

Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Mission Dates: 24 October to 04 November 2022

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 2000003884

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 6319-BD

Asia and the Pacific Division

Programme Management Department

Map of the Project Area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 28-11-2022

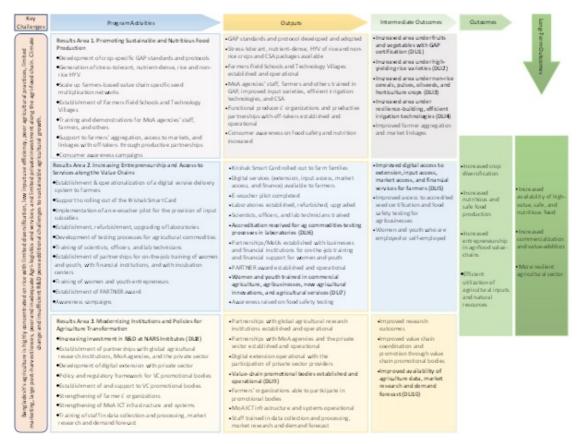
MEMO for Cofinancing "Type C" Projects

TO:	QAG					
THROUGH:	Reehana Raza Regional Director, APR					
FROM:	Arnoud Hameleers CPM, Bangladesh					
	Robert Delve PTL					
DATE:	11/04/2023					
SUBJECT:	Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience					
In line with	IFAD mainstreaming commitments, the project intends to qualify as:					
•	☐ Be gender transformative ☐ Be youth sensitive ☐ Be nutrition sensitive ☐ Prioritize persons with disabilities ☐ Prioritize indigenous peoples ☐ Include climate finance ☐ Build adaptive capacity					
Introduction	on					

1.

- 1. In 2021, the World Bank (WB) began designing the Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience (PARTNER), their first programme in the agricultural sector under the Program for Results (PforR) Financing modality. Given IFAD's previous co-financing of WB investments and IFAD's proven track record in the diversification of smallholder farming systems and climate-smart agriculture in the Country, the Government of Bangladesh (GoB) approached IFAD to request additional assistance to support this sectoral transformation program led by the WB. The IFAD Country Office in Bangladesh and the GoB have just completed the new Country Strategic Opportunities Programme (COSOP) for 2023-2028, which identifies the areas for investment under the IFAD12 financing cycle and aligns with the PARTNERs objectives. Co-financing PARTNER with US\$ 43 million allows IFAD to introduce the PforR mechanism in its portfolio in Bangladesh and extend its experience in result-based lending (RBL).
- 2. Throughout 2022, IFAD and the WB worked jointly with the GoB on the design of the PARTNER project. IFAD has participated in (i) one preparation and two pre-appraisal missions, (ii) regular meetings with the WB team, (iii) regular meetings with the WB and GoB and (iv) in the development of the WB Project Appraisal Document (PAD) (attached as an annex to this memo). The PARTNER passed the WB's decision meeting on 8 December. The final versions of the WB documents used in their meeting were submitted as part of the IFAD DRM process. The WB and IFAD are now planning joint negotiations. In the occurrence of major changes, QAG will be informed on the updates immediately.
- 3. The Program Development Objective (PDO) of PARTNER is to promote diversification, food safety, entrepreneurship, and resilience in the agri-food value chains of Bangladesh using the PforR instrument, which will support critical public investments and key policy actions to facilitate private sector's participation along the agri-food supply chain to deliver on agreed results.
- 4. PARTNER aims to support a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition, and building long-term sector resilience to climate change. It will support improvements in nutritional outcomes, particularly through promoting sustainable intensification, diversification, and management of integrated production systems in order to ensure food security and to help increaseachieve nutritional quality security. The Theory of Change (ToC) is presented below in Figure 1.

Figure 1. Theory of Change



- 1. The Program has three results areas (RAs): (1) promoting sustainable food and nutritious food production; (2) increasing entrepreneurship and access to services along the value-chains; and (3) modernizing institutions for agricultural transformation. These mirror the thematic areas of the GoB's Plan of Action of the National Agriculture Policy (PoA-NAP).
- 2. The PoA-NAP was launched in 2018, and its implementation started in 2020. The implementation of PoA-NAP covers five years (2021 to 2025), and under the 8th Five Year Plan (FYP), the agriculture sector will need an allocation of US\$ 2.9 billion to achieve the PoA-NAP objectives. The PoA-NAP proposes 13 areas of intervention called 'Programs' under three corresponding 'Thematic Areas'. The PARTNER RAs align with each program under these thematic areas.
- 3. Overall, the PoA-NAP aims to achieve safe, profitable agriculture and sustainable food and nutrition in Bangladesh by transforming the agriculture sector by improving research and development (R&D) capacity, extension system, agricultural mechanization, adoption of good agricultural practices (GAPs), irrigation systems, post-harvest management, marketing and logistics infrastructure and services, and food safety. Through the PoA-NAP, the GoB wants to ensure food security and improve the socioeconomic conditions of people by increasing productivity and production of crops, farmers' income, crop diversification, providing nutritious and safe food production, enhancing marketing systems, ensuring profitable agriculture and efficient utilization of natural resources and increased resilience the increasing climate shocks.
- 4. In line with the PforR approach, ten Disbursement Linked Indicators (DLIs) have been defined under the three PARTNER RAs. For each DLI, quantified objectives have been set, and lump sum payments agreed to be disbursed by the financiers once the targets have been achieved and independently verified. IFAD will co-finance all DLIs across the three RAs under a pari-passu arrangement.
- 5. IFAD's involvement builds on lessons learned through a series of investments in the agricultural sector, e.g., the Promoting Agricultural Commercialization and Enterprises (PACE) project, the National Agricultural Technology Programme (NATP) Phase I and II, and the Smallholder Agricultural Competitiveness Project (SACP). The underlying objectives of these projects included crop diversification, promotion of alternate livelihoods, strengthening of value chains, promotion of demand-driven and commercialized production of high-value commodities, capacity building of local service providers, promotion of climate adaptive practices enhancing resilience, and provision of technical assistance to the implementing agencies.
- 6. Accordingly, co-financing PARTNER as a large-scale sectoral project is key to scale-up IFAD experiences in Bangladesh towards increasing farmers' incomes by promoting crop diversification that contributes to a more resilient food system. Such investments are essential in view of the increasing intensity of climate change, external shocks imposed by the COVID-19 pandemic, and the global economic crisis, jeopardizing the livelihoods of smallholder farmers and the rural poor population.

Rationale for IFAD's Engagement in Co-financing and IFAD's Value Added

1. To date IFAD has successfully co-financed NATP Phase I and II (ongoing) with the WB in Bangladesh. Building on this experience and partnership, in early 2022, the WB approached the IFAD Country Office in Bangladesh to co-finance a larger flagship sectoral transformation PforR project because of IFAD's experience and clear added value in pro-poor approaches and support to young people and smallholder farmers in diversification, job creation, women empowerment. The PforR supports the PoA-NAP and is the first results-based lending operation in the agricultural sector in Bangladesh, marking it a

- historical milestone for GoB, IFAD, and the WB.
- 2. IFAD will continue and grow its partnership with the WB through this flagship program. IFAD will be able to pilot the PforR approach in its Country Program and access a large co-financing contribution to scale up its work and achieve the strategic objectives of the new Bangladesh COSOP 2023-2028.
- 3. While the IFAD Country Office in Bangladesh initiated discussions with additional potential development partners to explore possibilities to co-finance PARTNER, the Asian Development Bank (ADB) has decided to support the PoA-NAP with parallel financing. In this regard, IFAD and ADB will jointly ensure a mechanism to avoid double counting of results and beneficiaries. Discussions with the Islamic Development Bank (IsDB) for joining this flagship sectoral transformation program continue with the possibility of IsDB providing additional financing to a specific RA/DLI in the future.
- 4. PARTNER is so far the largest ever development project in the Agricultural Sector of Bangladesh and as a co-financier, IFAD has positioned itself in the forefront as a development partner in the agriculture and rural development sector. During the design process of this project, not only IFAD gave valuable technical inputs but also played an important role in the decision making process for a number of key issues. Partnership in this PForR project will further give IFAD visibility and a voice in policy dialogue, far greater than the economic value of our contribution. In addition, this partnership will provide experience and lessons in the national, regional, and global scale-up of the PforR approach.
- 5. IFAD is already an active member of the Local Consultative Group (LCG) on Agriculture, chaired by the Ministry of Agriculture (MoA). The PARTNER project will further strengthen IFAD's position in the LCG forum and allow IFAD to act as an agent of change and transformation in the agricultural sector of Bangladesh.
- 6. Given the size and outreach of the Program, joining forces with the WB in supporting sustainable rural livelihoods, food security, and nutrition in Bangladesh is a strategic investment for IFAD. PforR is greatly suited to support the implementation of the proposed policy reforms and investments under the NAP. In addition, the PforR approach will ensure full ownership by the GoB while strengthening the national institutional capacity of the MoA, fostering partnership with the private sector, and guaranteeing full alignment and integration with national and sectoral strategic development frameworks. Moreover, the Program aligns with COSOP and supports IFAD's ambition of doubling its impact by 2030.
- 7. IFAD's role in PARTNER will focus on supporting the pro-poor approaches and improved targeting, especially of youth and women, as it has done in the PACE, SACP, and NATP projects. IFAD's participation will also enhance the focus on women's empowerment, youth employment, and climate adaptation. The partnership with the WB and other partners will also strengthen IFAD's Monitoring and Evaluation (M&E) systems and overall monitoring of program objectives to document the DLIs.
- 8. RBL/PforR are innovative instruments, and IFAD has vast experience in co-financing agreements that can be leveraged. IFAD has lessons learned from the RBL Groundnut Competitiveness and Agriculture Diversification Project in Senegal, and can further learn from the experience of the WB in Bangladesh.

Lessons Learned

- 1. As key partner of the design and as co-financier of the PforR, IFAD has drawn its experience from previous investments, including (i) PACE (2014-2023, US\$ 58 million); (ii) NATP-2 (2016-2023, US\$ 23.8 million); and (iii) SACP (2018-2024, US\$ 66.5 million). These investments significantly transformed traditional and subsistence agriculture into market-oriented agricultural production systems with an essential role for the private sector and promoted structured dialogue between all value chain stakeholders.
- 2. The COSOP Completion Review for Bangladesh, conducted in 2022, concluded that all IFAD-financed projects have contributed to: (i) poverty reduction by creating employment opportunities and a supportive ecosystem for farm and non-farm sectors throughout the country, (ii) supporting comprehensive interventions in agriculture, microenterprises, financial services, rural infrastructure, (iii) promoted climate adaptation measures and expanded sustainable livelihoods for the poor and near-poor families, (iv) communication, market and irrigation infrastructure provided broad-based benefits, and (v) financial services and sector development by adopting a value chain development approach directly increased income of a large number of households.
- 3. Value chain approaches to farm and non-farm business development combined with financial services (for example, in FEDEC, PACE, and RMTP projects) have proven success in diversifying incomes and transforming livelihoods.
- 4. Increasing capacities of DAE to coordinate various departments under MoA and with private sector. DAE is the main implementation agency of both NATP2 and SACP, with several activities promoting multi-stakeholder collaborations. Examples of improved coordination include DAE and DAM collaborating on Farmer Business Schools, DAE, DAM and BADC offering services to a unified set of 10,000 farmer groups, BARI experiments showcasing DAE and BADC interventions in strategic locations, DAE and DAM collaborating on Grameen Euglena, and DAM commitment to offer marketing training to DAE and BADC officials.
- 5. Introducing technology based solutions has proven to be successful specially for providing input, information services, financial services etc. to small farmers and microenterprises. This also ensures that both the beneficiaries and extension workers can access and share information from different promising and reliable platforms which are already available in the market.
- 6. Improvements in small project/sector-level policy/practices developed under projects including PACE, NATP, and SACP have brought significant benefits to project beneficiaries. More systematic analysis and research-based policy development and advocacy will be necessary to engage with the government and produce more systemic changes.
- 7. Over the last decade, IFAD has successfully implemented projects in the country's most poverty-stricken and climatically vulnerable areas and included ultra-poor, marginal, and small farmers and women as a majority of beneficiaries. Emphasis on climate-resilient livelihoods promoted under CDSP IV (AF), HIILIP CALIP, , and PROVATI³ has produced excellent results in these extremely vulnerable districts.
- 8. One of the key lesson learned from the IFAD financed SACP project is that the ICO can play a crucial role to help the project achieve its PDO during implementation. For example, the ICO did a day long workshop and developed the concept of Farmer Business School, replacing the existing Farmer Field School and this has now proven to be very effective in ensuring a

- demand driven production approach by the farmers. Similar supervision and implementation support agreement has already been established with the WB to be provided to PARTNER during implementation. Moreover, The IFAD country office in a regular basis takes initiative to build synergy across its portfolio on various cross cutting themes and different technical aspects. The PARTNER project will also be part of these initiatives and benefit from learning from the others.
- 9. Through its SACP project, IFAD is also trying to support the Ministry of Agriculture to improve its overall monitoring and evaluation system, development intervention models (introduction of matching grant concept, introducing farmer business school model etc.) which will also support a smooth start up and implementation of PARTNER.

Contribution to SDGs and alignment with country sector and IFAD objectives

- 1. The Program will respond to Bangladesh's policy goals and contribute to key strategic priorities of the GoB. PARTNER is well aligned with key goals of the 8th Five Year Plan (8FYP, 2021-2025) of the GoB, which aims, amongst others, to reduce extreme poverty to 5 percent and moderate poverty to 12 percent, achieving major Sustainable Development Goal (SDG) targets. PforR will contribute to achieving SDG 1 through a sustainable increase in the incomes of poor farmer families and young rural entrepreneurs and to SDG 2 Zero hunger, as it will address the food and nutrition of its beneficiaries and their families. The program will also contribute to SDGs 5 and 10 providing better opportunities for both men and women and young people alike, and SDG 13 with activities to address climate change's impacts and build household resilience.
- 2. The Program will contribute to the key sectoral priorities identified by the PoA-NAP, such as promoting modern and sustainable agriculture development with an accelerated process of transformation from a predominantly semi-subsistence orientation to increasingly commercialized and diversified agriculture. PARTNER also contributes to the longer-term vision of the GoB, as laid out in the Bangladesh Delta Plan 2100 released in 2017, which aims at achieving long-term water and food security, economic growth, and environmental sustainability while effectively reducing vulnerability to natural disasters and building resilience to climate change and other challenges faced in the Delta through robust, adaptive, and integrated strategies and equitable water governance. PARTNER responds to these aims by enhancing beneficiaries' resilience through community mobilization and organization and promoting CSA practices in project activities.
- 3. The comparative advantage of IFAD in Bangladesh is its expertise in (i) value chain development in the agriculture sector; (ii) support for rural entrepreneurship, especially among the most vulnerable populations (women and youth); and (iii) increased climate resilience through resilient infrastructure and climate-smart agriculture. With its long-standing experience in the country, IFAD will provide the critical expertise to integrate and scale up successful activities into the Program and support the achievement of the Program's objectives. PARTNER fully aligns with the new country strategic opportunities programme (COSOP, 2023-2028) to promote rural prosperity by generating inclusive and resilient livelihood opportunities for smallholders, microentrepreneurs and marginalized groups. Building on Bangladesh's long-, medium- and short-term development goals, strategies, and targets as outlined in the Bangladesh Delta Plan 2100, Perspective Plan of Bangladesh 2021-2041, 8FYP, as well as the United Nations Sustainable Development Cooperation Framework (2022-2026) the COSOP 2023-2028 defines two strategic objectives (i) to strengthen the climate change adaptation and mitigation capacities of vulnerable rural communities through resilient infrastructure and climate-smart agriculture and (ii) to enhance the access of rural smallholders, microentrepreneurs and marginalized groups to financing, technology and markets so that they can diversify their economy and generate rural employment covered by all three RAs of the Program.
- 4. Furthermore the DLIs have a clear linkage to the IFAD strategic objectives of the IFAD strategic framework 2016-2025. For example, the 4 DLIs (1-4) under RA 1 are linked with SO1 and DLI 5, 7 and 9 are linked with SO2.

Definition of Target Groups and Targeting Strategy

- 1. The PforR will enable the resilient production and marketing of diverse, safe, and nutritious food in Bangladesh. The activities and policy reforms supported under the Program will benefit a broad range of stakeholders involved in the agricultural sector. The DLIs and underlying investments and policy reforms have been identified, selected, or designed to address the needs of small- and medium-scale farms, in addition to women and young people, for them to improve the resilience of their production systems for sustainable livelihoods.
- 2. Targeting strategy: IFAD's targeting approach, focused on smallholders and the rural poor, is central to the "leave no one behind" agenda. This inclusive and last-mile approach ensures IFAD can reach those most at risk of being overlooked and most severely vulnerable to climate and environmental risks. The targeting process ensures a robust consideration of climate-related risks and impacts and ensures that the programme increases adaptive capacity and resilience of target communities. The potential of climate and environmental risk to exacerbate the vulnerability of small and medium-scale agriculture actors is integral to the program to ensure sustainability of interventions.
- 3. It is estimated that approximately five million farmers will benefit from one or more of the Program activities, of which at least 40 percent will be women and 50 percent will be youth. The M&E system will disaggregate indicators by sex and age.

IFAD's Mainstreaming Areas

1. Women and Youth. PARTNER aims at empowering women's role in agriculture and increasing job opportunities for the youth. For this purpose, the youth will be trained in high-value agriculture, agribusiness, and technology services, and women's self-help groups will be promoted and strengthened to increase their access to training, services, credit, and markets. Both youth

and women start-ups will be supported. By empowering women's role in agriculture, farm income will be increased. PARTNER will contribute to a more dynamic agricultural sector, which will require more services. These, through proper training, innovative approaches (such as digital technologies), and the support of start-ups, could be provided by the youth, who are considered agents of change. Other barriers include possible low profitability of enterprises and personal aspirations, which PARTNER need to address during implementation while recognizing the locally, socially, and culturally specific, context-dependent meanings and significance of youth. Building on its sound experience and expertise in women's economic empowerment and youth inclusion in agri-food value chains, IFAD will provide valuable support in involving more women and youth (women and men) during the Program implementation and ensure the tracking of results across both groups. Following the WB processes, the Program is not categorised as youth-sensitive. Nevertheless, PARTNER will report on its results regarding number of women and youth with entrepreneurship training who are employed or self-employed and ensure that sex- and age-disaggregated data is available for all relevant DLIs.

- 2. Nutrition. PARNTER will support improvements in nutritional outcomes, particularly through results achieved under RA 1 promoting sustainable intensification, diversification, and management of production systems in order to ensure food security and to help achieve nutrition security. However, nutrition-sensitive interventions on household level are not foreseen under the Program.
- 3. Climate. PARTNER will address the vulnerability of the Bangladeshi agricultural sector to climate risks through promoting climate-smart practices for sustainable productivity growth with adaptation strategies for resilient production and livelihood systems. With the improvement of sustainable and resilient productivity, climate information systems and crop diversification, farmers and their families will benefit from better food security and economic growth by increased access to markets. As the PforR mechanism does not require a cost table, the MDB methodology for tracking climate finance is challenging to apply, therefore the formal tracking for this project is being waived.

Results Framework

- 1. During the pre-appraisal design mission, IFAD and the WB extensively reviewed the Results Framework of PARTNER, including a set of results indicators and an M&E plan. Regarding results indicators, the mission agreed on Program Development Objective (PDO) Indicators, Intermediate Results Indicators, and DLIs. Targets and definitions for indicators were also decided. IFAD's core indicators have been incorporated in the WB Results Framework and identified as such in ORMS logframe. Details of results indicators are provided in the PAD.
- 2. During the design, the World Bank Results Framework and the IFAD logframe were harmonized in a way so that the results are captured systematically and both World Bank and IFAD requirements are met. The setup and effectiveness of the M&E system will be closely monitored from the project start up phase.

Project Cost and Financing, including IFAD contribution

1. The total program costs are US\$ 1,343 million (Table 2). IFAD will co-finance this project with US\$ 43 million from IFAD12 resources (lending terms will be blend terms). This project presents IFAD with an opportunity to support its ambitious target of an international co-financing ratio of 1:0.4 and a domestic co-financing ratio of 1:0.6 under IFAD12. The PARTNER project will comprise 45.5 percent of the overall PoA-NAP program (USD 2,950 million), making it the driver of the implementation and achievement of the PoA-NAP.

2. Table 2: Summary of PARTNER Financing Plan

Source	Amount (Million US\$)	Share of Total Financing (%)
1. Government of Bangladesh	800	59.6
1.1. Available budget of government's ongoing and approved programs.	625	46.6
1.2. Incremental budget	175	13.0
2. Development Partners	543	40.4
2.1. IDA	500	37.2

2.2. IFAD	43	3.2	
Total	1,343	100	

- 1. The proposed PforR will disburse against a set of DLIs as described below. IFAD resources will be allocated across all ten DLIs under the three result areas with a pari-passu disbursement mechanism.
- 2. Disbursement will occur in accordance with demonstrated and verified evidence of achievement of DLIs. These DLIs represent key milestones in the achievement of Program results. They were selected based on the following criteria: i) a realistic balance between output and result indicators; ii) a focus on the highly strategic, key interventions that must be implemented effectively to achieve the PDO, the NAP's high-level objective for the agricultural sector, and contributions to climate change adaptation and mitigation; and iii) realism (SMART) in terms of implementation and scalability to prevent the disbursement of proceeds from being held up at critical stages of implementation.
- 3. The Department of Agricultural Extensions (DAE) will prepare consolidated reports on DLI results achieved using M&E data and reports submitted by the implementing agencies. All M&E data collected by the implementing agencies will be uploaded onto the management information system (MIS), which will be updated regularly. The third-party independent verification agency (IVA) will use the MIS data and undertake verification of the reported results. During the mission, a plan for disbursement arrangements and verification protocols was developed (see PAD annex 2), and the mission re-emphasized the importance of the IVA for a PforR mechanism.
- 4. Verification protocols for each DLI are detailed in the PAD. DLIs will be verified by an Independent Verification Agency (IVA) commissioned by DAE and submitted to the World Bank and IFAD as part of the supporting documentation to report achieved results. The World Bank and IFAD will also review the evidence for all DLIs during implementation. While the primary objective of the verification exercise would be to determine if the DLRs have been met, the process would be designed to determine why DLIs are not being met and thus provide valuable feedback for course correction during Program implementation.
- 5. It has been agreed that the Implementation, Monitoring and Evaluation Division (IMED) of the Ministry of Planning will be appointed as the IVA for this project. This is because IMED has been performing the same role in other PforR programmes in Bangladesh and their performance as an IVA has been deemed as satisfactory in those projects. The Ministry of Agriculture has submitted a draft Terms of Reference for the IVA which is now being reviewed by the World Bank and IFAD.
- 6. PARTNER disbursement will be contingent upon the Government furnishing satisfactory evidence to IDA and IFAD that it has achieved the Intermediate Results Indicators of the respective DLRs verified through an IVA. Application of withdrawal for the World Bank and IFAD financing will be sent to IDA any time after the World Bank has notified the GOB in writing that it has accepted evidence of achievement of the DLRs. The World Bank will review each withdrawal application and advise IFAD to make the necessary payment, if any. The withdrawal amount against the DLRs achieved will not exceed the amount of the financing confirmed for the specific DLRs. All withdrawals from the credit account will be made into a consolidated fund account in Bangladesh Taka maintained at the Bangladesh Bank.
- 7. The PforR will provide an advance of up to US\$135 million equivalent (of which US\$125 million from IDA). The advance will be done when the disbursement conditions are met, these include Letter of Appointment of key personal has been signed between the World Bank and IFAD, the Financing Agreement between the GoB, IDA and IFAD has become effective, and receipt of bank account information from the GOB The advance will be adjusted against disbursements due when the DLRs are achieved or in the later years of the Program.
- 8. The total allocation of funds under each DLI has been finalized (Table 3). A detailed overview of each DLI with its Intermediate Results Indicators and the respective funds allocated is outlined in the PAD.

3. Table 3: PARTNER DLIs, Allocated Budget and Lead Agencies.

Results Area	Disbursement Linked Indicator (DLI)	Allocation		
(Component)	(Subcomponent)	Total	IDA	IFAD
	DLI 1 – Development, rollout, and adoption of GAP standards in fruit and vegetable production (hectare)	59 730	55 000	4 730
Results Area I: Promoting Sustainable	DLI 2 – Development and adoption of High Yielding Rice Varieties (hectare)	55 386	51 000	4 386
and Nutritious Food Production	DLI 3 – Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops (hectare)	65 160	60 000	5 160
	DLI 4 – Adoption of improved and efficient irrigation technologies by farmers (hectare)	59 730	55 000	4 730

	DLI 5 – Expansion of digital agricultural service provision through "Krishak Smart Card" (number)	70 590	65 000	5 590
Results Area II: Increasing Entrepreneurship and Access to Services along the Value Chains	DLI 6 – Promotion of the accreditation of seed certification and food safety testing processes (number)	34 752	32 000	2 752
the value Chains	DLI 7 – Promotion of agri-food entrepreneurship for youth and women (number)	42 354	39 000	3 354
Result Area III:	DLI 8 – Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension services (percentage)	99 912	92 000	7 912
Modernizing Institutions and Policies for Agriculture Transformation	DLI 9 – Establishment and operationalization of value chain promotional bodies for select commodities (number)	30 408	28 000	2 408
	DLI 10 – Improvement of quality information system (agricultural statistics and market research services incl. foreign markets) (number)	24 978	23 000	1 978
Total Allocation (Thousa	nds of United States Dollars)	543 000	500 000	43 000

1. The PARTNER program audit will be carried out by the Office of the Comptroller and Auditor General (OCAG). There are ten audit directorates under the OCAG. Of the ten directorates, Foreign Aided Project Audit Directorate (FAPAD) has been mandated to carry out the audit of all donors funded development projects and programs including those having both foreign aid as well as GOB funding together. Program expenditure will be made using treasury system. A separate set of financial statement will be prepared based on iBAS for the program. The auditor will pay special attention to the risks of material misstatement of the financial statements due to fraud. Program External Audit Report will be submitted by March 31 each year (nine months after end of fiscal year). Considering (i) the size of the program; and (ii) the capacity of auditor in auditing PforR, the duration of audit was agreed to be nine month. As an exception to section 9.03(b) of the IFAD General conditions, to harmonise with the WB's policy, IFAD is seeking IFAD Executive Board approval for an exception to allow for the submission of annual audited financial statements nine months after each fiscal year-end. Audit reports including internal audit reports and management letter will be made available to IFAD.

Alignment of the Design Process

1. IFAD has actively contributed to the PforR design by mobilizing the required technical expertise through its Country Team, Project Technical Lead (PTL), and Project Delivery Team (PDT), as well as colleagues from the Regional Team and OPR and, have actively participated in the WB preparation and pre-appraisal missions while sharing knowledge on diversification, climate resilience and targeting from its PACE, SACP, and NATP I and II projects and provide support in regards of M&E. During the latest mission in October, it was agreed that the design process is aligned to the degree possible (see tentative timeline in table below). Furthermore, it was agreed that the WB and IFAD will jointly conduct the loan negotiation with the GoB.

Key Processing Steps	Responsibility	Proposed Date
Decision Meeting	WB	December 8, 2022
DRM Meeting	IFAD	December 16, 2022

Appraisal	WB/IFAD & MoA	February 26-28, 2023
Negotiations	WB/IFAD	March - April, 2023
Approval	WB/IFAD	April - May, 2023
ECNEC Approval	МоА	May, 2023
Signing of the Program	WB/IFAD & MOA	June 30, 2023

Supervision Arrangements

- 1. IDA has been appointed as a cooperating institution and will be formally responsible for supervising the PforR. In practice, the supervision of PforR will be done jointly by the WB, IFAD and the GoB. In conformity with IFAD's supervision and implementation support policy, at least one supervision mission will be held annually with regular follow-up on progress reports and results. Having a fully functioning CD-led ICO in Dhaka, Bangladesh, will facilitate close monitoring of progress and provision of implementation support. IFAD's longstanding strategic partnership with the MoA will ensure the efficient targeting of women and young people for the Program activities. In addition, all partners will work together to strengthen M&E systems and overall monitoring of the achievement of the DLIs.
- 2. PARTNER will be the first PforR in Bangladesh's agriculture sector. Implementing a new results-based approach requires significant support for M&E, including planning and execution. The M&E capacity will need to be strengthened during the PforR implementation. M&E for PARTNER will be conducted by a multi-tier mechanism led by the PCU as follows. Key results of the Program and progress towards results indicators will be regularly measured and reported to the World Bank and IFAD. PCU will be responsible for i) coordinating the entire M&E activities of implementing agencies at the Program level, ii) developing a Program level M&E plan, iii) consolidating M&E information, iv) monitoring, reporting, and evaluating the Program results, v) reviewing M&E plan of each DLI prepared by Lead Implementing Agencies, controlling quality and keeping consistency in M&E among activities, and vi) identifying any capacity and data gap to implement M&E plans and developing an action plan together with Implementing Agencies. Each agency will seek technical assistance during the Program period to enhance its M&E capacity. A PARTNER-supported Information Systems will support PCU.
- 3. The Mid-Term Review (MTR) will be organized at the beginning of Year 3 of the Program implementation. The MTR will be conducted according to the WB's applicable procedure, and IFAD will participate in the review to ensure alignment with IFAD's relevant policy and procedures. GoB will initiate the Project Completion Review (PCR) according to guidelines set forth by IFAD and the WBG and reviewed by the three parties. The PCR will document the achievement of the overall targets and project objectives, lessons learned during the implementation period, and possibilities for scaling activities.

Estimated Cost Sharing by IFAD for Design and Implementation

- 1. IFAD will sign a contract with the WB to be the cooperating institution that will be formally responsible for supervision and loan administration, even if IFAD staff will be actively involved in implementing PforR. The administration costs of the WB, as a cooperating institution, will be negotiated through the IFAD Country Office in Dhaka, Bangladesh.
- 2. PforR is an RBL operation, meaning no COSTAB will be prepared, and no Expenditure Categories will be defined. Instead, the government agencies responsible for implementation (DAE, DAM, BARI, BARC, BADC, BRRI, BMDA) will be pre-financing and implementing the program through their annual sector program budgets. To support this PARTNER will provide an advance of up to US\$135 million equivalent (of which US\$125 million from IDA and US\$10 million from IFAD). The advance will be adjusted against disbursements due when the DLRs are achieved and verified. If any/all DLIs are not achieved, a refund of the advance is required in accordance with the provisions of the financing agreement.
- 3. When the DLIs are achieved and proof of achievement is shared following a series of thorough and agreed-on verifications, the WB and IFAD will authorize disbursement of the amount incurred in line with the Financing Agreement and agreed for each DLI. Regular missions and a system of checks and balances will be put into place to ensure that public budget allocations and incurred expenditures align with the ambition of the PforR. Regular audits of financial accounts and procurement will be required.

- 1. As per IFAD's design policy of January 2020, the risk for type C projects is addressed by the Program initiator or the WB in this case. The WB identifies the technical risk of PARTNER as substantial. The project is designed to implement key elements of the GoB's strategy for agriculture development in Bangladesh. Thus, the design is not only comprehensive and supports the country's agricultural production system and its value chains, but also fits the country's diversified and challenging context. Furthermore, the lending instrument, PforR, is new to the client and it will require significant technical assistance to the implementing agencies to make them familiar with the implementation of a PforR operation. Seven agencies will be responsible for the implementation of the Program, which will demand extraordinary coordination efforts. This risk will be mitigated through (i) support by consultants and technical assistants to the Program Coordination Unit for an effective coordination of all seven agencies, (ii) mainstreaming capacity building within the Program Action Plan, and (iii) the establishment of a sound monitoring and reporting system.
- 2. Macroeconomic risks are assessed as substantial. Real GDP growth is expected to slow as import suppression measures disrupt economic activity. Higher inflation will dampen private consumption growth and export growth is expected to slow, as economic conditions in key export markets deteriorate. Addressing longstanding structural challenges would help sustain GDP growth over the medium term, including increasing domestic revenues, modernizing the tariff regime, resolving financial sector vulnerabilities, and improving the business climate.
- 3. Overall Environmental and Social Risks of the Program are assessed to be 'Moderate'. The Program activities have no significant and irreversible impacts on environment and the associated risk is rated as 'Moderate'. The construction of infrastructure would be limited to renovation, repair, and modernization of various facilities within the existing complexes housing the IAs, where limited number of labor force would be employed. As such, the risk would be minimal, effects would be localized and could be mitigated in situ by the contractors employed. There would not be any land acquisition and involuntary resettlement, there exists low risks of social discrimination and SEA/SH. Thus, the social risk is also rated as 'Moderate'. An E&S screening was carried out to identify E&S risks and impacts with respect to contextual, institutional, capacity, and reputational risks facing the Program. The potential investments may include small and medium-scale civil and construction works, use of digital technology, pest management using naturally tolerable pesticides/herbicides for HYV and other crops diversification, promoting improved and efficient irrigation facilities, agriculture mechanization, establishment of "Technology Villages" and "Growth Centers", scaling up post-harvest and processing technologies, scaling up integrated nutrient management and integrated plant nutrient system (IPNS), promoting rain water harvesting, testing laboratories, training, research, market linkage, youth engagement, and piloting motivational incentives. The anticipated E&S impacts are mostly localized and reversible and can be mitigated through proportionate management and mitigation measures. The Program Implementation Plan (PIP) will be developed at Program commencement and followed also for E&S risks management requirements and procedures (E&S Guidelines) and a subsequent E&S management framework (ESMF) including Environmental Code of Practice and social management procedures will be developed for the Program at the early stage of implementation. The PIP will be updated when the Program ESMF will be adapted.
- 4. While the World Bank has dedicated guidance on ESSA for PforR[1], IFAD's SECAP does not have specific guidance for PforR or RBL. In line with SECAP requirements for DRM, the PDT has prepared an offline SECAP screening (Annex 7). The risk rating will be revisited during appraisal and revised if necessary.
- 5. Institutional Capacity for Implementation and Sustainability (Substantial). The substantial risk refers to the challenges in coordinating various line agencies under the MoA and their capacity to implement the respective programs and achieve intended results. Mitigation of the coordination challenge is achieved through the proposed institutional framework that combines a PCU housed at DAE which has experience in coordinating activities across agencies and APCUs in each of the seven IAs with clear responsibilities for each regarding their leadership over the delivery of specific DLIs and their need to facilitate inputs from contributing IAs. The institutional capacity assessment carried during Program preparation also identified associated capacity building needs for both the MoA and the seven IAs.
- 6. Technical Design of Project or Program (Substantial). The project is designed to implement key elements of the GoB's strategy for agriculture development in Bangladesh. Thus, the design is not only comprehensive and supports the country's agricultural production system and its VCs, but it also fits the country's diversified and challenging context. However, PforRs are new to the client ministry. As a result, significant support has been provided to the MoA to improve its knowledge of this lending instrument and the technical capacity needs assessment carried out during Program preparation indicated the need to provide further technical assistance to MoA and the seven IAs during the first years of Program implementation to mitigate technical design risks linked to their adaption to a performance-based operation.
- 7. Fiduciary (Substantial): There are risks of possible delays in procurement due to a lack of technical preparation (ToRs, cost estimates, etc.) before the start of the procurement process and weak capacity in carrying out the procurement process, particularly bid/ proposal evaluation, and contract management. As a result, the Procurement risk is deemed to be substantial. The inherent financial management (FM) risk is also assessed as substantial considering the risks related to the program. given that many line agencies under the ministry will be engaged in implementation and procurement processes. This will be mitigated with the following: (i) Dedicated staff with training on FM and procurement for staff in all PIUs with comprehensive FM operation manual for the program, (ii) ensure coordination between budget and procurement planning amongst PIUs, mainstreaming IBAS for recording and monitoring budget planning and execution, (iii) implementing subordinate unit of BACS under the program, ensure support from MOA to implementing agencies, (iv) All PIUs, self-accounting entities will prepare and implement an internal audit modernization plan under the Program including by strengthening audit committees to enhance effectiveness of internal audit and institute risk-based internal audit, (v) regular reconciliation and (vi) Strengthen the audit committee and establish processes and mechanisms for completing annual audit, including procurement audit and resolving audit observations. Constitution of Audit Observation Resolution Committee at the Ministry to meet twice annually with the aim to take appropriate action in resolving (Serious Financial Irregularity) SFI of the program annually. The proposed program will contribute towards enhancing the internal audit capacity of the PIUs. Some areas of focus for technical assistance include: (1) PFM training for internal auditors to broaden their knowledge for effective audit; (2) further training and pilot audits on focused areas such as IT audits based on the internal audit manual; (3) professionalization of the internal auditors by offering internationally recognized professional certification courses; and (4) introducing audit management software

4. [1] PforR guidance on ESSA.pdf



Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 1: CI PDR

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department



FOR OFFICIAL USE ONLY

Report No: PAD4951

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT AND/OR INTERNATIONAL DEVELOPMENT ASSOCIATION

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED {LOAN/CREDIT/GRANT}

IN THE AMOUNT OF (SDRXX/EURXX/OTHER) MILLION (US\$ {0} MILLION EQUIVALENT)

TO THE

{PEOPLE'S REPUBLIC OF BANGLADESH}

FOR A

{PROGRAM ON AGRICULTURAL AND RURAL TRANSFORMATION FOR NUTRITION, ENTREPRENEURSHIP,

AND RESILIENCE IN BANGLADESH(PARTNER)}

{P176374} {DATE}

{Agriculture And Food Global Practice} {South Asia Region}

Note to Task Teams:

- 1. Please modify amounts above and provide equivalent in US\$ if applicable.
- 2. For DATE, enter the same date as on MOP.
- 3. Please delete one of the following boxes based on the PAD Guidance section on disclosure. Box should be aligned to the bottom of page (insert blank lines here to lower the box).

Please delete this note when finalizing the document.

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CURRENCY EQUIVALENTS

(Exchange Rate Effective {Sep 21, 2021})

Currency Unit =

= US\$1

US\$ = SDR 1

FISCAL YEAR
January 1 - December 31

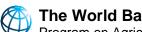
Regional Vice President: Martin Raiser

Regional Director: John A. Roome

Country Director: Abdoulaye Seck

Practice Manager: Gayatri Acharya

Task Team Leader(s): Valens Mwumvaneza, Md Mansur Ahmed, Jean Saint-Geours



ABBREVIATIONS AND ACRONYMS

ACG	Anticorruption Guidelines	LMP	Labor Management Plan
ADP	Annual Development Program	M&E	Monitoring and Evaluation
APCU	Agency Program Coordination Unit	MFD	Maximizing Finance for Development
APD	Agency Program Director	MIS	Management Information System
AWD	Alternative Wetting and Drying	MoA	Ministry of Agriculture
BADC	Bangladesh Agriculture Development	MoF	Ministry of Finance
BADC	Corporation	IVIOI	Willistry of Finance
BARC	Bangladesh Agriculture Research Council	MT	Metric Tone
BARI	Bangladesh Agriculture Research Institute	MTBF	Medium-Term Budgetary Framework
BDT	Bangladesh Taka	NAP	National Agriculture Policy
BMDA	Barind Multi-Purpose Development	NATP	National Agricultural Technology Program
DIVIDA	Authority	INA.	National Agricultural recimology Program
BRRI	Bangladesh Rice Research Institute	NARS	National Agriculture Research System
CIG	Common Interest Group	NPL	Non-Performing Loan
COVID-19	Corona Virus Disease of 2019	OHS	Occupational Health and Safety
CPF	County Partnership Framework	OIT	On-the-Job Training
CSA	Climate Smart Agriculture	PAD	
DAE	Department of Agricultural Extension	PAP	Program Appraisal Document Program Action Plan
DAM	Department of Agricultural Marketing	PARTNER	Program on Agricultural and Rural
			Transformation for Nutrition, Entrepreneurship,
DII	Disbursement Linked Indicators	DCH	and Resilience
DLI		PCU	Program Coordination Unit
DLR	Disbursement Linked Result	PDO .	Program Development Objective
DTT	DLI Technical Team	PEDP-4	Fourth Primary Education Development
- FC B	5	DEE4	Program
ECoP	Environmental Code of Practice	PEFA	Public Expenditure and Financial Accountability
E&S	Environment and Social	PFM	Public Financial Management
ESCS	Environmental, Social and Communications	PforR	Program for Results
	Section		
ESMF	Environment and Social Management	PIP	Program Implementation Plan
ECN AD	Framework	DNAD	Doct Mary and State Plant
ESMP	Environment and Social Management Plan	PMP	Pest Management Plan
ESMS	Environmental and Social Management	PoA	Plan of Action of the National Agriculture Policy
5004	System	222	
ESSA	Environmental and Social System	PPP	Public Private Partnership
540	Assessment	DCC	December Character Committee
FAO	Food and Agricultural Organization of the United Nations	PSC	Program Steering Committee
			Danilla Arra
FFS	Farmer Field School	RA	Results Area
FM	Financial Management	R&D	Research and Development
FY	Fiscal Year	RMG	Ready Made Garments
FYP	Five Year Plan	RFS	Rice Field Schools
GAP	Good agricultural practices	RISE	Resilience, Inclusion, Sustainability, and
1	,	1	Efficiency
GBV	Gender-Based Violence	SAM	Social Accounting Matrix
GDP	Gross Domestic Product	SCD	Systematic Country Diagnostic
GoB	Government of Bangladesh	SDG	Sustainable Development Goal
GRID	Green, Resilient, Inclusive Development	SEA	Sexual Exploitation and Abuse
GRM	Grievance Redress Mechanism	SEDP	Secondary Education Development Program
GRS	Grievance Redress Service	SH	Sexual Harassment
SINO	Shevance hearess service	J 311	Jenaal Harassinein

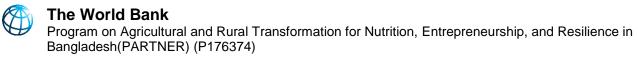


HYV	High Yielding Variety	TA	Technical Assessment
IA	Implementation Agency	ToC	Theory of Change
IFAD	International Fund for Agricultural	USAID	United States Agency for International
	Development		Development
IFC	International Financial Corporation	VC	Value Chain
IFSA	Integrated Fiduciary System Assessment	VAT	Value added tax
INM	Integrated Nutrient Management	WB	The World Bank
IPF	Investment Project Financing	WBG	World Bank Group
IPM	Integrated Pest Management	WHO	World Health Organization
IPNS	Integrated Plant Nutrient System	WO/P	Without-Project
IPR	Intellectual Property Rights	W/P	With-Project
IVA	Independent Verification Agency	WUA	Water Users Association



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DATASHEET

BASIC INFORMATION				
Country(ies)	Project	Name		
Bangladesh	_	n on Agricultural and ce in Bangladesh(PA		Il Transformation for Nutrition, Entrepreneurship, and R)
Project ID	Financin	ng Instrument	Doe	s this operation have an IPF component?
P176374	Program Financin	n-for-Results Ig	No	
Financing & Implementa	tion Mod	alities		
[] Multiphase Programm	natic Appr	oach (MPA)		[] Fragile State(s)
[] Contingent Emergency Response Component (CERC) [] Fragile within a non-fragile Country				
[] Small State(s)				[] Conflict
[] Alternate Procuremen	nt Arrange	ements (APA)		[] Responding to Natural or Man-made Disaster
[] Hands-on Enhanced Ir	[] Hands-on Enhanced Implementation Support (HEIS)			
Expected Project Approv	al Date	Expected Closing I	Date	
09-Mar-2023				
Bank/IFC Collaboration		Joint Level		
Yes		Complementary o	r Inte	rdependent project requiring active coordination
Proposed Program Development Objective(s) The Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and climate resilience in the agri-food systems of Bangladesh.				
Organizations				
Borrower:	Peo _l	ple's Republic of Bar	nglade	esh

Implementing Agency: Department of Agricultural Extension

Contact: Md. Benojir Alam

Title: Director General

Telephone No: 880255028369

Email: dg@dae.gov.bd

Implementing Agency: Ministry of Agriculture

Contact: Md. Sayedul Islam

Title: Secretary

Telephone No: 0

Email: secretary@moa.gov.bd

COST & FINANCING

SUMMARY

Government program Cost	2,950.00
Total Operation Cost	1,343.00
Total Program Cost	1,343.00
Total Financing	1,343.00
Financing Gap	0.00

Financing (USD Millions)

Counterpart Funding	800.00
Borrower/Recipient	800.00
International Development Association (IDA)	500.00
IDA Credit	500.00
Cofinancing - Other Sources (IFIs, Bilaterals, Foundations)	43.00
International Fund for Agriculture Development	43.00

The World Bank

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh(PARTNER) (P176374)

	Credit Amount	Grant Amount	SML Amount	Total Amount
Bangladesh	500.00	0.00	0.00	500.00
National Performance-Based Allocations (PBA)	500.00	0.00	0.00	500.00
Total	500.00	0.00	0.00	500.00

Expected Disbursements (USD Millions)

Fiscal Year	2024	2025	2026	2027	2028
Absol ute	149.00	47.00	88.00	106.00	110.00
Cumul	149.00	196.00	284.00	390.00	500.00

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture and Food

Contributing Practice Areas

Finance, Competitiveness and Innovation, Governance, Poverty and Equity, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate



8. Stakeholders	Moderate
9. Other	
10. Overall	Substantial
COMPLIANCE	
Policy Does the program depart from the CPF in content or in other significant respects? [] Yes	
	Triggered
Projects on International Waterways OP/BP 7.50	No
Projects in Disputed Areas OP/BP 7.60	No
Legal Covenants Conditions	



I. STRATEGIC CONTEXT

A. Country Context

- 1. Bangladesh made rapid social and economic progress in recent decades and reached lower middle-income status in 2015. Annual Gross Domestic Product (GDP) growth has averaged close to 6 percent since 2000. Strong labor market gains contributed to a sharp decline in poverty, with the national poverty rate falling from 48.9 percent to 24.5 percent between 2000 and 2016, while extreme poverty declined from 34.3 percent to 13.0 percent. However, the pace of poverty reduction has slowed in recent years even as growth accelerated, particularly in urban areas and in the west of the country. Annual consumption growth of the bottom 40 percent (1.2 percent) trailed that of the overall population (1.6 percent) from 2010 to 2016.
- 2. GDP growth declined to 3.4 percent in 2020 because of the COVID-19 pandemic, but rebounded in FY21 and FY22, although significant new headwinds have emerged. Real GDP growth rebounded as pandemic-related restrictions were progressively lifted in FY21, accelerating to an estimated 7.2 percent in FY22 as private consumption and investment growth strengthened. Exports rose by 31.3 percent (year-on-year), buoyed by a gain in readymade garment market share in Europe and the United States. However, the economy faces new headwinds. Inflation rose to 7.5 percent as of July 2022 from 5.3 percent a year ago following a global surge in commodity prices, prompting the Bank of Bangladesh to raise the main policy rate by 100 basis points. The current account deficit widened as imports rose, exacerbated by a decline in official remittance inflows. A series of import suppression measures were subsequently adopted, including rolling electricity blackouts, reductions in liquified natural gas imports, and reduced business and market hours. The overall balance of payments deficit rose to US\$5.4 billion in FY22, and gross foreign exchange reserves declined to US\$36.5 billion by September 2022.
- 3. **GDP growth is expected to decelerate to 6.1 percent in FY23.** Rising inflation, uncertainty in the commodity price outlook, import suppression measures and deteriorating global growth prospects will weigh on economic growth. Inflation is expected to dampen growth in private consumption, with a disproportionate impact on the poor. Import suppression measures and gas rationing will hamper industrial activity and constrain private investment. Remittance inflows are expected to rise, underpinned by a higher outflow of workers and resilient demand for workers in the gulf region, supported by elevated oil prices. However, external sector pressure is expected to persist. Export growth is expected to moderate due to weakening global growth, while imports will remain elevated due to higher prices of consumer products, intermediate goods, and commodities. Subsidy and incentive expenditures are expected to rise in FY23. However, lower government investment expenditure and moderate government consumption are expected to keep the fiscal deficit within 5 percent of GDP.
- 4. Structural reforms are needed to support a faster pace of growth over the medium term. Shocks to all major components of domestic demand implies that GDP growth will remain just above 6 percent up to FY24. The balance of payments is projected to return to surplus as import growth moderates over the medium term, if appropriate monetary and exchange rate policies are adopted. To achieve the vision of attaining upper middle-income status by 2031, Bangladesh needs to create jobs and employment opportunities by creating a

¹ Household Income and Expenditure Surveys 2000/01 and 2016/17



competitive business environment, diversifying exports, increasing human capital, building efficient infrastructure, deepening the financial sector and establishing a policy environment that attracts private investment.

B. Sectoral (or Multi-Sectoral) and Institutional Context

- 5. Bangladesh has had an impressive track record of agricultural growth since the mid-1990s. The sector grew by over 4 percent annually between 1996 and 2019² and domestic food production almost doubled during the last two decades. Much of the past success in agriculture was driven by the policy reforms implemented since the 1980s, followed by strategic investments in research and infrastructure.³ The reforms were made in order to liberalize the agricultural inputs market in the 1980s, particularly in relation to fertilizer and irrigation. These were then followed by reforms in the seed sector in the 1990s. These reforms were accompanied by strategic investments in agricultural research and development (R&D) and extension, with a sustained policy focus on increasing rice production. As a result, Bangladesh achieved rice self-sufficiency and overall food security, two paramount objectives of past agriculture strategies. Other crops, particularly horticulture crops, have also maintained sustained growth since the 2000s and the land area under fruits, flowers, fiber, spices, and pulses increased by more than 60 percent between 2008 and 2018.⁴
- 6. **Agriculture**⁵ is a key driver of rural poverty reduction in Bangladesh. Primary agriculture is a major source of employment, accounting for 54 percent of rural employment and 43 percent of national employment.⁶⁷ Between 2000 and 2010, agriculture growth contributed 69 percent to rural poverty reduction in the country, with a more modest contribution of about 27 percent between 2010 and 2016, as the impacts of the earlier sector reforms and investments on productivity started plateauing and agricultural growth started trending downward (see Figure 1), with increased growth opportunities in industry and services.⁸

12.0

10.0

10.0

6.0

4.0

2.0

0.0

0.0

GDP Agriculture Industry Services

Figure 1. Annual Trend Growth Rates (Percentage)

Source: World Development Indicators

² World Bank. 2021. World Development Indicators.

³ Dynamics of Rural Growth in Bangladesh, World Bank 2016.

⁴ Bangladesh Bureau of Statistics. 2020. Agriculture Census 2018.

⁵ Agriculture sector in Bangladesh is comprised of three subsectors- crop (including horticulture), livestock, and fisheries.

⁶ Bangladesh Bureau of Statistics. 2017. Quarterly Labor Force Survey 2016.

⁷ World Bank. 2019. Bangladesh Poverty Assessment.

⁸ World Bank 2020. Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities.





- 7. To continue the process of agriculture transformation towards higher productivity and diversification, with higher income earning potential for rural producers, a new wave of reforms and investments is needed. Such reforms must help reduce the current yield gaps in rice, help the sector diversify to take advantage of the shifting urban consumer demand, and expand services to boost productivity, marketing, and processing. **Firstly,** a substantial push in improving access to improved technologies, in partnership with the private sector, is needed. There remain substantial rice yield gaps, particularly during the Aman and Aus seasons (i.e., over 75 percent yield gap). The HYV seeds and technologies newly released by the Bangladesh Rice Research Institute (BRRI) would need to be disseminated more broadly. New stress-tolerant/low-carbon HYV and climate-smart technologies need to be developed and disseminated. Second, crop diversification and changes in cropping choices will need both policy reforms and investment support to address binding constraints such as land, soil health, water, and climate impacts. With the limited scope for land and irrigation expansion, increasing rice productivity could help release land during the Boro season for crop diversification while maintaining food security. Improving rice technology and diversification would enhance farm profitability since rice production has become comparatively less profitable due to a significant increase in labor and irrigation costs (e.g., farmers make US\$56 per hectare from rice cultivation, whereas returns on alternative crops can range between US\$300 and US\$600 per hectare⁹). Moreover, a more diversified production base would contribute to increasing the sector's climate resilience, as well as catering to demands for a growing urban population and a more complex food system. With rapid urbanization and fast income growth, the demand for fruits, vegetables, meat, eggs, and fish is expected to expand by more than 50 percent by 2030. However, domestic production faces challenges in meeting that growing demand, which has resulted in a three-fold increase in food imports, from US\$3.6 billion in 2007 to US\$10.7 billion in 2017. Third, crop diversification could increase feed production to support the growing livestock and fisheries sector while creating new opportunities for these sectors to in turn improve productivity, food safety, and export potential.
- 8. **Agricultural diversification will support additional improvements in nutritional outcomes.** Bangladesh has made significant strides in reducing malnutrition. Nationally, the prevalence of stunting fell from 41 percent in 2011 to 28 percent in 2019.¹⁰ However, the food consumption pattern remains poorly diversified, with as much as 64 percent of the dietary energy supply coming from cereals in 2016-17¹¹ and with an inadequate protein and micronutrient intake. Fruit and vegetable consumption in Bangladesh is, for instance, only 204 g/person/day, significantly below the minimum dietary requirements defined by the Food and Agricultural Organization of the United Nations (FAO) and the World Health Organization (WHO) of 400 g/person/day.
- 9. Several on-farm productivity constraints and off-farm value addition and commercialization constraints are slowing down the transformation and diversification of the agriculture sector. On-farm productivity constraints include (i) land fragmentation (around 85 percent of farm households operate less than 1 hectare, Ha)¹² and informality in land rental markets; (ii) limited access to quality seeds for non-paddy crops; (iii) limited knowledge and adoption of good agricultural practices (GAP); and (iv) limited use of farmer aggregation models, which constrains the delivery of extension services, access to finance, and market linkages. Key constraints hindering off-farm value addition and commercialization include (i) the limited number of formal off-takers and limited market linkages and coordination between such off-takers and producers; (ii)

¹¹ Government of Bangladesh. 2018. National Agriculture Policy

⁹ World Bank 2020. Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities.

¹⁰ USAID. 2021. Bangladesh: Nutrition Profile

¹² World Bank 2020. Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities.





inadequate and costly marketing infrastructure and logistical services, which limit value addition, contribute to post-harvest losses, and increase costs along the agri-food value chain (VC); and (iii) inadequate upholding of appropriate food safety practices and product quality standards needed to access growing lucrative markets, both domestic and export. Foodborne diseases are causing an estimated US\$1.5 billion productivity loss per year and poor compliance with international food safety and quality standards is estimated to have contributed to the 9 percent decline in food exports over the past 10 years. The country lacks proper testing facilities, skilled scientists, and laboratory technicians. Some exporters and entrepreneurs are unaware of testing requirements and the MoA lacks a public-private partnership (PPP) framework to set up laboratories and facilitate testing certification. On-farm and off-farm constraints are exacerbated by other cross-sectoral issues such as access to finance and overall investment climate and competitiveness challenges. The contribute of the post of the past 10 years are unaware of testing certification. On-farm and off-farm constraints are exacerbated by other cross-sectoral issues such as access to finance and overall investment climate and competitiveness challenges.

- 10. Within this environment, many factors limit the ability of youth and women to fully benefit from opportunities presented by the transformation of the agriculture sector. While women's labor force participation remains less than half of that for men, most working women are engaged in agriculture. The number of women engaged in agriculture increased from 7.7 million in 2005-06 to 11.2 million in 2015-16, which accounts for 44 percent of agricultural employment. 15 Despite this, women are mostly engaged in less lucrative post-harvest activities such as threshing, with comparatively limited involvement in production and marketing. The share of rural businesses owned by women is just 7.7 percent, and the share is much lower for agribusinesses (just below 2 percent¹⁶). Women are constrained by social norms along with limited technical and business skills, voice, and agency, access to inputs, training, and technology. Compared to older men, women and the youth lag behind in access to services, finance and market information. ¹⁷ Only 25 percent of youth between 25 and 34 years of age are engaged in agriculture compared to 60 percent of those between 35 and 64 years of age. 18 Despite greater access to microfinance, Bangladesh has one of the world's widest financial gender disparities.¹⁹ Moreover, higher levels of women's labor services are unremunerated. About 11 percent of women who report working are engaged in unpaid farm activities, compared to only 2 percent of men.²⁰ Unemployment is rising among youth and is particularly significant among female youth.²¹ Efforts to create employment for women and youth in higher agri-food VCs are essential to cope with post-COVID impacts and climate change, and to ensure them a growing space in the country's evolving food system.²²
- 11. Bangladeshi agriculture is significantly vulnerable to climate change impacts. Climate change is already affecting agricultural production through temperature increases, sea level rise, saltwater intrusion, variation

¹³ World Bank 2019. The Safe Food Imperative: Accelerating Progress in Low- and Middle-Income Countries. Agriculture and Food Series.

¹⁴ To tackle the impact of some of these cross-sectoral constraints on the outcomes of PARTNER, the Program operates with the International Finance Corporation (IFC), which works on improving the overall business climate and the World Bank has an on-going memorandum of understanding (MoU) with IFC to work on improving food safety conditions in Bangladesh.

¹⁵ World Bank 2020. Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities.

¹⁶ World Bank. 2021. Promoting Rural Enterprises for Inclusive Jobs and Post-Covid Recovery in Bangladesh: Insights from An Enterprise Survey

¹⁷ The Ministry of Youth and Sports has developed training programs for youth, but hands-on training programs and support for startups are lacking.

¹⁸ Farole, Thomas, and Yoonyoung Cho. 2017. Jobs Diagnostic Bangladesh. Job Series Issue 9, Washington, DC: World Bank.

¹⁹ Only 36 percent of women have access to a bank account, compared to 65 percent of males. Roest, J. 2018. "2017 Global Findex: Behind the Numbers on Bangladesh."

²⁰ World Bank. 2021. Bangladesh Rural Income Diagnostic.

²¹ Farole, Thomas, and Yoonyoung Cho. 2017. Jobs Diagnostic Bangladesh. Job Series Issue 9, Washington, DC: World Bank.

²² World Bank. 2021. Bangladesh Rural Income Diagnostic.

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in the frequency and intensity of rainfall, and extreme weather events. These impacts affect crop productivity while increasing the risk of pest infestations. Increased soil and water salinity due to sea level rise is expected to result in a 15.6 percent yield reduction in rice HYVs by 2050.²³ Soil salinity is affecting 62 percent of coastal land, and sea level rise may reduce available cropland by about 25 percent in coastal divisions of the country. Late monsoon arrival can lead to water stress, and climate-induced changes in precipitation put pressure on groundwater recharge and surface water, affecting irrigation water supply and the timing of key cropping activities.

- 12. The impact of climate change on crop and livestock production is exacerbated by environmental degradation caused by poor or maladapted farming methods. This includes monocropping and high levels of synthetic pesticides and fertilizers, which are not only an inefficient use of resources but also acidify the soil, reduce water quality, depress crop yields, threaten food safety, undermine food exports, and increase greenhouse gas (GHG) emissions. GHG emissions from agriculture reached 91 MtCO2e in 2020, which represents 38 percent of national emissions, with livestock and rice accounting for 50 percent and 33 percent of agricultural emissions, respectively. In December 2020, the Ministry of Agriculture (MoA) issued the "Bangladesh Good Agricultural Practices Policy 2020", which includes measures to combat GHG emissions, among other things, and which is yet to be implemented. In addition, unsustainable water use patterns and arsenic contamination pose additional risks to sustainable agricultural production systems. In fact, water use efficiency in Bangladesh is one of the lowest in South Asia (e.g., MoA estimates that only 3 percent of total irrigated land uses water efficiently). Small and fragmented landholdings reduce this efficiency even further. Technologies to increase water use efficiency in agriculture have been introduced by Bangladesh Agricultural Development Council (BADC) and Barind Multipurpose Development Authority (BMDA) but are yet to be widely disseminated. They include solar pumping, buried pipes, energy-efficient sprinklers, and drip irrigation.
- 13. Addressing the above challenges will require reforms to enable the participation of both the public and private sectors to support rapid improvement across the agriculture sector. Current global constraints notwithstanding, Bangladesh appears prepared to usher in a new generation of reforms in the agriculture sector and to enable a greater level of private sector participation, including via farmer and producer organizations. Increased value addition and higher productivity will need to respond to market requirements, using market information systems, technology, and connectivity instruments.
- 14. On-farm productivity and climate resilience constraints will require reforms that empower farmers' institutions, increase access to quality seeds, agricultural mechanization, and encourage widespread adoption of GAP and climate smart agriculture (CSA) technologies and practices, along with improvements in the delivery of public and private extension services. Specifically, it will require (i) strengthening farmers' institutions such as producer organizations, common interest groups and water users' associations, which can help overcome land fragmentation, informality, and aggregation constraints; (ii) ensuring availability of, and access to quality and resilient seed varieties and other inputs to close the current yield gaps, notably by removing the remaining constraints for private sector participation in input markets; (iii) developing and promoting CSA technologies for greater resilience to climate change; (iv) promoting the use of labor-saving mechanization, particularly for crop establishment and harvesting; and (v) ensuring appropriate extension advice and climate information services to farmers to encourage uptake of CSA, more efficient use of water resources and agricultural inputs and adoption of GAP (including integrated pest management IPM).

²³ World Bank. 2019. Bangladesh: Climate-Smart Agriculture Investment Plan.





- 15. Addressing off-farm constraints will require strengthening food safety systems and facilities, fostering better post-harvest management practices, improving marketing and logistics infrastructure, and encouraging greater private sector participation, coordination, and market linkages along the agri-food VC. Needed actions include (i) strengthening food quality control measures and food safety standards, and making certification services more accessible; (ii) private sector led development of better marketing infrastructure and more effective logistical services, with a conducive policy environment promoted by the government; (iii) liberalizing input markets and promoting private sector participation in innovation, R&D, seed production and distribution, extension services, off-farm marketing and transport logistics, and processing; and (iv) expansion of VC promotional bodies to facilitate coordination and market linkages between participants from all stages of the same agricultural commodity VC and expand commodity markets through market research, product development, quality standard setting, and advertising and consumer awareness campaigns.
- 16. Agricultural public policy and expenditures need to be reoriented to strengthen the delivery of key public goods services such as R&D and extension and to improve efficiency in the delivery of agriculture support programs. In a departure from the heavy focus on rice and fertilizer subsidies of past agricultural policy, the Plan of Action (PoA) of the National Agricultural Policy (NAP) of 2018 emphasizes policies and investments that support diversification, nutrition, and VC development, while paying attention to rice for maintaining food security. With only around 5 percent of Bangladesh's 16.5 million farm families visited annually by State agricultural agents, improved access to extension is an area of urgent reform. To address this, the Department of Agricultural Extension (DAE) plans on rolling out the "Krishak Smart Card" (KSC) to provide digital extension services and improve farmers' access to inputs and financial services. This system will require developing a farmers database, with adequate content, partnerships, and mobile phone interface. The PoA aims to raise expenditures in agricultural R&D, strengthen extension service delivery, promote food safety, enhance inputs use efficiency, and mainstream climate resilience. Institutes in the National Agricultural Research System (NARS) lack capacity in infrastructure and human resources, as well as a well-functioning performance evaluation system to demonstrate progress in quality research, and prioritize and allocate scarce resources to R&D activities with the highest potential social and economic returns. This is in part hindered by the lack of quality agricultural statistical data, market information, and sector analysis, all of which are crucial for evidence-based policy making. Specific actions include (i) investments to improve R&D capacity, particularly for crops other than rice, and removing the remaining regulatory and institutional barriers to private sector participation (e.g., streamlining the cumbersome and lengthy process for registering new varieties); (ii) the generation of new stress-tolerant and nutrient-dense rice and non-rice varieties; (iii) completing the deployment, and expanding the use of the KSC; (iv) strengthening information and communications technology (ICT) infrastructure and systems, and human resource capacity for data collection, processing, and analysis; (v) (v) fostering collaboration between VC participants and financial service providers (including for farmers using the KSC); and (vi) establishing Technology Villages to facilitate technology dissemination.

C. Relationship to the CPS/CPF and Rationale for Use of Instrument

17. The Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience (PARTNER) is fully aligned with the Bangladesh Country Partnership Framework FY2016-2020 (CPF, Report number: 103723-BD), which was extended to FY2021 after the Performance and Learning Review (PLR, Report number: 141189-BD). PARTNER will contribute to (i) Objective 1.4 (Enhanced business environment and trade facilitation) by addressing regulatory and policy bottlenecks to agri-food VC development and private sector participation, in collaboration with IFC on food safety; (ii) Objective 2.4 (Enhanced income opportunities for





- the poor) by improving agricultural income opportunities for a large share of the rural poor through increased productivity and diversification, with particular focus on women; and (iii) Objective 3.3 (Increased adoption of sustainable agricultural practices) by boosting climate resilience through CSA practices and technologies.
- 18. PARTNER is also well aligned with the key priorities identified in the Bangladesh Systematic Country Diagnostic (SCD) - 2021 Update, the concept note (CN) of the Bangladesh CPF - FY23-27, the Bangladesh Country Climate and Development Report (CCDR) and the World Bank Group's (WBG) Global Crisis Response Framework (GCRF). The SCD update identified "productive and sustainable management of natural capital" as a key priority and stressed the importance of agricultural growth from a combination of higher agricultural productivity, greater diversification towards high-value crops, and developing a modern resilient agri-food supply chain. The Bangladesh CCDR highlights the promotion of crop diversification and of the adoption of CSA as critical actions to be undertaken by the agriculture sector to build climate resilience. PARTNER will support two key objectives of the proposed CPF, as highlighted in the CN: (i) sustainability and productivity in the use of natural capital for green growth and energy transition; and (ii) effectiveness in the management of the Delta area to accelerate climate resilience. PARTNER is aligned with three of the four pillars of the GCRF: (i) Responding to Food Insecurity; (ii) Strengthening Resilience; and (iii) Strengthening Policies, Institutions and Investments for Rebuilding Better. The Program is also consistent with the WBG's Country Private Sector Diagnostic (CPSD), which puts emphasis on reforms around input markets, food safety, and R&D to diversify agricultural production towards higher value products and VC development to meet the growing demand for food and create jobs.
- 19. Elevating the WBG's engagement to a Program for Results (PforR) instrument is consistent with the evolving nature of the WBG partnership with Bangladesh in the agricultural sector, which is increasingly focusing on enhancing the Government of Bangladesh's (GoB) capacity to implement its own programs. The WBG has been a leading partner for agriculture development in Bangladesh and has significantly contributed to the sector's transformation over the last thirty years. It supported the GoB to initiate major institutional reforms in the sector, which resulted in the establishment of successful demand-driven agricultural research and advisory services and contributed to the country's success story in becoming self-sufficient in rice, fish, and meat. An example is the implementation of the National Agricultural Technology Program, Phase 1 (2008-2014 - NATP-1) and Phase 2 (2016-2023 - NATP-2), which has been co-financed by the World Bank and the International Fund for Agricultural Development (IFAD). The WBG's medium term strategy in the sector is to support the GoB in strengthening the sector's overall performance including activity planning, coordination of interventions, monitoring program implementation, and tracking results. A PforR instrument is thus consistent with this strategy and can help consolidate the significant strategic shifts in dialogue and policy while continuing to build implementation capacity with a focus on results. The PforR will contribute to the impactful implementation of the GoB's own programs - principally the PoA of the NAP - by leveraging WBG financing to provide incentives for Bangladesh to sharpen its focus on public expenditure performance and results, and on strengthening institutional delivery mechanisms. These mechanisms include stronger coordination and collaboration within Government agencies as well as policies and frameworks for crowding in the private sector. The PforR will support capacity building, including skills enhancement, and upgrading decision making systems and tools for an effective results-oriented institutional culture. It is important to note that Bangladesh has fully met the key criteria for the PforR, namely the existence of a credible government program (i.e., PoA of NAP), a solid associated expenditure framework, and credible country systems in terms of fiduciary and safeguards.





II. PROGRAM DESCRIPTION

A. Government Program

- 20. The objective of the GoB's PoA of the NAP is to achieve safe and profitable agriculture, and sustainable food and nutrition security in Bangladesh. The NAP aims to transform the agriculture sector by improving the following: R&D capacity, extension service delivery, agricultural mechanization, GAP, irrigation efficiency, post-harvest management, marketing and logistics infrastructure and services, and food safety, among others. Through the NAP's PoA, the Government seeks to ensure food security and improve the people's socioeconomic conditions by increasing crop productivity and production, promoting crop diversification, ensuring nutritious and safe food, improving marketing systems, ensuring profitable agriculture, encouraging efficient utilization of natural resources, and promoting resilience to climate shocks.
- 21. The NAP was launched in 2018 and its implementation PoA was finalized in 2020. The PoA's implementation covers a five-year period, from 2021 to 2025. According to the provisions of the 8th Five-Year-Plan (FYP), the agriculture sector will need an allocation of US\$2.9 billion to achieve the PoA's objectives. The PoA proposes 13 broad areas of intervention called "programs" under 3 corresponding "Thematic Areas". The NAP is expected to cover a period of ten years as previous NAPs did. Therefore, this PoA is a first phase, expected to be followed by a second one covering the same NAP orientations. PARTNER's Results Areas (RA) will be broadly aligned with each PoA program under the following NAP thematic areas.
- 22. Thematic Area 1: Promoting Sustainable Food and Nutrition Security. This Thematic Area aims at promoting sustainable intensification, diversification, and management of production systems in order to ensure food security and to help achieve nutrition security. This must be achieved in the face of an increasing population, projected to be 199.6 million by 2031, up from the current 170 million, and a binding constraint of projected reduction in available land for agriculture (due to land use conversion and climate loss). This will require strong measures to increase climate resilient productivity on the one hand and increase input use efficiency on the other. Six programs are grouped under this theme: (i) Crop diversification and sustainable production of safe and nutritious food; (ii) Sustainability of production systems and management of natural resources; (iii) CSA; (iv) Strengthening specialized agriculture, protected cultivation, and production systems in special geographical areas; (v) Efficient and economic extension services for fast and effective transfer of technology; and (vi) Enhancing availability of quality inputs including credit, storage, and marketing.
- 23. Thematic Area 2: Increasing Income and Livelihood Opportunities for Farmers. This aims at increasing income for farmers by promoting systems that will help them reduce the cost of cultivation, reduce postharvest losses, and improve marketing of their agricultural products through the following five program areas: (i) Post-harvest management (agro-processing and development of safe and quality VCs); (ii) Appropriate scale mechanization and use of clean energy at farm-level; (iii) Promotion of industrial and export-oriented crop clusters and collaboration with the private sector; (iv) Increasing real income of farmers, laborers, and women farmers for their empowerment; and (v) Attracting, skilling, and retaining youth for innovation-based development in agriculture
- 24. Thematic Area 3: Modernization of Agricultural R&D, Education, and Extension. This aims at supporting R&D for the development of problem-solving technology that will help increase productivity while maintaining a green and safe environment through judicious use of external inputs such as chemical fertilizers and pesticides and good management of natural resources such as soil, water, and biodiversity. This theme has two main



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program areas of: (i) Quality investment in agricultural research for development; and (ii) Intellectual property rights, sovereignty on natural resources, and international partnership.

B. Theory of Change

25. The Theory of Change (ToC) of the proposed Program is presented in Figure 2 below. The principal premise of the TOC is that agricultural land is declining in Bangladesh, while the population is growing, and climate change is a major threat. Bangladesh's agriculture is highly concentrated on rice, with limited diversification. However, growth in rice productivity has slowed, and its financial returns are very low compared to alternative crops (such as fruits and vegetables) whose urban demand is rapidly growing. In addition, malnutrition remains a major concern. This requires reorienting strategic priorities of the sector towards more rapid diversification, along with carefully balanced attention to rice. While PARTNER will support rice productivity increase by exploiting the remaining yield gaps, the Program's major focus is on investments in research (with increased attention to non-rice crops), extension services, food safety, value-chain organizations, entrepreneurships, and input use efficiencies to promote diversification in the sector. PARTNER also includes an E-voucher pilot for the provision of efficient input subsidy delivery mechanism whose lessons can inform the future repurposing of the ongoing fertilizer subsidy program. This approach will safeguard past achievements in ensuring food security while injecting new momentum into agricultural transformation and will be critical in building the sector's climate resilience.



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Figure 2. PARTNER's Theory of Change

Program Activities	Outputs	Intermediate Outcomes	Outcomes	
Results Area 1. Promoting Sustainable and Nutritious Food Production • Development of crop-specific GAP standards and protocols • Generation of stress-tolerant, nutrient-dense, rice and non-rice HYV • Scale up farmers-based VC specific seed multiplication networks • Establishment of Farmers Field Schools and Technology Villages • Training and demonstrations for MoA agencies' staff, farmers, and others • Support to farmers' aggregation, access to markets, and linkages with off-takers through productive partnerships • Consumer awareness campaigns	GAP standards and protocol developed and adopted Stress-tolerant, nutrient-dense, HYV of rice and non-rice crops and CSA packages available Farmers Field Schools and Technology Villages established and operational MoA agencies' staff, farmers and others trained in GAP, improved input varieties, efficient irrigation technologies, and CSA Functional producers' organizations and productive partnerships with off-takers established and operational Consumer awareness on food safety and nutrition increased	Increased area under fruits and vegetables with GAP certification (DLI1) Increased area under high-yielding rice varieties (DLI2) Increased area under non-rice cereals, pulses, oilseeds, and horticulture crops (DLI3) Increased area under resilience-building, efficient irrigation technologies (DLI4) Improved farmer aggregation and market linkages		Long-Term Outcomes
Results Area 2. Increasing Entrepreneurship and Access to Services along the VCs •Establishment & operationalization of a digital service delivery system to farmers •Support to rolling out of the Krishak Smart Card •Implementation of an e-voucher pilot for the provision of input subsidies •Establishment, refurbishment, upgrading of laboratories •Development of testing processes for agricultural commodities •Training of scientists, officers, and lab technicians •Establishment of partnerships/MoUs for OJT of women and youth, with financial institutions, and with incubation centers •Training of women and youth entrepreneurs •Establishment of PARTNER award •Awareness campaigns	Krishak Smart Card rolled out to farm families Digital services (extension, input access, market access, and finance) available to farmers E-voucher pilot completed Laboratories established, refurbished, upgraded Scientists, officers, and lab technicians trained Accreditation received for ag commodities testing processes in laboratories (DLI6) Partnerships/MoUs established with businesses and financial institutions for OJT, incubation, and financial support PARTNER award established and operational Women and youth trained in commercial agriculture, agribusinesses, new agricultural innovations, and agricultural services (DLI7) Awareness raised on food safety testing	Improved digital access to extension, input access, market access, and financial services for farmers (DLI5) Improved access to accredited seed certification and food safety testing for agribusinesses Women and youth who are employed or self-employed	Increased crop diversification Increased nutritious and safe food production Increased entrepreneurship in agri-food VCs Efficient utilization of agricultural inputs and natural resources	Increased availabili of high-value, safe, and nutritious food Increased commercialization avalue-addition More climate resiliagri-food sector
Results Area 3. Modernizing Institutions and Policies for Agriculture Transformation •Increasing investment in R&D at NARS Institutes (DLI8) •Establishment of partnerships with global agricultural research institutions, MoA agencies, and the private sector •Development of digital extension with private sector •Policy and regulatory framework for VC promotional bodies •Establishment of and support to VC promotional bodies •Strengthening of farmers' organizations •Strengthening of MoA ICT infrastructure and systems •Training of staff in data collection and processing, market research and demand forecast	Partnerships with global agricultural research institutions established and operational Partnerships with MoA agencies and the private sector established and operational Digital extension operational with the participation of private sector providers VC promotional bodies established and operational (DLI9) Farmers' organizations able to participate in promotional bodies MoA ICT infrastructure and systems operational Staff trained in data collection and processing, market research and demand forecast	Improved research outcomes Improved VC coordination and promotion through VC promotional bodies Improved availability of agriculture data, market research and demand forecast (DLI10)		



A. PforR Program Scope

26. The proposed PforR is a subset of Government's program, the PoA of the NAP. Table 1 below shows the three Thematic Areas of the PoA and their respective programs and highlights the PoA programs included in the PforR under the corresponding RAs. PARTNER's RAs are well aligned with the PoA's Thematic Areas. PoA programs selected for inclusion in PARTNER are the most critical in ensuring that that NAP achieves its overall objectives. A few PoA programs (such as 8, 11, and 13) have not been included in PARTNER for one or several of the following reasons: (i) they do not contribute directly to PARTNER's objectives; (ii) their impacts cannot be easily measured and attributed to PARTNER; (iii) they are not in line with recommendations of recent analytical studies; (iv) they are heavily influenced by other externalities; or (v) they are supported by other fully funded programs. The programs on "Promotion of Industrial and Export-oriented Crops Clusters & Collaboration with Private sector" and "Appropriate Scale Mechanization & Use of Clean Energy in Farm" under the thematic area II are excluded because there are fully funded, either by GoB or other development partner programs. The program on "Increasing Real Income of Farmers, Labors and Women Farmers for their Empowerment" is excluded as it aims at ensuring remunerative prices, which is heavily influenced by other externalities. The program on "Intellectual Property Rights (IPR) Sovereignty on Natural Resources and International Partnership" under thematic area III is excluded because setting up an IPR authority for agriculture will require longer legislative and administrative actions, which are beyond the scope of PARTNER. The MoA's ongoing input subsidy program, which accounts for a major share of the MoA's annual budget is also excluded from the PforR. PARTNER's geographic scope is nationwide.

Table 1: Alignment between Thematic Areas of the PoA of the NAP and PARTNER's RAs

	NAP PoA (2021 – 2025)		PART	NER Program (2023-28)
Development objective	To achieve safe, profitable agriculture and sustainable food and nutrition security		To promote diversification, food safety, entrepreneurship, and climate resilience in the agri- food systems of Bangladesh	
Thematic Area	Programs	RA	Activities	
I. Sustainable Food and Nutrition Security	Crop Diversifications and sustainable production of safe and nutritious food Strengthening Specialized Agriculture, Protected Cultivation and Production Systems in Special Geographical Areas Efficient and Economic Extension Services for Fast and Effective Transfer of Technology Enhancing Availability of Quality Inputs including Credit, Storage and Marketing S. CSA	I. Promoting Sustainable and Nutritious Food Production	1. 2. 3.	Development, rollout, and adoption of GAP standards in fruit and vegetable production Development and adoption of High Yielding Rice Varieties Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops Adoption of efficient irrigation technologies by
II. Increasing Income and Livelihood	6. Sustainability of production systems and management of natural resources 7. Post-Harvest Management: agro-processing and development of safe & quality VC 8. Promotion of Industrial & Export-oriented Crops Clusters & Collaboration with Private	II. Increasing Entrepreneurship and Access to Services along the VCs	5. 6.	Expansion of digital agricultural service provision through KSC Promotion of the accreditation of seed
Opportunities for Farmers	9. Appropriate Scale Mechanization (ASM) & Use of Clean Energy in Farm 10. Attracting, Skilling and Retaining Youth for		7.	certification and food safety testing processes Promotion of agri-food entrepreneurship for youth and women

²⁴ There are other fully funded programs that cover proposed export crops of jute, sugarcane, and cotton.

	Innovation-based development in Agriculture 11. Increasing Real Income of Farmers, Labors and women farmers for their empowerment ²⁵			
III. Modernization of Agricultural Research, Education & Extension	12. Quality investment in Agricultural Research and Extension Services for development 13. Intellectual Property Rights Sovereignty on Natural Resources and International Partnership	III. Modernizing Institutions and Policies for Agriculture Transformation	9. 10.	R&D activities for new technologies and innovations increased along with an operational evaluation system for NARS institutes Establishment and operationalization of VC promotional bodies for select commodities Improvement of quality information system (agricultural statistics and market research services incl. foreign markets)

27. **IDA** and **IFAD**'s contributions to the cost of PARTNER will be 37.2 percent and 3.2 percent, respectively. The PoA of the NAP was developed for an initial five-year period from 2021 to 2025 while the NAP, like previous agricultural policies, provides policy orientations for ten years, from 2018 to 2028. PARTNER will be implemented from 2023 to 2028, with a total budget of US\$1.343 billion. IDA and IFAD will contribute with US\$500 million and US\$43 million, respectively, while GoB's contribution will be the remaining US\$800 million. This contribution comes from the available budget of the MoA's ongoing and approved programs that are aligned with PARTNER's RAs (US\$625 million) and from an incremental contribution of US\$175 million. Table 2 below details PARTNER's financing.

Table 2: Summary of PARTNER's Financing Plan

Source	Amount (Million US\$)	Share of Total Financing (%)	
1. Government of Bangladesh	800	59.6	
1.1. Available budget of			
government's ongoing and	625	46.6	
approved programs.			
1.2. Incremental budget	175	13.0	
2. Development Partners	543	40.4	
2.1. IDA	500	37.2	
2.2. IFAD	43	3.2	
Total	1343	100	

Results Areas and Disbursement Linked Indicators (DLI):26

- 28. To achieve its development objective, PARTNER will focus on the following three RAs that are aligned with the PoA's Thematic Areas: (i) Promoting Sustainable and Nutritious Food Production; (ii) Increasing Entrepreneurship and Access to Services along the VCs; and (iii) Modernizing Institutions and Policies for Agriculture Transformation. These RAs have strong synergies and are mutually supportive.
- 29. **RA 1: Promoting Sustainable and Nutritious Food Production**. The proposed program aims at increasing productivity of all key crops such as cereals, pulses, fruits and vegetables, and spices, promoting agricultural diversification, enhancing on farm food safety, and building climate resilience in the sector.

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²⁵ Proposed measures for ensuring remunerative prices to farmers have larger macroeconomic impacts beyond this operation.

²⁶ For detailed discussion on DLIs, please see accompanying Technical Assessment



- 30. To achieve RA 1, the operation will promote productivity gains in rice to ensure self-sufficiency while increasing land availability seasonally or permanently for other crops with a high domestic and international market potential. The operation will support a more efficient use of inputs and address food safety concerns through the promotion of GAP. Crop diversification and a more balanced and efficient use of inputs (fertilizer, pesticides, water) is expected to enhance climate resilience and mitigation.²⁷ The following activities are envisioned to achieve RA1:
 - a. Development and adoption of GAP standards and protocols: Farmers overuse fertilizers, pesticides, water, and other inputs, which result in the inefficient use of limited resources, contribute to land degradation, increase GHG emissions and reduce export opportunities. In December 2020, the MoA issued the "Bangladesh Good Agricultural Practices Policy 2020", which will address these challenges by introducing practices and technologies to improve input use, enhance productivity, and improve environment and climate resilience. PARTNER will contribute to implement the policy, which will entail the development of crop-specific protocols as well as training for the certification of MoA agencies' staff, agricultural input dealers, and farmers (through Farmers Field Schools). There will be dedicated support for female farmers. A consumer awareness campaign will be launched. Incentives will be identified for farmers to adopt GAP through a gradual process: from simpler to more complex practices, such as water and pesticide use. Support will also include mechanisms to improve farmers' aggregation, access to markets, and linkages with off-takers through productive partnerships to maximize the value of adopting GAP standards.
 - b. Increased rice productivity: Rice productivity growth has slowed down in the last decade. Sustainable rice productivity growth to maintain rice food security requires closing current substantial yield gaps, particularly during the Aman and Aus seasons, and reducing production costs and GHG emissions. The operation will support the generation of stress-tolerant and nutrient-dense rice varieties and the development of climate-smart production packages, including precision agriculture. PARTNER will support the dissemination of these technologies, as well as that of HYV seed varieties and technologies recently developed by BRRI. By scaling up farmer-based seed multiplication networks, this operation will contribute to increasing the production and marketing of stress-tolerant and nutrient dense HYV rice. Increasing rice productivity is expected to allow the release of some land (Boro season) for crop diversification.
 - c. Crop diversification: Past improvements in food production have not been translated into adequate nutritional outcomes as food consumption patterns remain poorly diversified (64 percent of the dietary energy supply came from cereals in 2016-17). However, because of increased urbanization and expected income growth, the demand for fruits, vegetables, and animal products is expected to increase by more than 50 percent by 2030. The GoB introduced crop diversification as a key component of the NAP not only to address nutritional and farmers' income issues, but also to increase the sector's resilience to climate change and other shocks. The operation will support crop diversification through the strengthening of a sound policy and the preparation and adoption of an action plan (by BARI in collaboration with DAE, BARC, and BADC) to accelerate seed breeding, multiplication, production, and distribution including (i) an assessment of existing barriers for private sector participation, (ii) strategies to facilitate private investments in R&D, seed markets, and agrilogistics, and (iii) a monitoring and evaluation system for the adoption of new non-rice HYV

²⁷ See separate Annex for elaboration of adaptation and mitigation climate benefits.



seeds/technologies. Based on the policy and action plan, BARI will develop stress-tolerant and nutrient-dense varieties of non-rice cereals, pulses, oilseeds, spices, and horticulture crops. These, and other recently released seeds, saplings, and propagative materials, will be produced in farmers-based multiplication and marketing networks. Farmers, extension staff, and other stakeholders will be trained on the new stress-tolerant and nutrient-dense seeds and production packages through technology demonstrations and the establishment of crop-specific Famers Field Schools and Technology Villages at the Upazila level. Support will also include mechanisms to improve farmers' aggregation, access to markets, and linkages with off-takers through productive partnerships to incentivize crop diversification.

d. Increased water use efficiency: Ground water storage is declining. Some Boro rice areas are already facing water shortages. In the coming decades, Bangladesh is likely to be adversely affected by sea level rise, saltwater intrusion, rainfall variability, and an increase of average temperatures. Current irrigation practices and high energy subsidies to irrigate cropland have led to inefficient use of water. Small and fragmented landholdings reduce this efficiency even further. In fact, water use efficiency in Bangladesh is one of the lowest in South Asia (MoA estimates that only 3 percent of total irrigated land can be considered efficient in terms of water use). Technologies to increase water use efficiency in agriculture are available and have already been introduced by BADC and BMDA. The operation will support the strengthening of a policy and regulatory framework on agriculture water use efficiency through a participatory process (including equipment providers, users, MoA agencies, Water Development Board) and based on relevant international experience. This will include an analysis of the phasing out of electricity and diesel subsidies and ways to incentivize the adoption of efficient irrigation technologies. A strategic plan for scaling up efficient irrigation technology use will be developed, identifying applicable technologies to specific crops and regions. Field level training and demonstrations on the use of efficient irrigation technologies in selected Upazilas will be conducted. Farmers Field Schools will be established to train farmers on pre-paid water meters, alternate wetting and drying (AWD), sprinklers, and micro or drip irrigation techniques. Extension staff will be trained to support farmers' behavioral change with respect to water use.

31. There are four DLIs under this RA:

- a. DLI#1 Development, rollout, and adoption of GAP standards in fruit and vegetable production (US\$60 million) will track (i) completion of Bangladesh GAP standards, addressing the needs of farmers and consumers, and covering food safety, product quality, environmental management and climate resilience, and workers' health safety and welfare; (ii) the development of specific GAP protocols (including IPM) for 5 fruits and 10 vegetables, in consultation with VC participants; (iii) training of farmers on GAP practices, and training of staff responsible for GAP certification; and (iv) the number of hectares planted to selected fruits and vegetables that have been certified as having adopted GAP standards and specific protocols. By the end of the Program, a total of 300,000 hectares of fruits and vegetables will have been certified as having adopted GAP standards/protocols. The third-party independent verification agency (IVA) will verify whether farmers have been certified for adoption of GAP standards/protocols through on-site review in the Upazilas where DAE reported adoption under the PforR.
- b. **DLI#2 Development and adoption of High Yielding Rice Varieties (US\$55 million)** will monitor (i) the development of new BRRI varieties that are stress tolerant, climate resilient, low-carbon, nutrient-dense, bio-fortified, and premium quality; (ii) production and marketing of recently released HYV



seeds through the establishment and operation of a farmers-based seed multiplication network; and (iii) the adoption of new rice HYVs (including those developed over the past 5 years) over the three harvesting seasons. Extension will promote farmer appropriate technology packages customized to the HYV (including fertilizer and water use recommendations) to ensure optimal results. By the end of the Program, a total of 200,000 hectares will have adopted rice HYVs. BRRI will track the adoption of improved rice varieties by farmers and generate reports on the amount of land that has come under these new varieties. The third-party IVA will verify the adoption of new HYV rice technologies by farmers through on-site review in the Upazilas where BRRI reported adoption under the PforR.

- c. **DLI#3 Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops (US\$65 million)** will monitor (i) the development and on-farm trials/demonstrations of improved HYV (climate-smart, low-carbon, stress-tolerant, nutrient-dense) and other technologies for non-rice cereals, pulses, oilseeds, spices, and horticulture crops; (ii) production and marketing of seed/saplings/propagative materials through the establishment and operation of farmers-based multiplication networks; and (iii) the number of new hectares (from the Boro season) planted to non-rice crops. By the end of the Program, 200,000 hectares will have been converted to non-rice crop production. BARI will track the adoption of the improved technologies by farmers and generate reports on the amount of land that has come under the new crops and technologies. The third-party IVA will verify the adoption of new crops and new technologies by farmers through on-site review in the Upazilas where BARI reported adoption under the PforR.
- d. DLI#4 Adoption of improved and efficient irrigation technologies by farmers (US\$60 million) will track (i) the development of a policy/regulatory framework and a strategic plan that, in consultation with the private sector (equipment providers), will identify constraints and solutions (including incentives, training and support) for the adoption of efficient irrigation technologies (including partnerships, service delivery models, and applicable technologies to specific crops/regions). The strategic plan will define the scaling up of efficient irrigation technologies across the country; and (ii) adoption of improved and efficient irrigation technologies (AWD, buried pipes combined with AWD, energy-efficient sprinkler, and drip irrigation) by farmers. By the end of the Program, 100,000 hectares will have adopted efficient irrigation technologies. BADC will track the adoption of the improved technologies by farmers and generate reports on the amount of land that has come under these new technologies. The third-party IVA will verify the adoption of new technologies by farmers through onsite review in the Upazilas where BADC reported adoption under the PforR.
- 32. RA 2: Increasing Entrepreneurship and Access to Services along the VCs. The proposed Program aims at making the provision of services and subsidies to farmers more efficient, helping with the reform of the food safety system by strengthening the national testing laboratories, and promoting access to better markets. This RA will support the PoA's programs 6, 8, and 9. PARTNER will also aim at improving working conditions of female farmers and promoting an active participation of the women and youth as agents of change by providing them with appropriate skills and access to services to enable their retention on the job market or creation of their own higher value jobs along the agri-food VC. RA2 will be achieved through the following activities:
 - a. Expansion of digital agricultural services: The large number of farm families in Bangladesh (16.5 million) poses significant challenges for efficient extension service and public/private support delivery that are crucial to improve agricultural productivity and resource use efficiency. For instance, only around 5 percent of farmers are visited annually by GoB extension agents. A vast majority lacks access





to high quality inputs and financial services. In addition, incentives to farmers are not being delivered in the most efficient way, as input subsidies are tagged (urea for rice production, mainly) and provided through dealers at a government-specified price. Lastly, the MoA lacks farmers and service-providers databases. DAE is piloting the use of the KSC in nine districts, but the card needs to include additional features and a mobile application needs to be developed. Under this Program a policy and regulatory framework for the provision of digital services and incentives to farmers will be developed. Policy work will include a scoping study on existing digital agriculture platforms in the country, data governance, an assessment of the supply and demand incentive framework needed for the adoption of digital technologies, and a feasibility study on how to make the digital platform usable with feature phones in addition to smart phones. A review of relevant international experience (e.g., India, Kenya, Uganda, China) will inform the preparation of the policy and regulatory framework. The Program will support the comprehensive reform of MoA's extension services, which will be linked to the "Growth Centers" that are being established at the Upazila level, aiming at reaching farmers through the KSC and various applications being developed by MoA agencies. Targeted measures will be taken to ensure women farmers can access KSCs. This will require the establishment and operationalization of a digital system, the development of a digital extension service delivery mechanism, and collaboration with commercial services (including financial). A "user experience approach" will be followed to enhance the suitability of digital solutions to smallholder farmers' needs. In addition, an E-voucher pilot will be conducted for the provision of efficient input subsidy delivery mechanism. Recommendations from the pilot will support the transition towards more efficient input markets (including input quality assurance) and inform the gradual repurposing of the current agricultural and fertilizer subsidy program for a more sustainable and diversified agricultural production system. Digital advisory services will include information about pest monitoring, agro-meteorological information, soil monitoring, and so on, all of which will increase farmers' adaptive capacity and resilience to climate shocks and allow a timely and balanced application of production inputs (seeds, fertilizer, water) with potential to reducing GHG emissions.

- b. Increased accreditation of seed certification and food safety testing processes: Food safety remains a significant concern for horticulture crops. The country lacks proper testing facilities, skilled scientists, and lab technicians. Some exporters and entrepreneurs are unaware of testing requirements and the MoA lacks a PPP framework to set up labs and facilitate testing certification. This operation will support the preparation of a policy and regulatory framework (lab maintenance, revenue generation, PPPs, and mechanisms to retain trained staff), in accordance with Bangladesh Accreditation Board's (BAB) guidelines, WTO-SPS treaty, and International Plant Protection Convention rules. An assessment of required accredited testing methods for exporting fresh fruits and vegetables will be conducted, including consultations with fruit and vegetable VC stakeholders (such as the Promotional Bodies that this operation will support) to identify export potential and testing requirements. Based on that demand assessment and on current lab/testing availability and readiness, labs will be established/refurbished/upgraded. Testing processes for agricultural commodities will be developed, and scientists, officers, and lab technicians will be trained. An awareness campaign on the importance of testing will be conducted, with clear goals, messages, and target audiences.
- c. Strengthened female and youth entrepreneurship skills: Current unemployment rates among women and educated youth in rural areas are particularly high. Participation of youth and women in commercial agriculture, agribusiness, and service provision to farmers is minimal. Some significant barriers to female and youth representation in agriculture include (i) social norms; (ii) limited business



skills; (iii) voice and agency; (iv) access to training, service, and technology; and (v) lack of start-up capital. This Program will support the preparation of a policy and of operational procedures on "Attracting and Skilling Youth and Women engaged in Agricultural VCs", in coordination with other relevant ministries (Youth and Sports, Education), agribusinesses, and financial institutions. This will include stocktaking of relevant sector and business requirements, youth's and women's interests in agriculture and agribusiness, underlying barriers (such as restrictive social norms that women face), and required skills by key VC stakeholders (including e-Commerce, digital centers, agricultural machinery service provision, and so on). Training modules for each sector and VC will be developed and applied, and are expected to consider opportunities for climate building and mitigation (e.g., energy-efficiency, renewable energy solutions). Partnerships with VC participants for on-the-job training (OJT) will be established. A PARTNER award mechanism at the district, regional, and national level will be designed to foster competition among trainees, providing entrepreneurship opportunities for outstanding youth and women. Partnerships with financial institutions will be established for the promotion of startup financial support. Access to incubation and acceleration assistance will be provided to startups with continuous advisory support/mentoring in terms of access to finance, overcoming regulatory constraints, accessing markets, linking with farmers, and so on. This will be done by DAM through partnerships with existing incubation centers and / or by supporting the launch of an incubation center dedicated to agribusiness.

33. There are three DLIs under this RA:

- a. **DLI#5 Expansion of digital agricultural service provision through KSC (US\$70 million)** will track (i) the development of a policy/regulatory framework (digital agriculture roadmap) by DAE for the KSC, including the preparation of an action plan to roll out extension services and other support through the Smart Card. The action plan will include a framework to pilot an E-voucher program in selected Upazilas to deliver input subsidies through the Smart Card; (ii) the number of Upazilas where digital extension services have become available; (iii) the number of Upazilas where the E-voucher pilot is implemented; and (iv) the number of farmers receiving services (extension, inputs, finance, and market access) through the KSC. The action plan will mainstream measures to promote gender equality and social inclusion (e.g., targeted outreach and communication, additional support to access the Smart Card). By the end of the Program, 5,000,000 farmers will have received digital services. DAE will track the recipients of digital services and generate reports on the number of farmers that received support through the KSC. The third-party IVA will verify the receipts of inputs and services support by farmers based on random sampling in the Upazilas among the farmer beneficiaries reported by DAE under the PforR.
- b. **DLI#6 Promotion of the accreditation of seed certification and food safety testing processes (US\$35 million)** will track (i) the number of accredited testing laboratories established and operational (e.g., plant pathology, entomology, and soil science) for promoting exports of selected commodities (i.e., potatoes, vegetables, and fruits), especially in export prone areas (based on the assessment of the lab testing and following national and international standards, the BAB will provide accreditation certificates); (ii) the number of trained scientists and lab technicians (public and private sector); and (iii) the number of testing methods and processes (plant protection, plant quarantine, plant pathology, entomology, soil science, pesticide residue, and toxicology) accredited for promoting food safety and exports of selected commodities. By the end of the Program, 10 laboratories will have been accredited for 20 testing processes. The third-party IVA will review and verify the achievement of the



- results reported by DAE by reviewing the pertaining policy changes, the labs' accreditation, and the accreditation of testing processes.
- c. **DLI#7 Promotion of agri-food entrepreneurship for youth and women (US\$43 million)** will track (i) the number of partnerships with businesses (commercial agriculture, agribusinesses, agricultural innovation companies, and agricultural services) for youth's and women's OJT; and (ii) the number of youth and women entrepreneurs trained in the above-mentioned areas (including OJT). By the end of the Program, 20,000 youth and women will have been trained. The third-party IVA will verify the achievements reported by DAM on random sampling basis.
- 34. **RA 3: Modernizing Institutions and Policies for Agriculture Transformation.** The proposed Program aims to reform the agricultural research, education, and extension system, improve VC coordination and promotion, and improve the efficiency, effectiveness, coordination, and information management of agricultural policies and programs. RA3 will be achieved through the following activities.
 - a. Increased R&D activities and more efficient extension services: Current expenditure in agricultural R&D stands at 0.4 percent of GDP. The PoA of the NAP aims at raising that figure to 1 percent. Empirical evidence has demonstrated the significant positive impact of investment in R&D on agricultural productivity, but NARS institutes lack capacity in infrastructure and human resources (HR). Furthermore, NARS institutes lack a well-functioning performance evaluation system that not only demonstrates clear progress in quality research, but also allows to prioritize and assign scarce resources to those specific R&D activities with the highest social and economic returns. This Program will conduct an evaluation for all NARS institutes and extension bodies following international standards and recommendations by the policy/framework for collaboration between NARS and private sector and international research institutes that has already been developed. The evaluation will inform the preparation of a strategy and an operational evaluation framework (including staff performance) for NARS institutes and MoA extension bodies. The strategy will prioritize investment in specific R&D areas, infrastructure, and HR capacity development (e.g., speed breeding, precision agriculture, adaptation to climate change, and so on) and identify mechanisms to increase the efficiency of extension services delivery. Partnerships, such as memoranda of understanding (MoU), with global agricultural research institutions (universities, labs, international institutions, public agencies, private organizations) will be established for collaborative research. Partnerships will also be established with MoA agencies and the private sector on the use of research outcomes. Digital extension approaches will be adopted with the participation of private sector providers.
 - b. Establishment of VC promotional bodies: Several factors constrain VC integration and competitiveness, including limited participation of VC stakeholders in policy formulation, limited public-private dialogue for the development of the VCs, lack of coordination among VC participants for the expansion of VCs, and limited R&D by the private sector. VC promotional bodies are state-recognized public-private platforms that bring together participants from all stages of the VC of a specific agricultural commodity. They work on expanding commodity markets through advertising campaigns, market research, new product development, quality standard setting, and consumer awareness. This operation will prepare a policy and regulatory framework for the creation of VC promotional bodies. This framework will be adopted by the MoA and prepared in a participatory way (MoA and related ministries, MoA agencies, financial sector, regulatory bodies, agribusinesses, logistics operators, traders, farmers' organizations representatives, consumer organizations representatives, academia), with an emphasis on the sustainability of these promotional bodies after



Program completion. These promotional bodies will be VC specific and will prepare strategic action plans to address constraints and increase efficiency and competitiveness of their respective VC. Where required, farmers organizations will be strengthened. A Technical Steering Committee will be established under DAM to provide support to VC promotional bodies such as training, know-how, research, branding, promotional activities in domestic and international markets, institutional strengthening, policy design, and so on.

c. Improved agricultural information system: The agricultural sector lacks quality statistical data, market information, and sector analysis, all of which are crucial for evidence-based policy making. This operation will strengthen ICT infrastructure and systems and HR capacity in data collection, entry, processing, and analysis. This will require the preparation of an action plan and framework for quality information systems with the participation of the ICT Division of MoA, Bangladesh Bureau of Statistics, and other relevant stakeholders. Open data best practices will be followed, with assessments of data and database needs for the various users (agricultural statistics, market research, financial and eextension services, sectoral analysis, and so on) and data availability, as well as introduction of open data standards and benefits for external data providers and users, identification of appropriate data collection and generation sources per data needs (e.g., field survey, satellite imagery, weather observation data, financial transactions, and so on), and establishment of streamlined processes for data generation. Staff at the local, regional, and national level will be trained in data collection and processing (historical data, farm data, satellite imagery, and so on). ICT infrastructure will be strengthened as required. Training of staff on market research and demand forecast will be conducted through data modeling and machine learning. An annual agricultural sector performance report will be prepared, following the objectives and targets set by the PoA of the NAP.

35. There are three DLIs under this RA:

- a. DLI#8 Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension services (US\$100 million) will track (i) increased budget for agriculture research activities, including HR capacity development (in areas such as speed breeding, precision agriculture, efficient input use, adaptation to climate change and climate mitigation, and so on), and infrastructure such as laboratory equipment, a vertical farming facility, and seed breeding and soil testing facilities; and (ii) the number of MoUs established with global agricultural research institutions, labs, universities, public agencies, and private organizations for collaborative research. By the end of the Program, the budget for agriculture research will have increased by 10 percent every year and at least 30 MoUs will have been established. The third-party IVA will review and verify the achievement of the results reported by BARC accordingly.
- b. DLI#9 Establishment and operationalization of VC promotional bodies for select commodities (US\$30 million) will monitor (i) the development and adoption by MoA of a policy and regulatory framework (including an operation manual) for private sector-led VC promotional bodies; and (ii) the establishment and operation of VC promotional bodies for (but not limited to) mango, jackfruit, tomato, potato, and fine rice. Short- and long-term strategic plans of action will be prepared for each VC, including the identification of mechanisms for the sustainability of the VC promotional body. In addition, annual VC specific reports will be prepared, covering VC performance and support provided by the Technical Steering Committee, which will be created under DAM. By the end of the Program, five VC specific promotional bodies will be operational. The third-party IVA will verify the development of the necessary policy framework and the establishment and operating procedures of the VC

promotional bodies by reviewing relevant documents.

c. DLI#10 Improvement of quality information system (agricultural statistics and market research services incl. foreign markets) (US\$25 million) will monitor (i) the number of Upazilas with staff's capacity developed for quality data collection (GEMS training, tablet distribution, and so on); special attention will be paid to the harmonization of MoA's agricultural information with that of the Bangladesh Bureau of Statistics; and (ii) the preparation of quarterly agricultural policy notes, including domestic demand assessment and forecasts for major cereal crops and vegetables by a research market team that will be established under DAM. The third-party IVA will verify the facilities/systems/quarterly agricultural policy notes by reviewing documents and outputs from the activities completed each year.

B. Program Development Objective(s) (PDO) and PDO Level Results Indicators

- 36. The Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and climate resilience in the agri-food systems of Bangladesh.
- 37. The Program's PDO will be assessed by the following indicators:
 - i. Increased area under non-rice cereals, pulses, oilseeds, and horticulture crops (hectare) (to capture increased diversification).
 - ii. Increased area under fruits and vegetables with GAP certification (hectare) (to capture food safety)
 - iii. Women and youth with entrepreneurship training who are employed or self-employed (number) (to capture entrepreneurship).
 - iv. Increased area under resilience-building, efficient irrigation technologies (hectare) (to capture increased climate resilience).

C. Disbursement Linked Indicators and Verification Protocols

38. **Disbursement-Linked Indicators (DLIs).** The proposed Program will disburse against a set of agreed upon DLIs, in accordance with demonstrated evidence of achieving a selective set of strategic and monitorable targets (for a detailed discussion on each DLI, please see technical notes in Annex 2). The following indicative DLIs have been identified, discussed and preliminarily agreed with the Client during preparation taking into account the following criteria: (i) a realistic balance between output and outcome indicators; (ii) a focus on highly strategic program interventions whose effective implementation is key to achieving the Program development objective, as well as NAP goal and objectives; and (iii) realism in terms of implementation and scalability to prevent holding disbursements unnecessarily at critical stages of implementation. A notional allocation for each DLI and proposed lead implementation agency (IA) as well as other contributing IAs according to the provisions of the PoA are included in the Draft DLI Table 3 below.

Table 3. PARTNER DLIs, Allocated Budget, and Lead IAs

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RA	DLI	Scalability	Target ²⁸	Proposed	Proposed	Contributing				
				Allocation	Lead IA	IAs				
				(\$million)						

²⁸ Final targets to be agreed at appraisal.

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RA I. Promoting Sustainable and Nutritious Food	DLI 1 – Development, rollout, and adoption of GAP standards in fruit and vegetable production (hectare)	Y	300,000	60	DAE	BADC, BARC BARI, DAM
Production	DLI 2 – Development and adoption of High Yielding Rice Varieties (hectare)	Υ	200,000	55	BRRI	DAE, BADC, BARC
	DLI 3 – Crop diversification towards non- rice cereals, pulses, oilseeds, and horticulture crops (hectare)	Y	200,000	65	BARI	DAE, BADC, BARC
	DLI 4 – Adoption of improved and efficient irrigation technologies by farmers (hectare)	Υ	100,000	60	BADC	DAE, BMDA, BARI, BRRI
RA II : Increasing Entrepreneurship	DLI 5 – Expansion of digital agricultural service provision through KSC (number)	Υ	5,000,000	70	DAE	DAM, BADC, BARC
and Access to Services along the VCs	DLI 6 – Promotion of the accreditation of seed certification and food safety testing processes (number)	Y	20	35	DAE	DAM, BARI, BARC, BADC BRRI
	DLI 7 – Promotion of agri-food entrepreneurship for youth and women (number)	Y	20,000	43	DAM	DAE, BADC, BARC
RA III: Modernizing Institutions and Policies for Agriculture	DLI 8 – Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension services (percentage)	Y	161%	100	BARC	BADC, BARI, BRRI, DAE, DAM
Transformation	DLI 9 – Establishment and operationalization of VC promotional bodies for select commodities (number)	Y	5	30	DAM	DAE, BARC
	DLI 10 – Improvement of quality information system (agricultural statistics and market research services incl. foreign markets) (yes/no)	Y	Yes	25	DAE	DAM, BADC, BARC

39. The verification of achievement of the ten DLIs will be carried out by a third-party IVA based on agreed protocols. DAE will prepare consolidated reports on the achievement of results using monitoring and evaluation (M&E) data collected by the IAs. All M&E data collected by the IAs will be uploaded into the management information system (MIS), which will be updated regularly. The third-party IVA will use the MIS data and undertake necessary protocols to verify the reported results (see Annex 2 for disbursement arrangements and verification protocols).

PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

40. The Program will use the government system for implementation, oversight, financial management (FM), procurement, safeguards, M&E, and reporting arrangements. The Program Steering Committee (PSC), the coordination units (i.e., Program Coordination Unit – PCU and Agency Program Coordination Units – APCU) and DLI Technical Teams (DTT) involved in the implementation and monitoring of PARTNER will be composed almost exclusively of existing staff of the seven IAs (i.e., BADC, BARC, BARI, BMDA, BRRI, DAE, and DAM) who will be asked to contribute to the Program in addition to their current responsibilities in their respective



agencies. Figure 3 below illustrates the institutional framework of PARTNER.

41. A PSC, headed by the Secretary of MoA, composed of Heads of the agencies (Director General, Executive Chairman and Chairman, as appropriate), will provide overall strategic guidance, approve annual budget and activity plans, monitor overall implementation progress, facilitate inter-agency coordination required for smooth program implementation, and resolve any outstanding issues requiring higher level decisions.

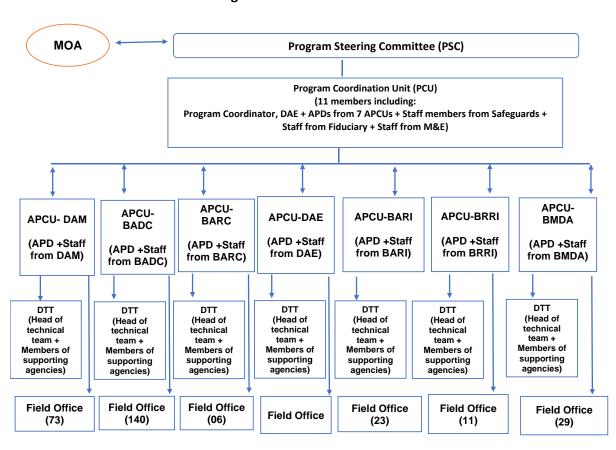


Figure 3. Institutional Framework

- 42. The PCU hosted at DAE will be responsible for overseeing the implementation of program activities, carry out program management functions, facilitate coordination among IAs, and liaise with the World Bank on all program implementation related aspects. Each of the seven IAs will be responsible for implementing activities for specific DLIs allocated to them. The PCU will be led by a Program Coordinator and will comprise seven Agency Program Directors (APD) from each of the APCUs, as well as other relevant PCU staff. These would include, but not be limited to, staff in charge of Safeguards, Fiduciary and M&E, who would provide capacity building and cross-functional technical support to the APCUs.
- 43. A total of seven APCUs will be established in each of the seven agencies involved in PARTNER. Each APCU will include an APD and relevant staff members of two categories: (i) those contributing towards DLIs allocated to the agency; and (ii) staff supporting other IAs in completing their respective DLIs. The objective of APCUs is to monitor the coordination for completion of their allocated DLIs, overseeing the functions of the DTTs, and facilitate support to other IAs where they are acting as supporting IAs.





- 44. A DTT will be established for each DLI housed at the implementation agency to which the DLI is allocated. The DTT will be a cross-implementation team that will include members from the implementation agency leading on the DLI, as well as from supporting IAs. The DTT will be headed by a DLI Technical Head from the lead implementation agency. The DTT will be responsible for carrying out activities for completion of allocated DLIs, monitor the activities to achieve the respective DLI, and will report to the APCU of the lead IAs on their progress. For instance, the DTT established for completion of DLI1 will (i) comprise a Technical Head from DAE which is the implementation agency responsible for DLI1 and other team members from supporting agencies who are also members of the respective APCUs; and (ii) report to the APCU established at DAE.
- 45. DAE is the largest agricultural and technology extension service provider in Bangladesh. The Field Service wing of DAE is in charge of supervising field administration and providing agricultural extension services to the farmers. DAE's national and regional leadership is experienced in implementing government and donorfunded projects in coordination with key agencies and stakeholders. The organizational structure of DAE is decentralized with roles and responsibilities clearly defined for institutions at division, district, Upazila, and block levels. The field staff from local/ regional offices of DAE pay scheduled visits to the field to monitor activities. Considering DAE's experience and capacity in coordinating work across agencies to deliver projects, it has been selected to host the PCU to oversee program coordination. In addition, as a result of its extension service delivery capacity and vast field presence, DAE will be responsible for delivering four DLIs, namely: (i) DLI1: Development, rollout, and adoption of GAP standards in fruit and vegetable production; (ii) DLI5: Expansion of digital agricultural service provision through KSC; (iii) DLI6: Promotion of the accreditation of seed certification and food safety testing processes; and (iv) DLI10: Improvement of quality information system (agricultural statistics and market research services incl. foreign markets).
- 46. DAM is responsible for agricultural marketing systems and agribusiness development in Bangladesh. It has adequate experience in conducting activities such as (i) disseminating and managing agricultural marketing information; (ii) taking effective steps in developing agricultural VCs and associated products; (iii) creating market linkages for farmers and buyers; and (iv) providing technical support for adoption of modern marketing practices. The organization follows a decentralized structure with roles and responsibilities clearly defined at division, district, and Upazila level. DAM has implemented several large-scale projects in the past. Considering its capacity and field presence, the APCU of DAM will be responsible for delivering the following DLIs: (i) DLI7: Promotion of agri-food entrepreneurship for youth and women; and (ii) DLI9: Establishment and operationalization of VC promotional bodies for select commodities.
- 47. BARI is the largest multi-crop research institute in Bangladesh. It conducts research on developing high yielding varieties of non-rice cereals, pulses, oilseeds, vegetables, tubers, fruits, spices, flowers, and so on. Since inception, BARI has been successfully contributing to national agricultural production by developing affordable technologies that are suitable for the country's agro-climatic conditions. BARI has developed a total of 1,178 technologies so far, out of which 602 are improved crop varieties. BARI has an adequately qualified workforce that can undertake the implementation of PARTNER. BARI's Planning and Evaluation Division will be responsible for developing, implementing, and monitoring the DLI allocated to the institution. Considering its extensive research experience, the APCU of BARI will be responsible for delivering DLI3: Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops. Significant capacity building support will be provided to BARI to implement and monitor DLI3.
- 48. BRRI is involved in development of rice-based technologies for sustainable food security. BRRI has developed 108 high-yielding modern rice varieties so far (101 inbred and 7 hybrid). The Planning and Evaluation Division of BRRI is in charge of planning, monitoring, and evaluation of development projects. Any division or regional





- station of BRRI can implement projects and/or programs. BRRI has 19 research departments and a qualified workforce of 786 employees with 308 scientists/agricultural engineers/officers. About one-third of the scientists have higher training, including masters and doctorates. Therefore, the APCU of BRRI will be responsible for delivering DLI2: Development and adoption of high yielding rice varieties. Significant capacity building support will be provided to BRRI to implement and monitor DLI2.
- 49. BARC is the apex body of the National Agricultural Research System (NARS) in Bangladesh. It is responsible for strengthening the national agricultural research capability through planning, funding, coordination, and monitoring of research projects. BARC has been responsible for identifying deficiencies in research coverage, suggesting means of improvement, and arranging seminars, workshops, and international cooperation. As the apex body, it has been primarily coordinating the research activities of 14 NARS institutes to bring synergies and avoid duplication of research. BARC has prior experience in implementing projects including NATP-1 and NATP-2 currently funded by the World Bank and IFAD. Being an apex research body and having prior experience of implementing development projects, the APCU of BARC will be responsible for delivering DLI8: Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension systems. Significant capacity building support will be offered to BARC for implementation and monitoring of DLI8.
- 50. BADC is responsible for making suitable arrangements throughout Bangladesh for the production, procurement, transport, storage, and distribution of essential agricultural inputs. Agricultural inputs include seeds, fertilizers, and irrigation facilities. BADC has extensive experience in developing irrigation technology and improving irrigation efficiency by reducing waterlogging and expanding efficiently irrigated areas. The organization follows a decentralized structure with roles and responsibilities clearly defined at division, district, and Upazila level. Therefore, the APCU at BADC will be responsible for delivering DLI4: Adoption of improved and efficient irrigation technologies by farmers. Significant capacity building support will also be provided to BADC, notably to overcome its limited manpower at Upazila and block levels.
- 51. BMDA's operations and management are localized in the northwestern region in the country. Its main functions include: (i) ensuring development and proper utilization of surface and underground water resources for irrigation; (ii) maintaining environmental balance by following afforestation and conservation; and (iii) establishing irrigation facilities and ensuring supply of pure drinking water. BMDA has a decentralized organizational structure comprising of zonal offices at Upazilla level, regional offices at district level, and circle offices at the division level in the northwestern region of the country. BMDA has implemented 30 development projects in coordination with other governmental agencies and relevant stakeholders. The Planning Wing of BMDA will be responsible for supporting BADC in delivering DLI4: Adoption of improved and efficient irrigation technologies by farmers.

B. Results Monitoring and Evaluation

52. PARTNER will be the first PforR in the agriculture and food sector in Bangladesh. Implementing a new results-based approach requires significant support for M&E, including planning and execution. The M&E capacity will be strengthened during PforR implementation. M&E for PARTNER will be conducted by a multi-tier mechanism led by the PCU as follows. The PCU will be responsible for (i) coordinating M&E activities of IAs at the Program level; (ii) developing and implementing the Program level M&E plan; (iii) consolidating M&E information; (iv) monitoring, reporting, and evaluating Program results; (v) reviewing the M&E plan of each DLI prepared by lead agencies, controlling quality, and keeping consistency in M&E among activities; and (vi)



identifying any capacity and data gaps to implement M&E plans and developing an action plan together with lead agencies. Key results of the Program and progress towards results indicators, including DLIs, will be regularly measured and reported to the World Bank. The PCU will be aided by PARTNER-supported information systems.

- 53. The results indicators tracked in the Results Framework have been included to capture the progress made in terms of inputs, outputs, and outcomes towards the achievement of the Disbursement-Linked Results (DLR) and DLIs.
- 54. The lead agency for each indicator and each DLR/DLI will be responsible for M&E on Program activities and will report to the PCU. All participating agencies will prepare an M&E plan for their relevant result indicator(s) and DLR(s)/DLI(s) that will be used for monitoring progress against the given indicator within the agreed timeline. The M&E plan will also specify the unit of measurement, baseline values, targets, monitoring frequency, data sources, methodology for data collection, and responsibilities for data collection and reporting for each indicator. All participating agencies have planning units that are responsible for M&E. These planning units will be further staffed, trained, and equipped during PforR implementation. Should new data be required to be collected for the Program, participating agencies will develop a protocol for data collection. Based on the data, all IAs will prepare monthly, quarterly, and semi-annual Implementation Monitoring and Evaluation Reports and submit them to the PCU.

C. Disbursement Arrangements

- 55. PARTNER will use a full PfoR approach. The achievement of the DLIs will be used for disbursement. The list of DLIs and DLRs and the proposed annual financial allocations across DLIs/DLRs are presented in Annex 2 and Table 3 above. There is a total of 24 DLRs spread over five years. Most DLIs include policy and regulatory reforms that will help achieve results.
- 56. IFAD resources will provide additional resources for achieving Program results. These resources will be provided on a pro-rata basis across the Program. Their disbursement will follow the achievement and verification of the same targets for each DLR. Eight percent of each disbursement amount will be drawn down from IFAD resources until the cumulative amount disbursed from these resources reaches US\$43 million.
- 57. PARTNER disbursement will be contingent upon the Government furnishing satisfactory evidence to IDA that it has achieved the respective DLRS and that they have been verified by an IVA. Application of withdrawal from the World Bank and IFAD financing will be sent to IDA any time after the World Bank has notified the GOB in writing that it has accepted evidence of achievement of the DLRs. The World Bank will review each withdrawal application and advise IFAD to make the necessary payment, if any. The withdrawal amount against the DLRs achieved will not exceed the amount of the financing confirmed for the specific DLRS. All withdrawals from the credit account will be made into a consolidated fund account in Bangladesh taka maintained at the Bangladesh Bank
- 58. The PforR will provide an advance of up to US\$135 million equivalent (of which US\$125 million from IDA and US\$10 million from IFAD), which explains the relatively high level of expected disbursements in Year 1 of implementation compared to subsequent years. The advance will be adjusted against disbursements due when the DLRs are achieved or in the later years of the Program. If DLRs are not achieved, refund of the advance is required in accordance with the provisions of the financing agreement.



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- 59. Details of the agreed disbursement rules for each DLR are provided in Annex 2. Some DLRs are scalable, with funds being disbursed in proportion of achievement of the DLR. Some DLRs have a roll-over provision with specified deadlines. If the achievement outperforms the targets, the corresponding World Bank financing against given DLRs may be disbursed before the deadline of each DLR.
- 60. Verification protocols for each DLR are detailed in Annex 2. DLRs will be verified by an IVA commissioned by DAE and submitted to the World Bank as part of the supporting documentation to report achieved results. The World Bank will also review the evidence for all DLRs during implementation. While the primary objective of the verification exercise would be to determine if the DLRs have been met, the process would be designed to figure out why DLRs are not being met and thus provide valuable feedback for course-correction during Program implementation.

D. Capacity Building

61. Although the agencies implementing the PforR have previous experience in project implementation, they lack trained staff to deliver results-based programs. Hence, support will be provided to enhance not only their technical skills but also their coordination, collaboration, and monitoring capabilities. Planned capacity building support will include (i) developing an improved MIS using technologies such as the Geographic Information System and dashboard displays to track the DLI cycle and management processes (procurement, costs, and so on); (ii) training on monitoring participatory planning and implementation, as well as gender and socially inclusive processes; (iii) designing and implementing "performance incentives/rewards" to enhance active engagement, accountability, and coordination among stakeholders; (iv) organizing public-private sector dialogue to build awareness within the public sector about the concerns and constraints faced by the private sector; (v) strengthening M&E capacity to cater to the demands of a results-centered approach to agricultural development, including: (a) training for analytical skills and ICT, (b) developing or improving digital monitoring platforms, and (c) enhancing institutional arrangements such as forming an independent unit for M&E and securing adequate staffing and logistical support; (vi) training and equipping public and private extension agents at all levels on CSA, GAP, IPM and input use efficiency, with the training designed through a consultative process to ensure pertinence and ownership, and with particular attention paid to women's needs; (vii) training the public and private sector on seed quality and seed market surveillance; (viii) equipping laboratories, training staff, and providing other infrastructure for BARC, BRRI, and BARI to enhance research capability; and (viii) training DAM and BMDA and facilitating improvements in real-time data collection.

ASSESSMENT SUMMARY

A. Technical (including program economic evaluation)

Strategic relevance

62. **PARTNER will support the objectives of the NAP 2018 and its 2020 PoA.** NAP 2018 prioritizes diversification (while maintaining food security), commercialization, and mechanization in agriculture as specific goals to transform the agriculture sector towards a more productive, profitable, and sustainable agricultural system. In line with the GoB's strategic priorities for agriculture, PARTNER supports crop diversification and modernization, including CSA in a shift towards a more climate resilient and market-oriented food system. The Program will respond to Bangladesh's broader policy goals (as set in 8th FYP 2021-2025) and will contribute to crowding in the private sector along the agri-food VC.



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Technical soundness

- 63. PARTNER's overall framework rests on solid technical bases. The Program reflects the findings and recommendations of the analytical work and sectoral diagnostics carried out by the World Bank in recent years and builds on experience and lessons learned from on-going and past agricultural projects in Bangladesh (e.g., NATP-2, Integrated Agricultural Productivity Project (IAPP), Agriculture, Nutrition, and Gender Linkages Project (ANGeL) and the region supported by the World Bank and other partners. Overall, these assessments and experience highlight the importance of a sectoral transformation approach with a focus on productivity improvement, VC strengthening, and enhancing food safety, while ensuring climate resilience of the sector. Interventions under the proposed Program consist of scaling up activities familiar to the MoA and its agencies. The MoA and its agencies have acquired extensive experience in developing and implementing sectoral policies, strategies, and action plans, in working with key stakeholders, including farmers, agribusinesses, and in strengthening public institutions serving the agriculture sector.
- 64. The technical soundness of PARTNER has been assessed by RA against relevant experience and good practices. As extensively documented in the 2008 World Development Report,²⁹ investments in technology and extension, rural infrastructure, and human capital, coupled with policy and institutional changes, are the main sources of productivity growth. PARTNER will intervene in all these aspects while ensuring, through the promotion of CSA practices, that environmental costs are not only avoided but that the Program also contributes to climate change mitigation.
- 65. Regarding crop diversification, market and agronomic conditions are favorable but some constraints persist. The Program will address such constraints by increasing the availability of high-quality fruit and vegetable seeds, promoting GAP/IPM practices, establishing Technology Villages in all Upazilas, promoting the adoption of food safety quality standards, increasing farmers' access to finance, strengthening institutions and operations of commodity-based producers' organizations, and supporting the establishment and operation of VC specific promotional bodies. In addition to increased productivity and diversification, PARTNER seeks to increase entrepreneurship of women and youth and access to services along the VC. Women and youth will be trained in high-value agriculture, agribusiness and technology services, and women self-help groups will be promoted and strengthened to increase their access to training, services, credit, and markets. Both youth and women startups will be supported.
- 66. Lastly, by modernizing institutions and policies for agriculture transformation, with an emphasis on R&D, the Program will contribute not only to increased agricultural productivity but also to poverty reduction, as empirical evidence and research show.^{30,31} Furthermore, investments that are targeted at productivity-enhancing and emissions-reducing technologies have the greatest potential for reducing poverty, lowering the cost of healthy diets, and reducing the amount of land needed for agriculture.³²

Expenditure framework

67. PARTNER is backed by an adequate government expenditure framework and the size of the MoA's expenditures is well above the size of the PARTNER Program. In the last five fiscal years, the MoA was allocated BDT 831.3 billion, which is around 3 percent of the total national budget. Based on the medium-

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²⁹ https://openknowledge.worldbank.org/handle/10986/5990

³⁰ The World Bank. 2007. Agriculture for Development. World Development Report 2008.

³¹ Peter B.R. Hazell. 2008. An Assessment of the Impact of Agricultural Research in South Asia since the Green Revolution. Science Council CGIAR

³²Madhur Gautam, et.al. 2022. Repurposing Agricultural Policies and Support. The World Bank / IFPRI.



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term budgetary framework and projection exercise, the MoA will be allocated BDT 954.0 billion in the upcoming five fiscal years when PARTNER is expected to be implemented. Looking into the seven IAs' expenditures, total allocation was BDT 256.1 billion in the last five years, while projections for the upcoming five years will amount to BDT 326.6 billion. The incremental expenditure of PARTNER (i.e., BDT 71.8 billion, which is equivalent to US\$718 million) is only 7.5 percent of the projected allocation of MoA and 22 percent of the projected allocation of the seven IAs. This indicates that there will be a consistent and sustainable flow of funds to the agencies to carry out the activities throughout the period of the PforR.

- 68. Considering the Program's intended results, the composition of the estimated expenditures is well justified. The expenditure boundaries include all expenditure inputs that the program needs to achieve intended results. The Program's estimated capital expenditures (i.e., goods and works) amount to US\$628.8 million, representing 46.8 percent of total expenditures, and operating expenditures amount to US\$714 million, representing 53.2 percent of total expenditures. According to the estimated expenditures by topline budget lines, machinery and equipment represent 15.4 percent, building other than dwelling represents 14.8 percent, training (local and foreign) represents 12.4 percent, professional services represent 9.8 percent, agriculture supplies represent 8.5 percent, and administrative expenses represent 5. percent, amongst others (For detailed breakdowns, please see table 3.2 in Annex III). Another important aspect is that all the expenditure lines of PARTNER lie within the current expenditure lines of the MoA. Thus, no expenditure line changes or additions will be required.
- 69. The flow of expenditures to the sector under the medium-term budgetary framework (MTBF) will continue even after the PARTNER Program, which will ensure the financial sustainability of the government program. Historically, the budget of the MoA has followed an upward trend. In FY 2009-10, the total budget was BDT 60 billion, which increased to BDT 137 billion in FY 2016-17 and BDT 242 billion in FY 2022-23. The budget for FY 2022-23 is four times greater compared to the budget for FY 2009-10. The total public expenditures for the agriculture sector are determined by the MTBF and are sourced from both development partners and the government's own resources. The investment for PARTNER is well embedded in the MTBF. Past trends suggests that successive MTBFs maintained priority in agricultural investments. Increasing the level of investment for the sector is well prioritized in the ongoing 8th FYP and the Perspective Plan of Bangladesh 2021-2041. Thus, the fiscal sustainability of the program will be maintained even after the closing of the PforR.

Economic rationale

70. Two methodologies were used to evaluate PARTNER's economic impact: (i) a social accounting matrix (SAM) simulation; and (ii) an *ex-ante* economic analysis. Both yielded positive results.

71. PARTNER's incremental investment will increase Bangladesh's GDP by 0.33 per cent. By injecting a lumpsum US\$718 million (i.e., BDT 71.8 billion)³³ into the exogenous investment accounts for the agricultural sector, the SAM multiplier model provides that the economy will be boosted by BDT 112 billion of additional GDP,³⁴ which is 0.33 per cent of the FY 2020-21 GDP while PARTNER's investment itself is 0.21 per cent of GDP. For this specific simulation, the GDP multiplier is 1.56, which implies that one million BDT of extra investment in the agricultural sector will lead to 1.56 million BDT of additional GDP. However, this GDP increase will not be

³³ For the SAM simulation exercise, only PARTNER incremental investment has been considered rather than the full program size, since government ongoing expenditures are already captured in the basic SAM framework.

³⁴ The additional GDP will be created by multiple rounds of feedback effects over several years, including five years of implementation.





- solely from the agriculture sector. Other sectors of the economy will also experience additional GDP, as the agriculture sector has strong forward and backward linkages. More specifically, the GDP of the agricultural sector will increase by 2.20 per cent, where PARTNER's investment itself is 1.75 percent of the 2020-21 agricultural GDP. Moreover, the GDP of the industry and services sectors will increase by 0.07 and 0.08 percent respectively. Among the expected additional GDP, 80.6 percent will be from the agricultural sector, 7.2 percent from the manufacturing sector and 12.2 percent from the services sector.
- 72. The Program is a net carbon sink compared to the without project scenario of -64,314,602 tCO2e emissions over 20 years, and about -3,215,730 tCO2e emissions per year. However, gross emissions are positive, and the Program would emit 137,344,329 tCO2e over 20 years. Improved water management in irrigated rice has the largest mitigating effect, with about -95.3 million tCO2 emissions followed by improving management of annual crops and horticulture produces (i.e., net carbon sink of -16.5 million tCO2e emissions compared to without project scenario) and by growing perennials (i.e., about -11.3 million tCO2e emissions). The large carbon sink for crop management is based on the assumptions that 50 percent of land under annual crops is enriched with manure leading to high carbon content. In contrast, conversion of land use from irrigated rice to annual crops and perennials – which disturbs the soil – leads to a net carbon source of 42.8 tCO2e emissions. Changes in aggregated fertilizer use leads to a net carbon source of 16 million tCO2e, as changes in synthetic fertilizer due to changes in land use from irrigated rice to crops and horticulture should lead to a net carbon sink of -5.5 million tCO2e emissions. However, compost/manure is expected to increase by 50 percent, which leads to a net carbon source of 20.3 tCO2e emissions. It should be considered that the positive effect of increasing soil carbon through manure application has already been considered through improved crop management. The use of certain pesticides is likely to increase, leading to a net carbon source of 1.1 tCO2 emissions. Energy use from VC activities has not been included in the analysis.
- 73. PARTNER yields an economic Internal Rate of Return (IRR) of 33 percent and an economic Net Present Value (NPV) of US\$1.902 billion (using a 15 percent discount rate). A 20-year cash flow model is used to assess exante efficiency of the Program's investment. Annual cash flows are estimated as the difference between withproject (W/P) and without-project (WO/P) net benefits. The analysis focuses on rice productivity increases and crop diversification, which benefit from the adoption of GAP and more efficient irrigation technologies, increased access to extension services and market information for better on-farm decision making, and increased investment on agricultural research for the development of new HYVs and production packages. It is assumed that PARTNER will increase productivity in 98,932 ha of Boro area, 296,796 ha of Aman area, and 98,932 ha of Aus area. In addition, PARTNER will contribute to converting 494,659 ha of Boro area into nonrice crops. Placing a monetary value on the potential GHG mitigation benefits in terms of reductions in GHG emissions, the EIRR increases by 14 percentage points compared to the base case. This assumes a shadow price of carbon of US\$43 per tCO₂eq for 2023, reaching US\$65 at the end of the 20-year period (low-price scenario). Under a high shadow price of carbon scenario, the EIRR reaches 62 percent. The Program is robust to sensitivity analysis. A 20 percent decline in the international price of rice and non-rice crops simultaneously taking place with a 20 percent increase in international fertilizer prices reduce the EIRR to 24 percent and the ENPV to US\$897 million. However, the Program is sensitive to technology adoption rates. Reducing the adoption rate to half the baseline rates (e.g., from 15 to 7.5 percent in Year 1, and 70 to 35 percent in Year 5) can significantly reduce the EIRR to 19 percent, which would still be 4 percentage points higher than the discount rate, and reduce the ENPV to US\$333 million. This dramatic reduction places considerable pressure on the Program to focus on technology adoption. Using a discount rate of 10 percent, to further underline the urgency of the proposed reforms, yields an ENPV of US\$3.280 billion. PARTNER could yield significant





additional returns, such as increased women and youth employment and increased farmer's income due to improved product quality that were not considered in the model.

B. Fiduciary

- 74. The FM Assessment for this Program has been prepared and built on country Public Expenditure and Financial Accountability (PEFA) assessments of 2016 and indicative score on Bangladesh PEFA of 2021, implementation updates on the Public Financial Management Reform Action Plan (2018-23), and other sector/institution specific Integrated Fiduciary System Assessments with due focus on Country Public Financial Management (PFM) System by the World Bank for the Strengthening Public Financial Management Program to Enable Service Delivery (SPFMS), PARTNER, Health Sector Program, Value-Added Tax modernization program, Fourth Primary Education Development Program (PEDP-4) as well as the assessments for Secondary Education Development Program (SEDP). It also synthesizes the outcome of consultations held with the key stakeholders on core fiduciary issues and challenges that might have a bearing on the Program. The FM systems were assessed to appraise the extent to which the planning, budgeting, accounting, controls, funds flow, financial reporting and auditing systems, and practices provide reasonable assurance on the appropriate use of funds and safeguarding of assets within the existing FM framework of the country.
- 75. Similarly, the procurement systems have been assessed to establish the extent to which the arrangements and practices provide a reasonable assurance in support of achievement of the Program's results. In addition, the assessment considered how the country's governance systems manage the risks of fraud and corruption and how such risks will be mitigated. The assessment also synthesized consultations held with key stakeholders on core fiduciary issues and challenges that might have a bearing on the PforR.
- 76. Anticorruption Guidelines (ACG): The GoB will use its own country systems to take appropriate measures to prevent fraud and corruption connected with the program and to remedy or prevent its recurrence. The program will handle fraud and corruption complaints by (i) receiving complaints from concerned citizens through complaint boxes at the MoA and through a web-based portal managed by the MOA; (ii) providing guidance to citizens or program officials on grievance handling through a dedicated helpline at the MoA; and (iii) using MoA's existing Grievance Redress and Complaints-Handling Guidelines, which have clear complaint handling procedures. Complaints can also be lodged through the Anti-Corruption Commission's hotline number and Anti-Corruption Commission's field level complaint box system. The World Bank's Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing, dated February 1, 2012, and revised on July 10, 2015 will apply to the PforR boundary. The GoB will use the World Bank's easily accessible procurement debarment list before awarding contracts and share with the World Bank information on allegations of fraud and corruption in the Program and how they are being addressed through annual reports.
- 77. The five-year program cost is estimated to be US\$1,343 million. The planned contribution from the IDA would be US\$500 million and that of IFAD would be US\$43 million for the PforR. Based on the initial findings of the Integrated Fiduciary Systems Assessment (IFSA), it is concluded that the Program Fiduciary Systems are adequate, given the successful implementation of the fiduciary action plan, as stated in the IFSA, to support the Government to implement the Program efficiently and would provide reasonable assurance that the financing proceeds will be used for intended purposes. However, there are several gaps and weaknesses in the existing country system and program implementation units that could potentially affect the achievement of overall Program objectives such as delays in preparing Program financial statements, capacity constraint in





auditing results based financing, delays in resolution of audit observations, delays in releasing annual budgets, lack of professional resources in FM, weak internal audit capacity, delay in procurement processes, inappropriate bidding practices undertaken by the bidders, time over-run and cost over-run during contract implementation, lack of strategic procurement planning, and so on.

78. Based on the assessment and due consultation with DAE, DAM, BARI, BRRI, BADC, BMDA, and other stakeholders, a Program Action Plan (PAP) focusing both on risk mitigation as well capacity building was agreed (see Annex 6).

C. Environmental and Social

- 79. The Program will support a part of the overall Government program (PoA-NAP). The Environmental and Social Systems Assessment (ESSA) provides a comprehensive review of relevant government systems and procedures for addressing environmental and social (E&S) issues associated with the Program. The ESSA describes the extent to which the Government's E&S policies, legislation, program procedures, and institutional systems are consistent with the six 'core principles' of the World Bank Guidance³⁵ on E&S management in PforR operations. The assessment recommends actions to address the gaps and to enhance performance during Program implementation.
- 80. The ESSA has identified potential risks and opportunities and assessed the compatibility of the Program with respect to the core principles. MoA has considerable experience in executing World Bank-financed projects, with demonstrated capacity in managing E&S risk for similar activities. The Program will exclude any activity that may have significant adverse E&S impacts and are sensitive, diverse, or unprecedented.
- 81. Overall E&S risks of the Program are assessed to be 'Moderate'. The Program activities have no significant and irreversible impacts on environment and the associated risk is rated as 'Moderate'. The construction of infrastructure would be limited to renovation, repair, and modernization of various facilities within the existing complexes housing the IAs, where limited number of labor force would be employed. As such, the risk would be minimal, as effects would be localized and could be mitigated in situ by the contractors employed. There would not be any land acquisition and involuntary resettlement. Social discrimination and SEA/SH risks are also low. Thus, the social risk is also rated as 'Moderate'. An E&S screening was carried out to identify E&S risks and impacts with respect to contextual, institutional, capacity, and reputational risks facing the Program.
- 82. The potential investments may include small- and medium-scale civil and construction works, use of digital technology, pest management using naturally tolerable pesticides/herbicides for HYV and other crops diversification, promoting improved and efficient irrigation facilities, establishment of "Technology Villages", testing laboratories, training, research, market linkage, youth engagement, and piloting motivational incentives. The anticipated E&S impacts are mostly localized and reversible and can be mitigated through proportionate management and mitigation measures. The Program Implementation Plan (PIP) will be developed at Program commencement and followed also for E&S risks management requirements and procedures (E&S Guidelines) and a subsequent E&S management framework (ESMF) including Environmental Code of Practice (ECoP) and social management procedures will be developed for the Program at the early stage of implementation. The PIP will be updated when the Program ESMF will be adapted.

³⁵ World Bank Guidance on Program for Results Financing Environmental and Social Systems Assessment (Annex-C)



- 83. The IAs manage E&S impacts following the national regulatory framework and policies in the regular operations, as well as in projects with finance from the Government's own resources. In case of international finance in their projects, they develop and implement project-specific E&S management plans (ESMPs) following the E&S compliance requirements of the international finance institutions to supplement the gaps of the national E&S management system (ESMS). The involvement of multiple IAs including research organizations with their low capacity to manage E&S risks is noted and would be addressed in the PAP.
- 84. Overall, the ESSA found that the country's E&S policies and legal framework applicable in agriculture sector are largely compatible with the E&S core principles for World Bank PforR finance. However, the ESSA recommends several measures under the Program to address institutional capacity constraints and gaps within the IAs across a range of the ESMS's limitations including policy principles and institutional setup. These measures are summarized as E&S actions incorporated in the PAP (see Annex 6). In addition, a more detailed description of the main E&S issues and recommended actions to strengthen E&S systems' performance for the Program are presented in Annex 5.

43. RISK

- 85. Macroeconomic risks (Substantial). Real GDP growth is expected to slow to 6.1 percent in FY23 as import suppression measures disrupt economic activity. Higher inflation will dampen private consumption growth following substantial energy price increases. Export growth is expected to slow, as economic conditions in key export markets deteriorate, while rolling blackouts, gas rationing, and rising input costs weigh on manufacturers. A gradual reduction in poverty is expected, declining from 10.4 percent in FY22 to 10.0 percent in FY23. Over the medium term, the balance of payments is projected to return to surplus as import growth moderates. Bangladesh's economy performed well during the COVID-19 pandemic compared to peer countries. Relatively low debt-to-GDP provided a fiscal buffer, and a stimulus program protected manufacturing capacity. A robust recovery continued in FY22 as movement restrictions were lifted. Rising commodity prices and a surge in imports in the second half of FY22 resulted in a substantial balance of payments deficit and accelerating inflation. A series of policy measures to suppress imports and preserve foreign exchange reserves is expected to dampen growth, including electricity cuts and reduced business hours. Addressing longstanding structural challenges would help sustain GDP growth over the medium term, including increasing domestic revenues, modernizing the tariff regime, resolving financial sector vulnerabilities, and improving the business climate.
- 86. Institutional Capacity for Implementation and Sustainability (Substantial). The substantial risk refers to the challenges in coordinating various line agencies under the MoA and their capacity to implement the respective programs and achieve intended results. Mitigation of the coordination challenge is achieved through the proposed institutional framework that combines a PCU housed at DAE which has experience in coordinating activities across agencies and APCUs in each of the seven IAs with clear responsibilities for each regarding their leadership over the delivery of specific DLIs and their need to facilitate inputs from contributing IAs. The institutional capacity assessment carried during Program preparation also identified associated capacity building needs for both the MoA and the seven IAs.
- 87. **Technical Design of Project or Program (Substantial)**. The project is designed to implement key elements of the GoB's strategy for agriculture development in Bangladesh. Thus, the design is not only comprehensive and supports the country's agricultural production system and its VCs, but it also fits the country's diversified and challenging context. However, PforRs are new to the client ministry. As a result, significant support has been



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provided to the MoA to improve its knowledge of this lending instrument and the technical capacity needs assessment carried out during Program preparation indicated the need to provide further technical assistance to MoA and the seven IAs during the first years of Program implementation to mitigate technical design risks linked to their adaption to a performance-based operation.

88. **Fiduciary (Substantial)**. According to the IFSA carried out for the Program, the overall residual fiduciary risk is determined to be 'substantial'. The FM and procurement risks identified include (i) lack of technical preparation (e.g., terms of reference, cost estimates, and so on) before the start of the procurement process; (ii) lack of an established procurement unit; (iii) lack of overall supervision and coordination; (iv) lack of capacity of decentralized IAs; (v) weak enforcement of procurement legislation and lack of oversight; (vi) weak system of registration and handling of complaints; (vii) some of the provisions of the country laws that are not consistent with basic public procurement principles (e.g. tenders invited and rejected based on percentage above or below the estimated cost, use of lottery); (viii) lack of proficiency in procurement management particularly in bid/ proposal evaluation; (ix) selecting contractors under undue political influences; and (x) limited experience of potential bidders and lack of awareness of how to access biding opportunities in PARTNER. Fiduciary actions have been included in the PAP to mitigate some of these risks.

ANNEX 1. RESULTS FRAMEWORK MATRIX

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal. **Please remove this note before finalizing the document.**

Results Framework

COUNTRY: Bangladesh

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Program Development Objective(s)

The Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and climate resilience in the agri-food systems of Bangladesh.

Program Development Objective Indicators by Objectives/Outcomes

Indicator Name	DLI	Baseline	End Target				
Increased Crop Diversification	Increased Crop Diversification						
Increased area under non-rice cereals, pulses, oilseeds, and horticulture crops (Hectare(Ha))	DLI 3	0.00	200,000.00				
Improved Food Safety							
Increased area under fruits and vegetables with GAP certification (Hectare(Ha))	DLI 1	0.00	300,000.00				
Increased Entrepreneurships							



DLI	Baseline	End Target
DLI 7	0.00	12,000.00
	0.00	60.00
DLI 4	0.00	100,000.00
	0.00	500.00
	0.00	500.00
	0.00	99,000.00
	DLI 7	DLI 7 0.00 0.00 DLI 4 0.00 0.00 0.00



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Intermediate Results Indicator by Results Areas

Indicator Name	DLI	Baseline	End Target
Promoting sustainable and nutritious food production			
GAP standards and protocols for fruits and vegetables developed and approved by MoA (Yes/No) $$		No	Yes
Farmers and certification staff trained in GAP certification (Number)		0.00	1,000,000.00
Share of which women (Percentage)		0.00	40.00
Increased area under high-yielding rice varieties (Hectare(Ha))	DLI 2	0.00	200,000.00
Stress-tolerant and nutrient-dense rice varieties generated (Number)		0.00	5.00
Certified rice seeds produced and marketed through the network (Tons/year) $ \label{eq:constraint} % \begin{subarray}{ll} \end{subarray} % \begin$		0.00	5,000.00
Stress-tolerant and nutrient-dense non-rice varieties generated (Number)		0.00	15.00
Certified non-rice seeds produced and marketed through the networks (Tons/year)		0.00	5,000.00
Farmers adopting improved agricultural technology (CRI, Number)		0.00	1,000,000.00
Farmers adopting improved agricultural technology - Female (CRI, Number)		0.00	300,000.00
Farmers adopting improved agricultural technology - male (CRI, Number)		0.00	700,000.00
Increasing Entrepreneurship and Access to Services along the val	lue-cha	ins	
Extension staff, who are trained in e-extension service delivery		0.00	1,500.00



Indicator Name	DLI	Baseline	End Target
and digital M&E tools (Number)			
Share of which women (Percentage)		0.00	30.00
Farmers received services through 'Krishak Smart Card' (Number)	DLI 5	0.00	5,000,000.00
Share of which women (Percentage)		0.00	40.00
E-voucher pilot for new input subsidy mechanism implemented in targeted Upazilas (Number)		0.00	15.00
Institutions provide financial services to at least 5,000 farmers (Number)		0.00	20.00
Laboratories receiving accreditation for a testing process (Number)		0.00	10.00
Testing processes for agricultural commodities accredited (Number)	DLI 6	0.00	10.00
MoUs with businesses and financial institutions for on-the-job training and financial support (Number)		0.00	35.00
Women and youth are trained under the project (Number)		0.00	20,000.00
Share of which women (Percentage)		0.00	60.00
Modernizing institutions and policies for agriculture transformation	tion		
Increase in R&D budget for NARS Institutes (Percentage)		0.00	61.00
MoUs and agreements on research collaboration with international research labs and the private sector (Number)	DLI 8	0.00	30.00
Promotional bodies for select commodities established and operational (Number)	DLI 9	0.00	5.00
Stakeholders' organizations of selected value chains strengthened with institutional capacity building support (Number)		0.00	500.00



Indicator Name	DLI	Baseline	End Target
Agricultural Information Systems improved (Yes/No)	DLI 10	No	Yes
Upazilas with staff equipped in high quality data collection capacity (Number)		0.00	495.00
Agricultural Annual Performance Report prepared and published (Text)		No	Yes
Quarterly Agricultural Policy Note prepared and published (Yes/No)		No	Yes
Share of beneficiaries who received support from the Program who are satisfied (Percentage)		0.00	80.00

Monitoring & Evaluation Plan: PDO Indicators									
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection				
Increased area under non-rice cereals, pulses, oilseeds, and horticulture crops	Measures diversification away from rice towards high-value crops by measuring the increased area under non-rice crops.	Annually	DAE, BARI, and DAM	Annual crop survey by M&E teams at DAE, BARI, and DAM	DAE, BARI, DAM				
Increased area under fruits and vegetables with GAP certification	Area under fruit and vegetable cultivation which receives GAP certification by DAE, based on annual audits (not cumulative)	Annually	DAE	Document review and Annual Survey	DAE				
Women and youth with entrepreneurship training who are employed or self-employed	Women and youth (<35 years) who participated in entrepreneurship training provided under the Program and receive salary/income from employment or self-employment (agricultural and non-agricultural).	Annually	DAM	Annual Survey and Document Review	DAM, DAE				
Share of which women									
Increased area under resilience-building, efficient irrigation technologies	Increased area under resilience-building efficient on-farm irrigation technologies, including sprinkler, drip irrigation and a combination of buried pipe & AWD,	Annual	BADC	Process monitoring and Annual survey	BADC				



	promoted by the Program.				
Increased area under sprinkler irrigation		Annual	BADC	Process monitoring and Annual survey	BADC
Increased area under drip irrigation		Annual	BADC	Process monitoring and Annual survey	BADC
Increased area under buried pipe and AWD		Annual	BADC	Process monitoring and Annual survey	BADC

	Monitoring & Evaluati	on Plan: Inter	mediate Results	Indicators	
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
GAP standards and protocols for fruits and vegetables developed and approved by MoA	Tracks the approval of GAP standards and protocols developed under the Program and approved by BARC (DLI1)	Annual	BARC	Document Review	BARC
Farmers and certification staff trained in GAP certification	Farmers who received training on GAP certification by MoA (DLI1)	Annual	DAE	Process monitoring by DAE	DAE
Share of which women		Annual	DAE	Process Monitoring	DAE
Increased area under high-yielding rice varieties	Area under high-yielding rice varieties which were developed by NARS and will be rolled out under the Program. The indicator also monitors varieties from BRRI100+ and up, which are already developed but have not yet been adopted by farmers (DLI2)	Annual	BRRI	Sample Survey	BRRI
Stress-tolerant and nutrient-dense rice varieties generated	New rice varieties which are stress-tolerant or nutrient dense generated under the Program and certified by the Bangladesh Seed Association for dissemination (DLI2)	Annual	BRRI	Document Review	BRRI



Certified rice seeds produced and marketed through the network	Certified rice seeds produced and marketed by members of the rice seed multiplication and marketing network supported under the Program (DLI2)	Annual	BRRI and DAE	Process Monitoring	BRRI/DAE
Stress-tolerant and nutrient-dense non-rice varieties generated	New non-rice varieties which are stress-tolerant or nutrient-dense newly generated under the Program and certified by the Bangladesh Seed Association for dissemination (DLI3)	Annual	BARI	Process monitoring, Document Review	BARI/DAE
Certified non-rice seeds produced and marketed through the networks	Certified non-rice seeds produced and marketed by members of the relevant crop-specific seed multiplication and marketing networks supported under the Program (DLI3)	Annual	BARI	Process monitoring, Document review	BARI, DAE
Farmers adopting improved agricultural technology	This indicator measures the number of farmers (of agricultural products) who have adopted an improved agricultural technology promoted by operations supported by the World Bank.	Annual	DAE, BADC	Process Monitoring, Document Review, Annual Survey	DAE, BADC



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NB: "Agriculture" or "Agricultural" includes: crops, livestock, capture fisheries, aquaculture, agroforestry, timber and non-timber forest products. Adoption refers to a change of practice or change in use of a technology that was introduced or promoted by the project. Technology includes a change in practices compared to currently used practices or technologies (seed preparation, planting time, feeding schedule, feeding ingredients, postharvest storage/ processing, etc.). If the project introduces or promotes a technology package in which the benefit depends on the application of the entire package (e.g., a combination of inputs such as a new variety and advice



	on agronomic practices such as soil preparation, changes in seeding time, fertilizer schedule, plant protection, etc.), this counts as one technology. Farmers are people engaged in farming of agricultural products or members of an agriculture related business (disaggregated by men and women) targeted by the project.				
Farmers adopting improved agricultural technology - Female					
Farmers adopting improved agricultural technology - male					
Extension staff, who are trained in e- extension service delivery and digital M&E tools	Extension staff who completed training on e-extension service delivery and digital M&E tools (DLI5, DLI10)	Annual	DAE	Document Review, Random Sampling	DAE
Share of which women		Annual	DAE	Document Review and MIS	DAE
Farmers received services through 'Krishak Smart Card'	Farmers received services (extension support, input subsidy support, and credit support) through 'Krishak Smart Card" (DLI5)	Annual	DAM	Document Review, Random Sampling	DAM, DAE



Share of which women		Annual	DAM	Document Review and Random Sampling	DAM, DAE
E-voucher pilot for new input subsidy mechanism implemented in targeted Upazilas	The successful completion and delivery of an evoucher pilot to deliver input subsidies in targeted Upazilas is measured by an approved completion report. Measurement: in year 2, design completed; in 3 years, pilot is launched; in year 5, pilot is completed (DLI5)	Annual	DAE	Document Review, Onsite review	DAE
Institutions provide financial services to at least 5,000 farmers	Institutions (e.g., financial institutions, fintechs and others) which provide financial services through 'Krishak Smart Card" to at least 5,000 farmers (DLI5)	Annual	DAE	Document Review, Sample survey	DAE
Laboratories receiving accreditation for a testing process	Number of laboratories which are either established, refurbished or upgraded with support from the Program and are accredited by Bangladesh Accreditation Board (DLI6)	Annual	DAE	Document review, Onsite review	DAE
Testing processes for agricultural commodities accredited	Number of testing processes for agricultural commodities accredited (DLI6)	Annual	DAM/DAE	Document Review, Onsite Review	DAM/DAE



MoUs with businesses and financial institutions for on-the-job training and financial support	MoUs with businesses and financial institutions for onthe-job training and financial support for women and youth (<35 years) (DLI7)	Annual	DAM	Document Review, On- Site Review	DAM
Women and youth are trained under the project	Women and youth (<35 years) who received training (including on-the job training) in commercial agriculture, agribusinesses, new agricultural innovations, and agricultural services under the Program (DLI7)	Annual	DAM, DAE	Document Review, Onsite Review, MIS	DAM, DAE
Share of which women		Annual	DAM, DAE	Document Review, On- site Review, MIS	DAM, DAE
Increase in R&D budget for NARS Institutes	Cumulative percentage increase in R&D budget (in BDT) to NARS Institutions. This implies an incremental annual increase of around 10% (DLI8)	Annual	BARC	Document Review	BARC
MoUs and agreements on research collaboration with international research labs and the private sector	MoUs and agreements having been signed with international research labs on research collaboration and with the private sector	Annual	BARC	Document Review, On- site Review	BARC



	on scaling up of research outcomes of NARS institutes (DLI8)				
Promotional bodies for select commodities established and operational	Promotional bodies established for export-oriented commodities (mango, jackfruit, tomato, potato, and fine rice) and operational. Operational means that an organizational mechanism is developed and annual report produced (incl. activities conducted, plans for next year) (DLI9)	Annual	DAM, DAE	Document Review, On- site Review	DAM, DAE
Stakeholders' organizations of selected value chains strengthened with institutional capacity building support	Registered stakeholder organizations, such as farmers, traders, processors, of selected 5 value chains who participate in capacity building program under the Program (DLI9)	Annual	DAE/DAM	Document Review, On- Site Review	DAE/DAM
Agricultural Information Systems improved	Agricultural information systems can include ag statistics, market research systems, including foreign markets, which were upgraded with improved software, and/or staff capacity (DLI10)	Annual	DAE	Document Review	DAE



Upazilas with staff equipped in high quality data collection capacity	Number of upazilas with staffs equipped in high quality data collection capacity – including: hardware, software and improved capacity. (DLI10)	Annual	DAE	Document Review, Onsite review	DAE
Agricultural Annual Performance Report prepared and published	Agricultural Annual Performance Report prepared and published. (DLI10)	Annual	DAE/MoA	Document Review	DAE/MoA
Quarterly Agricultural Policy Note prepared and published	Quarterly Agricultural Policy Note (including market forecasts) prepared and published (DLI10)	Quarterly	DAM	Document review	DAM
Share of beneficiaries who received support from the Program who are satisfied	Stakeholders who receive Program services, such as imroved rice and non-rice varieties irrigation technologies, Krishak Smart Card, entrepreneurship training, which report that they are satisfied (satisfied refers to a score 4 and 5, out of 5) (DLI1,2,3,4,5)	Annual	DAE	Process Monitoring, Document Review	DAE

ANNEX 2. DISBURSEMENT LINKED INDICATORS, DISBURSEMENT ARRANGEMENTS AND VERIFICATION PROTOCOLS

Disbursement Linked Indicators Matrix				
DLI 1	Development, rollout, and adoption of GAP standards in fruit and vegetable production			on
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	Yes	Hectare(Ha)	60.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
2024	0.00		3.00	See Description
2025	0.00		6.00	See Description
2026	75,000.00		13.00	See Description
2027	150,000.00		14.00	See Description
2028	300,000.00		24.00	See Description
DLI 2	Development and adoption of	of High Yielding Rice V	arieties	
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	Yes	Hectare(Ha)	55.00	0.00
Period	Value		Allocated Amount (USD)	Formula



Baseline	0.00			
2024	40,000.00		9.00	See Description
2025	80,000.00		9.00	See Description
2026	120,000.00		9.00	See Description
2027	160,000.00		13.00	See Description
2028	200,000.00		15.00	See Description
DLI 3	Crop diversification towards non-rice cereals, pulse		es, oilseeds, and horticulture crops	
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	Yes	Hectare(Ha)	65.00	
Intermediate Outcome Period	Yes Value	Hectare(Ha)		0.00
		Hectare(Ha)	65.00	0.00
Period	Value	Hectare(Ha)	65.00 Allocated Amount (USD)	0.00
Period Baseline	Value 0.00	Hectare(Ha)	Allocated Amount (USD) 0.00	0.00 Formula
Period Baseline 2024	Value 0.00 20,000.00	Hectare(Ha)	65.00 Allocated Amount (USD) 0.00 15.00	0.00 Formula See Description
Period Baseline 2024 2025	Value 0.00 20,000.00 50,000.00	Hectare(Ha)	65.00 Allocated Amount (USD) 0.00 15.00	0.00 Formula See Description See Description



DLI 4	Adoption of improve	Adoption of improved and efficient irrigation technologies by farmers		
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	Yes	Hectare(Ha)	60.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
2024	0.00		5.00	See Description
2025	0.00		0.00	See Description
2026	20,000.00		15.00	See Description
2027	50,000.00		10.00	See Description
2028	100,000.00		30.00	See Description
DLI 5	Expansion of digital	Expansion of digital agricultural service provision through 'Krishak Smart Card'		
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Number	70.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
2024	0.00		5.00	See Description
2025	500,000.00		5.00	See Description



2026	1,200,000.00		17.00	See Description
2027	2,200,000.00		23.00	See Description
2028	5,000,000.00		20.00	See Description
DLI 6	Promotion of the accreditation	on of seed certificatio	n and food safety testing processes	5
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Number	35.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
2024	0.00		0.00	See Description
2025	0.00		5.00	See Description
2026	4.00		7.00	See Description
2027	10.00		18.00	See Description
2028	20.00		5.00	See Description
DLI 7	Promotion of agri-food entrepreneurship for youth and women			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Number	43.00	0.00
Period	Value		Allocated Amount (USD)	Formula



Baseline	0.00			
2024	0.00		0.00	See Description
2025	3,000.00		6.00	See Description
2026	8,000.00		12.00	See Description
2027	14,000.00		13.00	See Description
2028	20,000.00		12.00	See Description
DLI 8	Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension services			ent of an operational evaluation
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Percentage	100.00	0.00
D 1 1	Value			0.00
Period	Value		Allocated Amount (USD)	
Period Baseline	Value 100.00		Allocated Amount (USD)	
			, ,	
Baseline	100.00		10.00	Formula
Baseline 2024	100.00		10.00	Formula See Description
Baseline 2024 2025	100.00 110.00 121.00		10.00 15.00 20.00	Formula See Description See Description



DLI 9	Establishment and c	Establishment and operationalization of value chain promotional bodies for select commodities		
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Output	Yes	Number	30.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	0.00			
2024	0.00		5.00	See Description
2025	0.00		0.00	See Description
2026	2.00		10.00	See Description
2027	5.00		15.00	See Description
2028	5.00		0.00	See Description
DLI 10	Improvement of qua	Improvement of quality information system (agricultural statistics and market research services incl. foreign markets)		
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	Yes	Yes/No	25.00	0.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	No			
2024	Yes		2.00	See Description
2025	Yes		5.00	See Description



2026	Yes	8.00	See Description
2027	Yes	8.00	See Description
2028	Yes	2.00	See Description



	Verification Protocol Table: Disbursement Linked Indicators
DLI 1	Development, rollout, and adoption of GAP standards in fruit and vegetable production
Description	Description, allocated amount, targets and formula for DLRs: - DLR 1.1: GAP standards and protocols for fruits and vegetables developed and approved by MoA (US\$5 million) = US\$1 million for each 3 protocols (target = 15 protocols) - DLR 1.2: Number of farmers and certification staff trained in GAP certification (US\$10 million) = US\$1 million for every 200,000 farmers trained (target = 1,000,000) and US\$1 million for every 300 staff trained (target = 1,500) - DLR 1.3: Increased area (hectare) under fruits and vegetables with GAP certification (US\$45 million) = US\$3 million each for additional 20,000 Ha (target = 300,000 Ha)
Data source/ Agency	Lead agency: DAE Contributing Agencies: DAM, BARC, BARI, BADC
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	DAE will submit documentary evidence of: a) approval of GAP standards and protocols by BARC, b) farmers and certification staff having completed trainings on GAP, and c) farms (including size) having received GAP certification for fruits and vegetables cultivation based on annual audits. The third-party VA will verify this evidence through: for a) document review, for b) and c) on site review and sample survey based on documentation received.
DLI 2	Development and adoption of High Yielding Rice Varieties
Description	Description, allocated amount, targets and formula for DLRs: - DLR 2.1: Stress-tolerant and nutrient-dense rice varieties generated (US\$30 million): target = 5 varieties in total: US\$6 million for each variety - DLR 2.2: Network established and operational for seed multiplication and marketing (US\$10 million): target = total 50 tons of Breeder Seeds (BS), 4,000 tons of Foundation Seeds (FS), 5000 tons of Certified Seeds produced and marketed through the network = 10t BS, 800t FS, 1,000t CS produced and marketed in Year 2 and 3 / 15t BS, 1,200t FS, 1,500t CS in Year 4 and 5: US\$2 million each for 50t BS, 2,000t FS, 2,500t CS - DLR 2.3: Increased area (hectare) under high yielding rice varieties (US\$15 million): target = 200,000ha: US\$3 million for each additional 40,000ha
Data source/ Agency	Lead agency: BRRI Contributing Agencies: DAE, BARC, BADC



Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	BRRI will submit documentary evidence of: a) new rice varieties which are stress-tolerant or nutrient dense having been generated under the Program and having been certified by the Bangladesh Seed Association for dissemination, b) BS, FS and CS of rice having been produced and marketed by members of the rice seed multiplication and marketing network supported under the Program, and c) farms (including size) under high-yielding rice varieties developed by NARS and rolled out under the Program as well as varieties from BRRI100+ and up, which had already been developed but had not yet been adopted by farmers. The current number of farms and their size should be updated and reported annually (instead of reporting cumulative numbers). The third-party VA will verify this evidence through: for a) document review, for b) and c) on site review and sample survey based on documentation received.
DLI 3	Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops
Description	Description, allocated amount, targets and formula for DLRs: - DLR 3.1: Stress-tolerant or nutrient-dense non-rice varieties generated (US\$20 million): target = 15 varieties: US\$1 million each for the first 5 varieties and US\$1 million each for the rest of new varieties - DLR 3.2: Seed/samplings/propagative material multiplication and marketing network established and operational (US\$10 million) = target = total 50 tons of Breeder Seeds (BS), 4,000 tons of Foundation Seeds (FS), 5000 tons of Certified Seeds produced and marketed through the network = 10t BS, 800t FS, 1,000t CS produced and marketed in Year 2 and 3 / 15t BS, 1,200t FS, 1,500t CS in Year 4 and 5: US\$2 million each for 50t BS, 2,000t FS, 2,500t CS - DLR 3.3: Increased area (Ha) under non-rice cereals, pulses, oilseeds, and horticulture crops (US\$35 million): target = 200,000ha (Y1= 20,000, Y2= 30,000, Y3 = 40,000, Y4 = 50,000, Y5 = 60,000): US\$7 million every additional 40,000Ha
Data source/ Agency	Lead agency: BARI Contributing Agencies: DAE, BARC, BADC
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	BARI will submit documentary evidence of: a) new non-rice varieties which are stress-tolerant or nutrient dense having been generated under the Program and having been certified by the Bangladesh Seed Association for dissemination, b) BS, FS and CS of non-rice crops having been produced and marketed by members of the relevant crop specific seed multiplication and marketing networks supported under the Program, and c) farms (including size) under stress-tolerant or



	nutrient dense non-rice varieties developed and rolled out under the Program. The current number of farms and their size should be updated and reported annually (instead of reporting cumulative numbers). The third-party VA will verify this evidence through: for a) document review, for b) and c) on site review and sample survey based on documentation received. It is possible that the area measured overlaps with the area under GAP certification (DLI 1) and the area under efficient irrigation systems (DLI 4). The indicator does not account for crop management practices.
DLI 4	Adoption of improved and efficient irrigation technologies by farmers
Description	Description, allocated amount, targets and formula for DLRs: - DLR 4.1: Strategic plan for adoption of efficient irrigation technologies approved (US\$10 million) = Yes/No in Year 1 - DLR 4.2: Increased area (Ha) under resilience-building efficient irrigation technologies (US\$50 million): target = 100,000Ha (Y3 = 20,000, Y4 = 30,000, Y5 = 50,000): US\$10 million for every new 20,000Ha
Data source/ Agency	Lead agency: BADC Contributing Agencies: DAE, BMDA, BARI, BRRI
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	BADC will submit documentary evidence of: a) approval of the strategic plan for adoption of efficient irrigation technologies, and b) farms (including size) under resilience-building efficient irrigation technologies promoted under the Program, including sprinkler, drip irrigation, and buried pipe & AWD. The current number of farms and their size should be updated and reported annually (instead of reporting cumulative numbers). The third-party VA will verify this evidence through: for a) document review, for b) on site review and sample survey based on documentation received.
DLI 5	Expansion of digital agricultural service provision through 'Krishak Smart Card'
Description	Description, allocated amount, targets and formula for DLRs: - DLR 5.1: Strategic plans approved for rolling out of the Krishak Smart Card and e-voucher pilot for new inputs subsidy mechanism (US\$5 million) = Yes/No in Year 1 - DLI 5.2: Digital extension services delivered and e-voucher pilot for new input subsidy mechanism implemented in targeted Upazilas (US\$15 million) = Number of upazilas covered by digital extension = US\$1 million for every new 100 upazilas (target = 495 upazilas, total US\$5 million) / Number of upazilas where e-subsidy pilot conducted = US\$2 million for every 3 upazilas



	(Target = 15, total US\$10 million) - DLR 5.3: Number of farmers received services (extension support, input subsidy support, and credit support) through 'Krishak Smart Card' (US\$50 million): target = 5,000,000 : US\$5 million for every 500,000 farmers
Data source/ Agency	Lead agency: DAE Contributing Agencies: DAM, BARC, BADC
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	DAE will submit documentary evidence of: a) approval of the strategic plans for rolling out of the Krishak Smart Card and evoucher pilot for new inputs subsidy mechanism, b) upazilas where digital extension services are delivered and e-voucher pilot implemented, and c) farmers having received services through Krishak Smart Card. The third-party VA will verify this evidence through: for a) document review, for b) and c) on site review and sample survey based on documentation received.
DLI 6	Promotion of the accreditation of seed certification and food safety testing processes
Description	Description, allocated amount, targets and formula for DLRs - DLR6.1: Laboratories receiving accreditation for a testing process (US\$25 million): target = 10 labs (Y2= 2, Y3=3, Y4=5): US\$5 million for every 2 labs - DLI 6.2: Testing processes for agricultural commodities accredited (US\$10 million): target = 20: US\$2 million for every 4 processes accredited
Data source/ Agency	Lead agency: DAE Contributing Agencies: DAM, BARC, BADC, BARI, BRRI
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	DAE will submit documentary evidence of: a) laboratories having been either established, refurbished or upgraded with support from the Program and having been accredited for a testing process by Bangladesh Accreditation Board, and b) testing processes for agricultural commodities accredited in testing laboratories supported or not by the Program. The third-party VA will verify this evidence through document review.



DLI 7	Promotion of agri-food entrepreneurship for youth and women
Description	Description, allocated amount, targets and formula for DLRs: - DLR 7.1: MoUs with businesses and financial institutions for on-the-job training and financial support for women and youth (US\$10 million) target = 30: US\$1 million for every 3 MoUs - DLR 7.2:Women and youth trained (US\$33 million): target = 20,000: US\$3 million for every 2,000 and additional US\$3 million if 20,000 target is achieved
Data source/ Agency	Lead agency: DAM Contributing Agencies: DAE, BARC, BADC
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	DAM will submit documentary evidence of: a) MoUs having been signed with businesses and financial institutions for onthe-job training and financial support for women and youth, and b) women and youth having received training (including on-the job training) in commercial agriculture, agribusinesses, new agricultural innovations, and agricultural services under the Program. The third-party VA will verify this evidence through: for a) document review, for b) sample survey based on documentation received.
DLI 8	Increase of R&D activities for new technologies and innovations along with development of an operational evaluation system for NARS institutes and extension services
Description	Description, allocated amount, targets and formula for DLRs - DLR 8.1 Increase in R&D budget for NARS Institutes (US\$50 million): target = incremental annual increase of 10%: US\$10 million for every 10% annual increase - DLR 8.2 MoUs/agreements on research collaboration with international research labs and the private sector (US\$50 million): target = 50: US\$5 million for every 5 MoUs
Data source/ Agency	Lead agency: BARC Contributing Agencies: BADC, BARI, BRRI, DAE, DAM
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	BARC will submit documentary evidence of: a) percentage increase in R&D budget (in BDT) having been granted to NARS Institutes, and b) MoUs and agreements having been signed with international research labs on research collaboration and



	with the private sector on scaling up of research outcomes of NARS institutes. The third-party VA will verify this evidence through document review.
DLI 9	Establishment and operationalization of value chain promotional bodies for select commodities
Description	Description, allocated amount, targets and formula for DLRs: - DLR 9.1: Policy and regulatory framework developed and adopted by MoA for value chain specific promotional bodies (US\$5 million) = Yes/No in Year 1 - DLR 9.2: Value chain-specific promotional bodies established and operational for at least five commodities (US\$25 million): US\$5 million for every new body
Data source/ Agency	Lead agency: DAM Contributing Agencies: DAE, BARC
Verification Entity	Third-Party Verification Agency (to be recruited)
Procedure	DAM will submit documentary evidence of: a) policy and regulatory framework having been adopted by MoA for value chain specific promotional bodies, and b) promotional bodies established for export-oriented commodities (mango, jackfruit, tomato, potato, and fine rice) and operational. Operational means that an organizational mechanism is developed and annual report produced (incl. activities conducted, plans for next year). The third-party VA will verify this evidence through document review.
DLI 10	Improvement of quality information system (agricultural statistics and market research services incl. foreign markets)
Description	Description, allocated amount, targets and formula for DLRs: - DLR 10.1: Upazilas with staff equipped in high quality data collection capacity (US\$15 million): Y2=100, Y3= additional 200, Y4= additional 200: US\$3 million for every 100 upazilas - DLR 10.2 Quarterly Agricultural Policy Note prepared and published (US\$10 million): Yes (published all 4 quarterly notes)/No: US\$2 million for every Yes (Y1 to 5)
Data source/ Agency	Lead agency: DAE Contributing Agencies: DAM, BARC, BADC
Verification Entity	Third Part Verification Agency (to be recruited)
Procedure	DAE will submit documentary evidence of: a) upazilas with staff equipped in high quality data collection capacity – including: hardware, software and improved staff capacity, and b) quarterly Agricultural Policy Note, including market forecasts having



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been published.
The third-party VA will verify this evidence through: for a) on site review and sample survey based on documentation
received, and for b) document review.

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ANNEX 3. (SUMMARY) TECHNICAL ASSESSMENT

1. Description and Assessment of Program Strategic Relevance and Technical Soundness

a. Strategic Relevance

- 1. PARTNER will support the objectives of the NAP 2018 and its 2020 PoA targets. The NAP is the GoB's medium-term sector strategy for agricultural transformation in the country, and NAP's PoA, finalized in 2020, defines specific areas of intervention and sets targets and timelines. Considering the contribution of the sector to national GDP and employment (15 percent in 2017 and 41 percent in 2015-16, respectively), the NAP is of high strategic relevance for Bangladesh. PARTNER will contribute to achieving the objectives of the NAP 2018, which prioritizes diversification, commercialization, and mechanization in agriculture as specific goals to transform the agriculture sector towards a more productive, profitable, and sustainable agricultural system. In line with the GoB's strategic priorities for agriculture, PARTNER aims to support crop diversification and modernization, including CSA in a shift towards a more climate resilient and market-oriented food system.
- 2. The Program will respond to Bangladesh's policy goals and will contribute to key strategic priorities of the GoB. PARTNER is well aligned with key goals of the 8th FYP 2021-2025 of the GoB, which aims at reducing extreme poverty to 5 percent and moderate poverty to 12 percent, achieving major Sustainable Development Goal (SDG) targets, among others. The Program will contribute to the key sectoral priorities identified by the plan for agriculture such as promoting modern and sustainable agriculture development with an accelerated process of transformation in agriculture from a predominantly semi-subsistence orientation towards increasingly commercialized and diversified agriculture. PARTNER also contributes to the longer-term vision of the GoB, as laid out in the Bangladesh Delta Plan 2100 released in 2017, which aims at achieving long-term water and food security, economic growth and environmental sustainability while effectively reducing vulnerability to natural disasters and building resilience to climate change and other challenges faced in the Delta through robust, adaptive, and integrated strategies and equitable water governance. PARTNER responds to these aims by enhancing beneficiaries' climate resilience through community mobilization and organization, and promotion of CSA practices in project activities.
- 3. PARTNER will contribute to crowding in the private sector along the agri-food VC. The Program will follow a three-pronged approach to supporting greater participation and investment from the private sector: (i) Lifting legal and regulatory constraints for private sector participation through policy reforms, especially in the seed sector; (ii) Improving market conditions for private investment through GAP practice adoption at farm level, which will increase produce quality and reliability; and (iii) Maximizing private sector implementation of program activities through PPPs, including areas such as research and extension and marketing services.

b. Technical Soundness

³⁶ Alam, S. Bangladesh Planning Committee: Keynote Session: Effective Partnership for Implementation of Five- Year Plan towards Achieving SDGs. http://bdf.erd.gov.bd/public/uploads/images/publication/1580632887-50918960.pdf. Accessed December 2020.



- 4. PARTNER's overall framework rests on a solid technical basis. The Program reflects the findings and recommendations of the analytical work and sectoral diagnostics carried out by the World Bank in recent years. These include Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities, 2020; Climate Smart Agriculture Investment Plan, 2020; Bangladesh Rural Income Diagnostic Study, 2021; and Dynamics of Rural Growth in Bangladesh Study, 2016. Overall, these assessments highlight the importance of a sectoral transformation approach with a focus on productivity improvement, VC strengthening, and enhancing food safety, while ensuring climate resilience of the sector. The Program's technical design is also based on long-standing experience in agricultural development in the country and abroad. Interventions under the proposed Program consist of scaling up activities with which the MoA and its agencies are generally acquainted. The MoA and its agencies have acquired extensive experience in developing and implementing sectoral policies, strategies, and action plans, in working with key stakeholders, including farmers, agribusinesses, and in strengthening public institutions serving the agriculture sector. The MoA has clearly shown ownership of its sector policies and strategies throughout NAP preparation and implementation, with technical support from FAO. In addition to the NAP and the 8th FYP, PARTNER's design reflects priorities documented in other relevant policies for the sector adopted by the Government such as the Delta Plan 2100, the Agriculture Extension Policy 2020, the Agriculture Mechanization Policy 2020, and the Good Agriculture Practice Policy 2020.
- 5. The Program is built on experience and lessons learned from on-going and past agricultural projects in Bangladesh (such as NATP-2, IAPP, ANGeL) and the region, supported by the World Bank and other partners. Overall design of the Program also benefits from the lessons learned through the World Bank's global experience with similar PforR operations and other agricultural transformation programs, especially in South and South-East Asia.
- 6. The technical soundness of PARTNER has been assessed by RA against relevant experience and good practices, adapted as necessary to the specific context of Bangladesh.
- 7. RA1, Promoting Sustainable and Nutritious Food Production, aims at increasing productivity of all key crops such as cereals, pulses, fruits and vegetables, and spices, promoting agricultural diversification and enhancing food safety and building climate resilience in the sector. The operation will promote productivity gains in rice in order to ensure self-sufficiency and increasing land availability seasonally or permanently for other crops with a high market potential. Under RA1, through enhanced research, extension, and private sector linkages, improved seed varieties (HYV, nutrient-dense, low-carbon, stress-tolerant, hybrid, and so on) and other innovations will be promoted. Adoption of GAP/IPM/CSA practices will be supported through the strengthening of market-led extension services. Technology Villages will be established in all Upazillas for onfarm technology demonstration of new varieties and technological innovations. Farmers will be trained on CSA and the efficient use of inputs. Commodity-based producers' organizations will be strengthened, and their market linkages will be enhanced, through productive partnerships with off-takers.
- 8. PARTNER's approach to productivity increase (RA1) is validated by Bangladesh's agricultural performance in the past and by international experience. Other than political will and leadership, the impressive agricultural growth in Bangladesh in the past decades is explained by factors such as: the installation of solar-powered irrigation pumps, the establishment of agriculture information centers, US\$7.2 billion investment in agriculture in the 2009-2017 period, the provision of agricultural assistance cards to 21 million farmers, the training of 41,500 farmers, 2,886 entrepreneurs and businesses, and 700 NGO workers, and by increasing



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food storage capacity from 1.5 to 2.1 million metric tons.³⁷ BRRI alone, during 2018-19 to 2020-21, trained 20,084 farmers, conducted 20,625 field demonstrations and 167 symposiums/seminars/workshops, released innovative agricultural machinery (i.e., transplanters, harvesters, weeders), and released 14 high yielding rice varieties, among other achievements. PARTNER will build on these proven and successful interventions. As extensively documented in the 2008 World Development Report³⁸, investments in technology and extension, rural infrastructure, and human capital, coupled with policy and institutional changes, are the main sources of productivity growth. PARTNER will intervene in all these sources of productivity growth ensuring, through the promotion of CSA practices, that not only environmental costs are avoided, but also that the Program contributes to climate change mitigation.

- 9. Market and agronomic conditions are favorable for crop diversification. Bangladesh's tropical location, fertile land, and moisture-rich loamy soil allows the country to grow more than 90 vegetables and 60 fruits. According to FAO, in 2017-18, Bangladesh ranked third in vegetable production globally, with 3.9 million tons. However, fruit and vegetable consumption in Bangladesh (204g/person/day) is below the minimum dietary requirements defined by FAO and WHO (400g/person/day). Furthermore, Bangladesh currently exports coconut, pineapple, mangoes, apples, seed potatoes, tomatoes, leeks, cauliflower, and so on to more than 40 countries. A recent study³⁹ identified pumpkin, eggplant, okra, cabbage, cauliflower, tomato, mango, pineapple, jackfruit, banana, and guava as having high economic potential. The main barriers for farmers to increase fruit and vegetable production identified by this study include: (i) limited access to high-quality fruit and vegetable seeds, fertilizers, and pesticides; (ii) limited knowledge of GAP; (iii) poor infrastructure, logistics framework and lack of processing; (iv) access to finance and land titles problems for women; and (v) social norms about women, which restrict their social mobility. To overcome these barriers, PARTNER will increase the availability of high-quality fruit and vegetable seeds and promote GAP and IPM practices. Through the establishment of Technology Villages in all Upazilas, the Program will support the provision of market-oriented extension services. PARTNER will also promote the adoption of food safety quality standards (RA2). PARTNER will contribute to increasing farmers' access to finance through the provision of the KSC (RA2). Regarding women's participation in fruit and vegetable production, women will also be recipients of the KSC and trained (including youth) in commercial agriculture (RA2). Furthermore, PARTNER will strengthen institutions and operations of commodity-based producers' organizations, promote market integration by linking farmers with off-takers through productive partnerships (RA1), and support the establishment and operation of VC specific promotional bodies for selected commodities (RA3).
- 10. RA2, Increasing Entrepreneurship and Access to Services along the VCs, aims at making the provision of services and subsidies to farmers more efficient, helping with the reform of the food safety system by strengthening the national testing laboratories, and promoting access to better markets. PARTNER will also aim at improving working conditions of female farmers and promoting an active participation of women and youth as agents of change by providing them with appropriate skills to enhance their employability or help them create their own higher-value jobs along the agri-food VC.
- 11. PARTNER will promote efficient input-use technologies (RA1), which will reduce crop production costs / increase farmers' income. According to the 2018-19 Bangladesh Integrated Household Survey, labor costs account for 49, 55, and 58 percent of total production costs for Boro, Aman, and Aus rice, respectively. For

³⁷ Centre for Research and Information. December, 2018. "The Bangladesh Model in Agriculture Growth: 2009-2018".

³⁸ https://openknowledge.worldbank.org/handle/10986/5990

³⁹ Haki Pamuk, Mohammad Jahangir Alam and Thomas Tichar. 2021. "Scoping study on fruits and vegetables; results from Bangladesh". Wageningen University & Research.



non-rice crops, labor costs may vary from 36 percent (potato) to 57 percent (lentil) of total production costs. Appropriate scale mechanization, together with the adoption of GAP/IPM/CSA practices, will increase input-use efficiency and reduce production costs / increase crop profitability. Farmers' income improvement will also be driven by PARTNER's intervention in the strengthening of producers' organizations (RA1) and the fostering of productive partnerships between them and buyers. Empirical evidence, according to 239 studies reviewed by Bizikova et.al. (2020),⁴⁰ support this approach.

- 12. PARTNER aims at empowering women's role in agriculture and increasing job opportunities for the youth. For this purpose, women and youth will be trained in high-value agriculture, agribusiness, and technology services, and women self-help groups will be promoted and strengthened to increase their access to training, services, credit, and markets. Both youth and women startups will be supported. By empowering women's role in agriculture, farm income will be increased. According to FAO, 41 closing the gender gap in access and use of productive resources would increase agricultural output in the developing world substantially (by 2.5 to 4 percent). PARTNER will contribute to a more dynamic agricultural sector, which will in turn require more services. These, through proper training, innovative approaches (such as digital technologies), and the support of startups, could be provided by women and youth, who are considered agents of change. Thus, the Program addresses one key barrier that some studies 42 have identified for an effective youth engagement: lack of start-up capital. Other barriers include possible low profitability of enterprises and personal aspirations, which PARTNER will need to address during implementation while recognizing the locally, socially, and culturally specific, context-dependent meanings and significance of youth.
- 13. RA3, Modernizing Institutions and Policies for Agriculture Transformation, aims at modernizing the agricultural research, education, and extension system and improving the efficiency and effectiveness of agricultural policies and programs. Current expenditure in agricultural R&D stands at 0.4 percent of GDP. The PoA of the NAP aims at raising that figure to 1 percent. Empirical evidence has demonstrated the significant positive impact of investment in R&D on agricultural productivity. In fact, multiple country case studies show that productivity gains consistently point to investments in R&D as major sources of growth. ⁴³ Furthermore, productivity gains can have an important role in poverty alleviation ⁴⁴ and repurposing support towards investments that are targeted at productivity-enhancing and emissions-reducing technologies has a great potential for reducing poverty, lowering the cost of healthy diets, and reducing the amount of land needed for agriculture. ⁴⁵ To face the pressing challenges posed by climate change, the stagnation of agricultural productivity growth, and Bangladesh's growing population, investments in R&D become crucial. PARTNER will increase investment in this strategic area by strengthening infrastructure and human resources in the NARS. The NARS will be equipped with advanced technologies, and their staff's capacity will be strengthened, including in their ability to reach out to farmers. With respect to improving efficiency and effectiveness of agricultural policies and programs, empirical evidence highlights the importance of policies

⁴⁰ Livia Bizikova, et.al. October 2020. "A scoping review of the contributions of farmers' organizations to smallholder agriculture". *Nature Food*. Vol. 1.

⁴¹ FAO. 2011. The state of food and agriculture; Women in agriculture: closing the gender gap for development. Rome.

⁴² Joseph Mulema, et.al. 2021. Barriers and opportunities for the youth engagement in agribusiness: empirical evidence from Zambia and Vietnam. *Development in Practice*.

Wendy Geza, et.al. 2021. Youth participation in agriculture: a scoping review. Sustainability 2021, 13, 9120.

⁴³ The World Bank. 2007. Agriculture for Development. World Development Report 2008.

⁴⁴ Peter B.R. Hazell. 2008. An Assessment of the Impact of Agricultural Research in South Asia since the Green Revolution. Science Council CGIAR.

⁴⁵Madhur Gautam, et.al. 2022. Repurposing Agricultural Policies and Support. The World Bank / IFPRI.



and programs on the performance of agriculture. PARTNER will promote policy and institutional repurposing for agriculture modernization. The Program will develop a system-wide MIS for evidence-based policy making by the MoA. Policies and regulatory frameworks will also be developed and adopted for (i) crowding in private investment, (ii) piloting e-voucher programs to increase efficiency in input use, and (iii) creating/strengthening promotional bodies to increase competitiveness of selected commodity VCs.

2. Description and Assessment of Program Expenditure Framework

14. PARTNER is backed by an adequate government expenditure framework. In the last five fiscal years, the MoA was allocated BDT 831.3 billion, which accounts for 3.0 percent of the total national budget. Based on the medium-term budgetary framework and projection exercise, the MoA should be allocated BDT 954.0 billion the upcoming five fiscal years. Looking into the seven IAs' expenditures, total allocation was BDT 256.1 billion in the last five years, which should lead to a total allocation of BDT 326.6 billion in the upcoming five years (see Table 3.1). The incremental expenditure of PARTNER, BDT 71.8 billion (equivalent to US\$718 million), accounts for 7.5 percent of the projected allocation to the MoA and 22 percent of the projected allocation to the seven IAs. This indicates that there will be a consistent and sustainable flow of funds to the agencies to carry out the activities throughout the period of the PforR.

Table 3.1: Financial Situation of MoA and IAs in terms of General Public Budget (billion BDT)

			Budget FY2018-19 to FY2022-23			Projection for FY2023-24 to FY2027-28							
	Description	2018-19	2019-20	2020-21	2021-22	2022-23	Total	2023-24	2024-25	2025-26	2026-27	2027-28	Total
	Total	127.9	129.6	142.1	189.4	242.2	831.3	197.5	217.2	172.0	179.7	187.5	954.0
MoA	Operating	108.9	110.9	118.2	125.5	198.9	662.3	149.8	164.7	133.4	137.5	141.7	727.2
	Development	19.1	18.7	24.0	64.0	43.4	169.0	47.7	52.5	38.6	42.2	45.7	226.8
	Total	21.3	22.5	26.7	36.4	37.7	144.5	33.5	32.4	44.5	48.6	52.7	211.6
DAE	Operating	13.9	16.2	16.6	18.6	17.8	83.1	19.3	21.2	21.6	22.8	24.0	108.9
	Development	7.4	6.3	10.1	17.7	19.9	61.4	14.2	11.2	22.9	25.8	28.6	102.7
	Total	0.4	0.7	0.7	0.8	1.7	4.3	2.3	0.6	2.3	2.7	3.0	10.9
DAM	Operating	0.3	0.2	0.3	0.4	0.5	1.7	0.5	0.5	0.6	0.7	0.7	3.0
	Development	0.1	0.4	0.4	0.5	1.2	2.6	1.8	0.1	1.7	2.0	2.3	7.9
	Total	11.7	11.3	13.9	13.7	16.4	67.0	10.4	6.5	14.0	14.6	14.6	60.1
BADC	Operating	5.5	4.9	5.0	4.8	5.1	25.3	5.1	5.2	6.3	6.9	6.7	30.2
	Development	6.3	6.4	8.9	8.9	11.3	41.8	5.3	1.4	7.6	7.8	7.9	29.9
	Total	1.1	1.0	1.3	0.7	0.7	4.8	1.5	1.7	1.8	2.0	2.1	9.1
BARC	Operating	0.3	0.3	0.3	0.3	0.3	1.5	0.3	0.3	0.3	0.3	0.3	1.6
	Development	0.8	0.7	1.0	0.4	0.4	3.3	1.2	1.4	1.5	1.6	1.8	7.5
	Total	3.3	4.3	3.8	4.0	5.5	20.9	3.6	3.5	3.9	4.1	3.9	19.1
BARI	Operating	2.5	2.6	2.7	3.0	3.2	13.9	3.2	3.3	3.6	3.9	3.8	17.8
	Development	0.8	1.7	1.1	1.0	2.4	7.0	0.4	0.2	0.4	0.2	0.1	1.3
	Total	1.8	1.6	1.4	1.3	1.6	7.8	1.5	1.4	1.4	1.4	1.5	7.2
BRRI	Operating	1.1	1.0	1.1	1.1	1.2	5.5	1.2	1.3	1.3	1.3	1.3	6.3
	Development	0.8	0.6	0.3	0.2	0.4	2.3	0.3	0.1	0.2	0.2	0.2	0.9
	Total	0.5	0.5	1.0	1.4	3.4	6.7	3.0	1.6	1.2	1.3	1.4	8.5
BMDA	Operating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Development	0.5	0.5	1.0	1.4	3.4	6.7	3.0	1.6	1.2	1.3	1.4	8.5
Seven	Total	40.1	41.8	48.8	58.4	67.0	256.1	55.8	47.7	69.2	74.7	79.2	326.6
_	Operating	23.6	25.2	26.0	28.2	28.0		29.6	31.7	33.7	35.8		167.8
Total	Development	16.6	16.5	22.9	30.2	38.9	125.1	26.2	15.9	35.5	38.9	42.3	158.8

Source: Bank staff compilation based on MoF budgetary data, MTBF, and projection exercise.

15. Considering the intended results of the Program, the composition of the estimated expenditures is well justified. Expenditure boundaries include all expenditures on the inputs that the Program needs to achieve intended results. The Program's estimated capital expenditures (goods/works) are US\$628.8 million, representing 46.8 percent of total expenditure, and the operating expenditures are US\$714 million (53.2 percent of total expenditures). According to the estimated expenditures by topline budget lines, Machinery and equipment represent 15.4 percent; Building other than dwelling, 14.8 percent; Training (local and foreign), 12.4 percent; Professional services, 9.8 percent; Agriculture supplies, 8.5 percent; and Administrative expenses, 5.0 percent, amongst others (see Table 3.2). The composition of expenditures is consistent with the intended results. Furthermore, all the expenditure lines of PARTNER lie within the current expenditure lines of the MoA. Thus, no new or changing lines will be required.

Table 3.2: Topline Budget Lines of the PARTNER Expenditures (US\$ million)

Economic	Table 3.2. Topline Budget Lines of t	IDA &	•		
Code	Description	IFAD	GoB	Total	%
A. Capital Exper	nditure				
21111	Residential buildings	0.0	20.4	20.4	1.5
41112	Buildings other than dwellings	65.5	132.8	198.3	14.8
41113	Other structures	23.4	75.9	99.3	7.4
41114	Land improvements	5.2	59.8	65.0	4.8
41121	Transport equipment	27.5	5.2	32.7	2.4
	Machinery and equipment other than				
41122	transport equipment	11.8	10.3	22.1	1.6
	Machinery and equipment not				
41123	elsewhere classified	65.4	119.6	185.0	13.8
41133	Computer software and databases	2.3	3.9	6.2	0.5
	Sub Total	201	428	629	46.8
B. Operating Ex	penditure				
31111	Officers' pay	2.8	11.4	14.3	1.1
31112	Staff's pay	0.5	6.3	6.8	0.5
31113	Allowances	1.1	10.4	11.5	0.9
32111	Administrative Expenses	19.7	47.7	67.4	5.0
32411	Domestic travel and transfer	3.0	3.4	6.4	0.5
32211	Fees, charges and commissions	1.4	2.3	3.7	0.3
38211	Other miscellaneous expenditure	0.1	1.3	1.4	0.1
32431	Petrol, oil and lubricants	10.7	8.4	19.1	1.4
32551	Printing and stationery	4.3	3.4	7.6	0.6
32561	General supplies and materials	2.5	40.7	43.2	3.2
32312	Domestic training	53.4	73.2	126.6	9.4
32311	Foreign training	35.8	5.1	40.9	3.0
32511	Agriculture supplies	49.7	64.9	114.6	8.5
32541	Food supplies	5.8	0.4	6.1	0.5
32571	Professional services	86.9	44.7	131.5	9.8
32581	Repairs and maintenance	24.0	26.4	50.4	3.8
36321	Capital grants	30.5	5.6	36.1	2.7
32573	Special expenses (contingency)	8.2	15.7	23.8	1.8
32521	Medical and surgical supplies	0.0	0.0	0.1	0.0
32572	Honorarium and special expenses	1.6	0.9	2.4	0.2



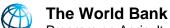
Sub Total	342	372.0	714	53.2
TOTAL (A+B)	543.0	800.0	1343.0	100.0

Source: Bank staff compilation based on the data provided by counterpart

- 16. The PARTNER IAs have a good track record of executing development programs. Each year, the MoA implements development programs, 85 percent of which are executed by the seven IAs. For instance, in FYs 2020-21 and 2021-22, the number of MoA's annual development programs (ADP) were 85 and 70, respectively. As high as 71 and 59 ADPs were executed under the seven IAs. According to the ADP implementation progress report, in both fiscal years 2020-21 and 2021-22, the MoA has implemented 98 percent of the ADPs, despite the COVID-19 pandemic, a figure significantly higher than that for the national average of ADP implementation. This suggests that the agencies will be able to deliver the PforR.
- 17. The execution of the indicative expenditures by BRRI and DAM may be challenging. During the upcoming five fiscal years, the seven IAs will be budgeted US\$3.265 billion through the national budget. In addition, under PARTNER, the agencies will be allocated an additional US\$718 million, which is 22 percent over the projected budget allocation. Overall, executing a 22 percent additional budget is plausible. However, looking at specific agencies, the PARTNER incremental budgets for BRRI and DAM account for 99 percent and 84.3 percent of their projected regular budgets, respectively.
- 18. IAs have sufficient capacity to carry out their planned activities and achieve intended results. The budget execution rate for all agencies is more than 90 percent, except DAE (81.9 percent). For DAE, during COVID-19 (FY 2019-20 & 2020-21), the execution rate fell compared to pre-COVID (FY 2018-19)., which is explained by the nature of DAE's work, as reduced mobility greatly affected extension service delivery.
- 19. Expenditures made by the IAs in recent years have resulted in considerable achievements, as shown in Table 3.3. For the upcoming years, to make agriculture profitable and ensure nutrition and food security for all, the MoA and its agencies have identified priority spending areas such as: (i) research to increase the production of rice and non-rice crops; (ii) production of quality seeds; (iii) extension for the adoption of improved crop production technologies by farmers (training, demonstrations, field days, rallies, fairs, media publicity); (iv) optimal use of surface water; (v) dissemination of information and communication technology at the field level; and (vi) optimal use of organic fertilizers in crop cultivation.

Table 3.3: Main Achievements of MoA Agencies (2016-17 to 2018-19)

Agency	Budget (2016-17 to 2018-19) (US\$ million)	Major Achievements (2016-17 to 2018-19)
1. DAE	Total Budget: 775.3 - Development: 308.3 - Operating: 467.0	 Contributed to the production of 107.85 million metric tons of rice, and 15.27 million MT of food grains (wheat+ corn). Trained 2.21 million farmers on the latest technologies, among them 30% were women. Setup 3,390 farmers groups/ farmers clubs to ensure safe food production, processing, and marketing of products. Planted 42.22 million trees to preserve ecological balance.
2. DAM	Total Budget:8.4 - Development:6.1 - Operating:2.2	 Formed 2025 Farmers Marketing Groups (FMGs). Trained 54.92 thousand farmers. Constructed 40 potato storage facilities. Constructed 30 Zero Energy Cool Chambers in four districts of Sylhet division. Installed 60 electronic display boards in 50 districts including Dhaka for online price monitoring.
3. BARC	Total Budget:33.8 - Development:9.2 - Operating:24.6	 Organized 4250 field demonstrations and field days on rice and pulse crops. Arranged training for 180 agri-scientists for human resource development.



Agency	Budget (2016-17 to 2018-19) (US\$ million)	Major Achievements (2016-17 to 2018-19)
		- Delivered short-term training to 4800 agri-scientists, extension officers, and farmers to increase efficiency on research and technology dissemination and raised research standards.
4. BRRI	Total Budget:62.1 - Development:26.4 - Operating:35.7	 Developed and released 20 high-yielding varieties of rice. Innovated solar light trap, rice transplanter and urea applicator, and power weeder. Produced and supplied 418 MT of breeder seeds. Provided training to 20 thousand farmers, agricultural workers, and officials to facilitate technology transfer. Organized 500 field demonstrations on BRRI's innovated agricultural machinery. A total 37 publications on modern paddy cultivation, rice journals, annual research reports, and booklets were published.
5. BARI	Total Budget:120.6 - Development:25.4 - Operating:95.2	 Developed 75 varieties of different crops, 12 of which are drought resistant and 3 are salt tolerant. Developed 64 technologies on soil, fertilizer, and water management, disease and insect pest management, crop intensification with new cropping patterns, post-harvest handling, processing, and transportation of crops. Developed 9 agricultural machinery to mechanized agriculture. Organized 166 seminars, symposiums, and workshops to inform about the developed technologies. A total 3 million seedling/sapling/cutting were produced and distributed.
6. BADC	Total Budget:364.9 - Development:187.7 - Operating:177.2	 Produced and distributed 4210 thousand MT seeds of various crops. Imported 9.73 million MT and distributed 3.22 million MT of non-urea fertilizer. Contributed to the production of 6.02 MT of vegetables and fruits. Constructed 8 cold storage facilities for potato seeds, 14 prefabricated steel storage facilities for fertilizer, and 5 rubber dams. Re-excavated 1209 km of channels, established 209 km of surface irrigation channels, and buried 941 km irrigation channels. Extended irrigation coverage to 67.10 thousand hectares and constructed 1355 various types of irrigation infrastructure.
7. BMDA	Total Budget:64.4 - Development:64.4 - Operating:	 - Around 11500 hectares of land came under controlled irrigation by installing 220 irrigation equipment and activating 239 obsolete deep tube wells and low lift pumps, electrifying 464 irrigation equipment, and by constructing 1376 km of buried pipelines. - Around 17600 hectares of land came under supplementary irrigation, by reexcavating 352.55 km of channels and 63 derelict ponds, excavating 275 dug wells and 49 cross dams, and constructing 1 rubber dam. - Produced 1800 M.T of rice seeds and distributed them to farmers. - Planted 475 000 fruit, medicinal and forest trees.

Source: Bank Staff Compilation Based on MTBF Data

- 20. The flow of expenditures to the sector under the MTBF will continue even after PARTNER, which will ensure the financial sustainability of the government program. Historically, the budget of the MoA has followed an upward trend. In FY 2009-10, the total budget was BDT 60 billion, which increased to BDT 137 billion in FY 2016-17 and to BDT 242 billion in FY 2022-23. The budget for FY 2022-23 is four times greater compared to the budget for FY 2009-10. The total public expenditures for the agriculture sector are determined by the MTBF and are sourced from both development partners and the government's own resources. The investment for PARTNER is well embedded in the MTBF. Past trends suggest that successive MTBFs maintained the priorities in agricultural investments. Increasing the level of investment for the sector in the future is also well prioritized in the ongoing 8th FYP and the Perspective Plan of Bangladesh 2021-2041. Thus, the fiscal sustainability of the program will be maintained even after the closing of the Program.
- 3. Program Economic Evaluation



a. Rationale for Public Provision and Financing

- 21. There is a strong rationale for public provision and financing for PARTNER. Overdependence on rice for food security, low productivity levels, and fast-changing diets require the country to embrace a new phase of transformation for the agriculture sector. The Program will support the GoB in addressing these challenges by improving productivity and promoting crop diversification, while improving food safety along the VC. This will require investments in public goods, such as in R&D, food safety infrastructure, and extension services, areas in which the private sector is not in a strong position and has few incentives to engage. However, through the adoption of adequate policy and regulatory frameworks, the Program will facilitate private investments in areas such as quality seed research, production, and distribution.
- 22. **PARTNER will contribute to a more coordinated approach.** The sector's evolving challenges to provide inclusive growth opportunities, including women and youth, and to attain nutritional security for a growing population—while dealing with climate change impacts—require a coordinated approach. By supporting the implementation of the PoA of NAP, PARTNER will strengthen the overall sector's performance in term of activity planning, coordination of interventions, monitoring program implementation, and tracking results and reporting. Through the establishment of a sector-wide MIS, PARTNER will contribute to evidence-based policy making, and will promote policy and program repurposing when needed to achieve the GoB's sector development goals.

b. PARTNER's GHG Analysis and Economic Impact and Evaluation

- 23. The Program is a net carbon sink compared to the WO/P scenario of -64,314,602 tCO2e emissions over 20 years, and about -3,215,730 tCO2e emissions per year. However, gross emissions are positive, and the project would emit 137,344,329 tCO2e over 20 years. Improved water management in irrigated rice has the largest mitigating effect, with about -95.3 million tCO2 emissions followed by improving management of annual crops and horticulture produces (i.e., net carbon sink of -16.5 million tCO2e emissions compared to without project scenario) and by growing perennials (i.e., about -11.3 million tCO2e emissions). The large carbon sink for crop management is based on the assumptions that 50 percent of land under annual crops is enriched with manure leading to high carbon content. In contrast, conversion of land use from irrigated rice to annual crops and perennials – which disturbs the soil – leads to a net carbon source of 42.8 tCO2e emissions. Changes in aggregated fertilizer use leads to a net carbon source of 16 million tCO2e, as changes in synthetic fertilizer due to changes in land use from irrigated rice to crops and horticulture should lead to a net carbon sink of -5.5 million tCO2e emissions. However, compost/manure is expected to increase by 50 percent, which leads to a net carbon source of 20.3 tCO2e emissions. It should be considered that the positive effect of increasing soil carbon through manure application has already been considered through improved crop management. The use of certain pesticides is likely to increase, leading to a net carbon source of 1.1 tCO2 emissions. Energy use from VC activities has not been included in the analysis.
- 24. Two methodologies were used to evaluate PARTNER's economic impact: SAM simulation, and *ex-ante* economic analysis. Both yielded positive results.
- 25. PARTNER investment will increase Bangladesh GDP by 0.33 percent. The SAM simulation exercise utilized the latest available SAM for Bangladesh (2017 data), which consists of 219 accounts. The simulation exercise injects a lumpsum amount of BDT 71.8 billion (US\$718 million) into the exogeneous investment account for the agricultural sector. For this specific simulation, the GDP multiplier is 1.56, which implies that one million BDT of extra investment in the agricultural sector will lead to 1.56 million BDT of additional GDP. The Program's investment will add 2.2 percentage points to agricultural GDP growth. Other sectors of the



economy will also experience GDP growth, as the agricultural sector has strong forward and backward linkages. More specifically, GDP of the industry and service sectors will increase by 0.07 and 0.08 percent, respectively. Among the expected additional GDP, 80.6 percent will be from the agricultural sector, 7.2 percent from the manufacturing sector, and 12.2 percent from the service sector (Table 3.4).

Table 3.4: PARTNER's	Simulation In	nnact hy N	Aaior Sector
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	GDP 2020-21	Additional GDP	% Δ over GDP of 2020-21	% of additional GDP
Agriculture	4,106,614	90,272	2.20	80.6
Industry	11,761,197	8,050	0.07	7.2
Service	18,110,380	13,693	0.08	12.2
Total	33,978,191	112,015	0.33	100

Source: Based on SAM Multiplier Simulation Results

- 26. PARTNER yields an economic Internal Rate of Return (IRR) of 33 percent and an economic Net Present Value (NPV) of US\$1.902 billion. A 20-year cash flow model is used to assess ex-ante efficiency of the Program's investment. Annual cash flows are estimated as the difference between W/P and WO/P net benefits. The analysis focuses on rice productivity increase and crop diversification, which benefit from the adoption of GAP and more efficient irrigation technologies, increased access to extension services and market information for better on-farm decision making, and increased investment on agricultural research for the development of new HYVs and production packages. It is assumed that PARTNER will increase productivity in 98,932 ha of Boro area, 296,796 ha of Aman area, and 98,932 ha of Aus area. In addition, PARTNER will contribute to convert 494,659 ha of Boro area into non-rice crops (maize, lentil, potato, tomato, eggplant, mango and banana). Detailed crop budgets were constructed using the Bangladesh Integrated Household Survey for 2018-19 to estimate WO/P situation. W/P situation crop budgets were adjusted according to fertilizer use and yield data from the Bangladesh Agricultural Research Council⁴⁶ and the WB "Dynamics of Rural Growth in Bangladesh" study. The Yearbook of Agricultural Statistics 2020 provided information on rice yields per season and seed variety for consistency checkup, and on crop area for project aggregation.
- 27. Placing a monetary value on the GHG mitigation benefits increases the EIRR to 47 percent. As recommended by the World Bank,⁴⁸ the economic analysis of the Program was also conducted with the shadow price of carbon. For the low-price scenario, the analysis assumed a shadow price of carbon of US\$43 per tCO2eq for 2023, reaching US\$65 at the end of the 20-year period. In the case of the high-price scenario, the carbon price started at US\$86 (2023) and reached US\$131 by 2042. Compared to the baseline, the EIRR for the low-price scenario is 14 percentage points higher and, for the high-price scenario, it is almost twice as high. The analysis does not include the effects of value chain activities or job creation initiatives for women and youth.
- 28. Program interventions can help increase annual farm income significantly. Through the promotion and adoption by farmers of high-quality seeds, GAP/IMP/CSA practices, increased mechanization, and a more efficient use of inputs, especially that of fertilizers, crop yields and profitability could increase from three (maize) to twelve folds (eggplant). In the case of Aus rice, which currently shows negative profitability

⁴⁶ Bangladesh Agricultural Research Council. 2018. Fertilizer Recommendation Guide-2018.

⁴⁷ Madhur Gautam and Rashid Faruqee. 2016. Dynamics of Growth in Bangladesh: Sustaining Poverty Reduction. The World Bank.

⁴⁸ Guidance note on shadow price of carbon in economic analysis. November, 2017.



(considering family labor costs), the Program can reverse that situation and make Aus rice production profitable (USD 300/ha). In the case of lentil, even though the NAP PoA states the intention to reconvert 400 000 ha of Boro rice into pulses (lentil, chickpea, and grass pea), it was found that, in economic terms and on average, lentil profitability is lower than that of W/P Boro rice. Thus, during Program implementation, specific technologies for specific regions should be properly assessed in terms of financial and economic profitability. It is worth noting that the model makes conservative assumptions in terms of yield increases and technology adoption rates. Thus, the farm income figures above could be higher.

29. PARTNER is quite robust to sensitivity analysis. Sensitivity analyses were conducted to assess the impact of changes in key parameters such as international prices of rice and fertilizers, and technology adoption rates. The results show that the Program is robust to changes in international rice and fertilizer prices. A 20 percent decline in the international price of rice and non-rice crops simultaneously taking place with a 20 percent increase in international fertilizer prices reduces the EIRR to 24 percent and the ENPV to US\$897 million. However, the Program is sensitive to technology adoption rates: reducing the adoption rate to half the baseline rates (from 15 to 7.5 percent in Year 1, and 70 to 35 percent in Year 5, for example) can significantly reduce the EIRR to 19 percent (which still is 4 percentage points above the discount rate) and ENPV to US\$333 million. Adoption rates used in the baseline are in fact conservative. Al Mamun et.al. (2021)⁴⁹ found that high yielding variety adoption rate has increased over time, reaching 72 percent for Aus, 73.5 percent for Aman, and 98.4 percent for Boro season in 2019-20. Using a discount rate of 10 percent (instead of 15 percent, as suggested by the GoB) yields an ENPV of US\$ 3.280 billion.

ENPV EIRR (US\$ billion) Baseline 33% 1.902 10% discount rate 33% 3.280 With GHG valuation at low shadow prices 47% 3.400 With GHG valuation at high shadow prices 62% 4.891 19% 0.333 50% decline in adoption rates 20% decline in international output prices & 20% increase in international price of fertilizers 24% 0.897

Table 3.5. PARTNER's EIRR and ENPV under various scenarios

30. **PARTNER could yield significant additional returns.** It is worth noting that additional potential net benefits (increased women and youth employment, increased farmer's income due to improved product quality and reduced post-harvest losses) were not considered in the model. Going forward, these potential net benefits could be added to the analysis.

c. World Bank's Added Value

31. Value added of the World Bank's support. As the above results show, PARTNER investments have the potential to generate significant economic benefits and improve farmers' incomes and food and nutrition security in Bangladesh. In addition, the World Bank's support will help in the exchange of new knowledge

⁴⁹ Al Mamun M.A. et.al. 2021. Growth and trend analysis of area, production and yield of rice: A scenario of rice security in Bangladesh. PLoS ONE 16 (12).





based on both its long-term engagement in Bangladesh on agriculture-related issues, as well as its vast global experience in implementing agricultural and rural development programs and projects. That is, World Bank's involvement will help expose the MoA and its agencies to the international experience in agricultural productivity growth, diversification, appropriate-scale mechanization, GAP/IPM/CSA practices, VC integration, and so on. The World Bank has had a partnership with Bangladesh for several years, and can draw on successful lessons learned in World Bank-supported projects in the country such as NATP-2, the Modern Food Storage Facility Project and its additional financing, the Nuton Jibon Livelihood Improvement Project, the Sustainable Coastal & Marine Fisheries Project and the Livestock and Dairy Development Project, including three recently approved operations: the Climate Smart Agriculture and Water Management Project, Bangladesh Meteorological Information System, and the Resilience, Entrepreneurship and Livelihoods Improvement Project. PARTNER will also benefit from the findings and recommendations of the World Bank's analytical work carried out in recent years, such as *Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities, 2020; Climate Smart Agriculture Investment Plan, 2020; Bangladesh Rural Income Diagnostic Study, 2021;* and *Dynamics of Rural Growth Study, 2016*.

4. Technical Risk Rating

- 32. The technical risk of PARTNER is 'Substantial". The project is designed to implement key elements of the GoB's strategy for agriculture development in Bangladesh. Thus, the design is not only comprehensive and supports the country's agricultural production system and its VCs, but it also fits the country's diversified and challenging context. Furthermore, the lending instrument, PforR, is new to the client and it will require significant technical assistance to the IAs to make them familiar with the implementation of a PforR operation. Seven agencies will be responsible for the implementation of the Program, which will demand extraordinary coordination efforts. This risk will be mitigated through: (i) support of consultants and technical assistants to the PCU to support the coordination of all seven agencies; (ii) mainstreaming capacity building within the PAP; and (iii) the establishment of a sound monitoring and reporting system.
- 33. The technical risk of PARTNER's intervention in seed markets will require special attention. A recent assessment of four key areas (seeds, food safety, social safety nets and nutrition)⁵⁰ by the United States Agency for International Development (USAID) identified the following key constraints in the seed market: (i) research institutes are often unable to meet market demand, leading to shortages and sub-optimal use by farmers of saved seed; (ii) institutes do not have incentives to maintain breeder seed germplasm purity; (iii) many farmers use old varieties and many institute-released new varieties are of little interest to farmers; (iv) the GoB continues to furnish rice and other seeds at heavily subsidized prices, making it difficult for the private sector to compete; (v) market surveillance is uneven, with very few agents and inadequate lab capacity; this leads to concerns among farmers about being sold fake or expired seeds; and (vi) regulation can stifle innovation and private sector activity. In addition, during PARTNER's implementation, some sophisticated machineries, lab equipment, and infrastructure will be procured for the research that BRRI and BARI will conduct, but BRRI and BARI scientists may not be able to install or operate such equipment, posing an additional risk for implementation. PARTNER addresses several of the above issues. The Program will train scientists to operate lab equipment. It greatly emphasizes the strengthening of improved seed production and distribution, as well as farmers' access to quality seeds. The Program will also develop a policy framework

⁵⁰ USAID. 2020. Bangladesh Policy and Regulatory Assessment to Inform the New Agricultural Policy Activity.



to foster private sector's participation in the seed system. Additional risk mitigation actions such as improving market surveillance and overall seed quality may need to be undertaken.

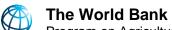
- 34. PARTNER will need to ensure well-functioning extension services. Agricultural extension services both public and private play a critical role in getting farmers to adopt new seeds, use inputs in a way to ensure food safety, and plant diversified crops needed for proper nutrition. The above cited USAID assessment found that (i) less than 5 percent of farmers are visited annually by State agriculture agents; however, when visits did occur and seeds were discussed, farmers found the information useful; (ii) State agents tend to favor larger over smaller farmers in scheduling visits; (iii) women are hardly ever visited; (iv) State extension agents' efficacy is undermined by bifurcated reporting structures (DAE and district/local political heads); (v) GoB's extension agents are not university graduates; and (vi) there is limited formal interaction between GoB and private extension agents. PARTNER will address most issues identified by the USAID assessment, as the Program will strengthen extension service capacity (i.e., training, e-extension, market-led extension), design and operate a digital agricultural extension platform, and foster private sector's participation in extension services. The Program will ensure that women farmers and small farmers have access to extension services. Additional measures to create synergy among State and private sector extension agents, and to prevent State extension agents from being diverted from their role of delivering extension services will be needed.
- 35. PARTNER's intervention in an innovative area such as the provision of digital agricultural services will require several risk-mitigation measures. PARTNER proposes digital agriculture service use cases involving e-vouchers, e-extension, financial services, and market linkage services delivered via the KSC and various applications, using public and private platforms. Risks of delivering digital services to small farmers include (i) not addressing the digital divide in an effective manner, favoring large and medium farmers as smallholders are less attractive clients when it comes to innovations; (ii) not including or appealing to women farmers; (iii) insufficient farmer-centered digital services; (iv) missing out on data governance; and (v) government and public national and international institutions lagging behind the fast-moving digital transformation in the agriculture sector driven by private sector. Mitigation measures that can overcome these risks involve (i) establishing digital building blocks such as farmer registries, digital literacy, improved access to feature/smart phones, and increasing rural connectivity; (ii) adopting global best practices on equitable gender design (e.g., including women in user experience research, sensitizing male heads of households to women using digital agriculture services, designing content catering to women-specific agriculture needs, collecting gender disaggregated data and developing a business case for women inclusion) can help to make services accessible to women farmers; (iii) careful consideration for agile user experience research and service design (design, testing and iteration) will produce evidence-based answers to difficult design questions (e.g., does the Program value proposition resonate with farmers? Will the go to market plan lead to farmer adoption? Are the extension and advisory content or financial services use cases relevant and exciting enough to farmers to lead to behavior change?); (iv) data will need to be governed as a precious asset with a focus on equity and fair distribution of benefits. Promoting open data related to digital agriculture allows to provide a public good that will greatly improve the delivery of digital agriculture services; and (v) public interventions will be needed with measures ranging from improved laws and regulations, awareness building and demonstration of new technologies, rural digital infrastructure, promotion of digital SME/start-ups and human capital development.

Bangladesh(PARTNER) (P176374)



ANNEX 4. (SUMMARY) FIDUCIARY SYSTEMS ASSESSMENT

- 1. The objective of the IFSA is to conclude whether the Program's fiduciary systems provide reasonable assurance that the financing proceeds will be used for intended purposes, with due attention to the principles of economy, efficiency, fit-for-purpose, value for money, integrity, transparency, and fairness. The IFSA comprises separate assessments of the risks and mitigation measures relating to the Program's procurement, FM, governance, and corruption aspects.
- 2. The FM assessment for this program has been prepared and built on country PEFA assessments 2016 and indicative score of on Bangladesh PEFA 2021, implementation updates on the PFM Reform Action Plan (2018-23), and other sector/institution specific IFSAs with due focus on Country PFM System by the World Bank for the SPFMS, PARTNER, Health Sector Program, VAT modernization program, PEDP-4 as well as the assessments for SEDP. It also synthesizes the outcome of consultations held with the key stakeholders on core fiduciary issues and challenges that might have a bearing on the program. The FM systems were assessed to appraise the extent to which the planning, budgeting, accounting, controls, funds flow, financial reporting and auditing systems, and practices provide reasonable assurance on the appropriate use of funds and safeguarding of assets within the existing financial management framework of the country.
- 3. Similarly, the procurement systems have also been assessed to establish the extent to which the arrangements and practices provide a reasonable assurance in support of achievement of the PforR results. In addition, the assessment considered how the country governance systems manage the risks of fraud and corruption and how such risks will be mitigated. The assessment also synthesized consultations held with the key stakeholders on core fiduciary issues and challenges that might have a bearing on the PforR.
- 4. The World Bank's Anti-Corruption Guidelines for PforRs (2016) shall be applicable for the Program. The responsibility for ensuring compliance with the World Bank's ACG, including reporting to the World Bank, rests with the MoA and its subordinate agencies. The borrower's anti-Fraud and Corruption systems were assessed as part of the IFSA in the agriculture sector. The IFSA provides understanding of risks and resulting mitigation measures.
- 5. The five-year program cost is estimated to be US\$1,343 million. The planned contribution from the IDA would be US\$500 million and that of IFAD would be US\$43 million for the PforR. Based on the initial findings of the IFSA, it is concluded that the Program Fiduciary Systems is adequate, given the successful implementation of the fiduciary action plan, as stated in the IFSA, to support the Government to implement the program efficiently, which would provide reasonable assurance that the financing proceeds will be used for intended purposes. However, there are several gaps and weaknesses in the existing country system and Program implementation units that could potentially affect the Program in achieving the overall Program objectives such as delays in preparing Program financial statements, capacity constraint in auditing result based financing, delays in resolution of audit observations, delays in releasing annual budget, lack of professional resources in FM, weak internal audit capacity, delay in procurement process, inappropriate bidding practices



undertaken by the bidders, time over-run and cost over-run during contract implementation, lack of strategic procurement planning, and so on.

6. Based on the assessment and due consultation with DAE, DAM, BARI, BRRI, BADC, BMDA and other stakeholders, a PAP focusing both on risk mitigation as well capacity building was agreed, as shown in Annex 6.



ANNEX 5. SUMMARY ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT

- 1. The MoA of the GoB is preparing the "Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience (PARTNER)" for financing from IDA of the World Bank under a PforR. The Program aims to support a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change in line with the NAP. It also aims at empowering women's role in agriculture and increasing job opportunities for the youth, as well as increasing the volumes of quality and safe produce marketed in the country, crowding in the private sector as much as possible. The objective of the proposed Program is to promote diversification, food safety, entrepreneurship, and resilience in the agrifood systems of Bangladesh. The Program will increase food quality and certification through the adoption of food standards for primary producers and the establishment of accredited testing facilities. The Program will contribute to improving market integration through productive partnerships between producer organizations and off-takers. This will also contribute to the reduction of current substantial post-harvest losses.
- 2. The Program will use the national system for implementation, FM, procurement, E&S safeguards, monitoring and oversight, and reporting arrangements. All Program activities will be integrated in the corresponding line agency for implementation and each IA including BRRI, BARI, BARC, DAE, DAM, BADC, and BMDA will set up an APCU. A PSC will guide Program implementation. The PD heading the PCU at the DAE will lead the overall Program management including overseeing implementation of Program activities, carry out Program management functions, facilitate coordination among participating agencies, and liaise with the World Bank on all Program implementation related aspects.
- 3. The Program operation will support a part of the overall Government program (PoA of NAP). The ESSA provides a comprehensive review of relevant government systems and procedures for addressing E&S issues associated with the Program. The ESSA describes the extent to which the Government's E&S policies, legislation, program procedures, and institutional systems are consistent with the six 'core principles' of the World Bank Guidance⁵¹ on E&S management in PforR operations. The assessment recommends actions to address the gaps and to enhance performance during Program implementation.
- 4. The ESSA has identified potential risks and opportunities and assessed the compatibility of the Program with respect to the core principles. MoA has considerable experience in executing World Bank-financed projects, with demonstrated capacity in managing E&S risk for similar activities. The Program will exclude any activity that may have significant adverse E&S impacts and are sensitive, diverse, or unprecedented.
- 5. Overall E&S Risks of the Program are assessed to be 'Moderate'. The Program activities have no significant and irreversible impacts on environment and the associated risk is rated as 'Moderate'. The construction of infrastructure would be limited to renovation, repair, and modernization of various facilities within the existing complexes housing the IAs, where limited number of labor force would be employed. As such, the risk would be minimal, effects would be localized and could be mitigated in situ by the contractors employed. There would not be any land acquisition and involuntary resettlement, there exists low risks of social discrimination and SEA/SH. Thus, the social risk is also rated as 'Moderate'. An E&S screening was carried out

⁵¹ World Bank Guidance on Program for Results Financing Environmental and Social Systems Assessment (Annex-C)





- to identify E&S risks and impacts with respect to contextual, institutional, capacity, and reputational risks facing the Program.
- 6. The potential investments may include small and medium scale civil and construction works, use of digital technology, pest management using naturally tolerable pesticides/herbicides for HYV and other crops diversification, promoting improved and efficient irrigation facilities, establishment of "Technology Villages", testing laboratories, training, research, market linkage, youth engagement, and piloting motivational incentives. The anticipated E&S impacts are mostly localized and reversible and can be mitigated through proportionate management and mitigation measures. The PIP will be developed at Program commencement and followed also for E&S risks management requirements and procedures (E&S Guidelines) and a subsequent ESMF including ECOP and social management procedures will be developed for the Program at the early stage of implementation. The PIP will be updated when the Program ESMF will be adapted.
- 7. The IAs manage E&S impacts following the national regulatory framework and policies in the regular operations and projects with finance from the Government's own resources. In case of international finance in their projects, they develop and implement project specific ESMPs following the E&S compliance requirements of the international finance institutions to supplement the gaps of the national E&S management system. The involvement of multiple IAs including research organizations with their low capacity to manage E&S risks is noted and would be addressed in the PAP.
- 8. Overall, the ESSA found that the country's E&S policies and legal framework applicable in agriculture sector are largely compatible with the E&S core principles for World Bank PforR finance. However, addressing institutional capacity constraints and gaps within the IAs across a range of ESMS limitations including policy principles and institutional setup, the ESSA recommends several measures under the Program. These measures are summarized as E&S actions to be incorporated in the PAP. Specific recommendations were made to address the identified risks, gaps and needs in the ESSA. These measures for improvement of the ESMS have been discussed with the implementing agencies: MoA, BRRI, BARI, BARC, DAE, DAM, BADC, and BMDA. The following table summarizes the main E&S issues and recommended actions to strengthen E&S systems' performance for the Program:

Objectives and issues	Recommended measures/actions
Environment and social management instruments	There is no corporate ESMS with dedicated staff within MOA and any of its departments, the agricultural universities and the research institutions in Bangladesh. They do not have dedicated budget for E&S management in their regular operations.
	The Program, therefore, requires system enhancement for managing likely associated E&S risks and impacts in compliance with the national regulatory framework supplemented with the World Bank E&S Core Principles for PforR operations. The PIP will include E&S management guidelines and procedures in response to the national E&S system and the E&S Core Principles for PforR (E&S Guideline). The PIP would guide the IAs in managing Program E&S risks and

Objectives and issues	Recommended measures/actions
	issues, and subsequently developing Program ESMF including stakeholders, participation plan, labor management plan (LMP), Pest Management Plan (PMP), and Gender and SEA/SH Prevention Plan (where necessary). The Program ESMF will guide E&S screening, impact assessment and management. When developed, the Program ESMF would be integrated in the E&S Guideline
	with the PIP for better management of E&S risks associated with the Program activities and the IAs would develop ESMPs for their respective operations under the Program following this ESMF.
Systems strengthening for management of environmental and social	The MoA and some of the IAs have prior experience of implementing projects with World Bank investment project financing but none of them have experience in implementation of projects under PforR.
risks and impact at the central level	The MoA will coordinate, and DAE will lead the Program operations requiring oversight of the Program E&S management by employing dedicated staff from within and hiring firms/individual E&S consultants. Therefore, capacity building (through training on E&S management) of the personnel at the PCU at DAE and the hired personnel (1 Environmental Specialist, 1 Social Development Specialist, 1 Communication Specialist and 1 Gender and SEA/SH Specialist) will be required.
	As part of strengthening corporate ESMS within MoA and its various institutions with policy, legal and institutional readiness, DAE will upgrade the Program ESMF into MoA's corporate ESMF, applicable for all its institutions, following international policies and best practices, and national legal framework on E&S risks management including experience from PARTNER and other completed and ongoing projects under MoA. Per requirement of the corporate ESMF developed under the Program, MoA will design and establish a separate "Environmental, Social and Communications Section" (ESCS) with networks of E&S units/desks at all its institutions. These recommendations are summarized as actions to be incorporated in the PAP.
	The MoA ESCS within its fold should be staffed with required E&S and communication experts on regular payroll to focus on environmental and social management and communication matters associated with projects and programs across MoA institutions.
	This being a lengthy administrative process encompassing various ministries, MoA may, for the time being, hire the services of E&S and Communication specialists



Objectives and issues	Recommended measures/actions
	from the Program budget for the interim period. MoA and relevant IAs can also designate/depute some officials to liaise with the Ministry of Environment, Forest, and Climate Change / Ministry of Social Welfare in addition to complying with the E&S guidelines developed for the Program.
Training at macro and micro (IAs, contractor/ subcontractor) level on environmental and social risk and impact mitigation, labor management, SEA/SH risks and incidents, stakeholder engagement, and grievance redress service (GRS) issues	MoA/DAE and other IAs have been providing relevant training to its own staff and contractors. However, field-level experience suggests that gaps exist in the implementation of E&S risks mitigation measures. Therefore, there is a need for continued capacity-building initiatives specifically for the staff engaged in Program supervision at the Division, District, Upazila, Union and Block level including contractors and subcontractors involved with the Program. Adequate budget has to be allocated for this purpose from the Program fund. This activity should also align with the National Integrity Strategy 2012.
Measures to increase accountability for compliance of E&S Core Principles for PforR at the field level	Field-level capability of MoA/IAs suggest that there is need to improve capacity for implementing E&S issues/ESMPs, especially on issues like Occupational Health and Safety (OHS), working condition of workers, stakeholder engagement, risks, and incidents of gender-based violence (GBV) including sexual exploitation and abuse (SEA) and sexual harassment (SH) etc. The following measures are to be adopted: • The E&S compliance requirements and procedures as outlined in the PIP and subsequently in the Program ESMF, reflected in the contractual agreements of the contractors and subcontractors under the Program. • The subcontractors and labor contractors are sensitized about their obligations related to E&S compliance in areas of labor management, restrictions on using Child Labor, resource efficiency, Water and Waste Management, Dust, noise and light suppression, safe disposal of waste petroleum products and lubricants, traffic management, measures to offset GBV, SEA/SH in the workplace and grievance redress mechanism (GRM) concerning the Labor force etc. through training. Adequate budget has to be allocated from Program Fund.



Objectives and issues	Recommended measures/actions					
	Contractors will prepare site specific ESMP (Contractor's ESMP or C-ESMP) following the site-specific ESMP prepared at the design stage or the PIP provisions on E&S management and the Program ESMF (when developed) including PMP, and LMP prepared by the MOA/IAs before the bidding process starts during the project implementation.					
	 Payment to contractors may be tagged with satisfactory compliance of C- ESMP requirements and procedures. 					
	 Daily record of site supervision by the safety officer must be made available at the project sites. This should be a contractual obligation between DAE and the contractors. 					
E&S compliance monitoring and reporting	DAE will engage its dedicated focal persons and the relevant E&S consultants to be hired to ensure E&S compliance monitoring of all the Program activities engaging relevant staff of the partner agencies and will produce Quarterly E&S Monitoring Report (QESMR).					
Child labor, management and monitoring of Labor influx, and SEA/SH	Bangladesh Labor Law puts minimum legal age for employment as 14. MoA and the IAs to ensure that Contractor-developed site-specific ESMP/LMP includes specific clauses and monitoring measures on labor management, child labor restrictions, and minimizing SEA/SH risks. Local community, including local leadership, members from the tribal community (when available) and other stakeholders should be consulted while preparing and updating the ESMPs including labor management procedures.					
	MoA should arrange a strong monitoring system under the Program including engagement of a third-party monitor and creation and operation of a GRM for settlement of labor-related complaints and grievances including SEA/SH. IAs should ensure the following by incorporating these in the contractual documents and through physical monitoring:					
	Construct labor sheds near the work sites so not to adversely affect local communities and their way of living.					
	Undertake mandatory and repeated training and awareness program on LMPs for the workforce at site.					



Objectives and issues	Recommended measures/actions					
	Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites.					
	Take adequate measures for gender-friendly workplace environment at all work sites and at the labor sheds.					
	 Ensure addressing of OHS issues at the work sites inclusive of all workers by gender, age, and ethnicity and ensure availability and use of personal protective equipment. 					
	 Ensure firefighting and first aid facilities including ambulance services and hospitals for quick evacuation in case of worksite accidents (may be mentioned during tender process). 					
	 Display important telephone contacts such as local emergency services in billboards at the work site and labor shed. 					
	 Access and make use of GRM in coordination with the local law enforcing agencies, where required, for any issues of labor including misconduct, illicit behavior, drug abuse and other social crimes etc. 					
Stakeholder Engagement and GRM	The Program activities will follow all-inclusive consultative process, and citizen engagement including grievance response. Meaningful consultation will be conducted with the tribal peoples where Program activities will target them. DAE, DAM and BMDA to undertake consultation and ensure community participation through interpersonal communications, FGDs, and small and large community meetings at Program areas at the identification, planning, design, implementation, and evaluation of site-specific activities. Additionally, MoA may use radio broadcast and other media forms to further disseminate information, whenever required. The PIP should include a detailed guideline to this effect. Recording of grievances need to be ensured at the field and Program level interlinked with the Centralized GRS of the Government of Bangladesh. Since several IAs are involved, individual IAs should share its record and actions on grievances to DAE for final tabulation to share with MoA and the World Bank. DAE, in consultation with MoA may develop and circulate a standard format to this effect. MoA will integrate Program GRM with the centralized GRS promoting its wider access to Program beneficiaries and stakeholders. Necessary budget has to be allocated for this purpose from the Program fund.					



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ANNEX 6. PROGRAM ACTION PLAN

Action Description	Source	DLI#	Responsibility	Timing		Completion Measurement
Establishing and operating Program E&S management system	Environmental and Social Systems		PCU/DAE	Due Date	31-Dec- 2023	E&S Management Framework (ESMF) and other E&S management tools (ESIA, ESMP, Pest Management Plan (PMP), Labor Management Plan (LMP), and Gender & Gender Based Violence (GBV) Prevention Plan) are rolled out and integrated in the E&S PoM.
Strengthening Program E&S management	Environmental and Social Systems		PCU and all IAs	Recurrent	Yearly	Trainings on E&S risk & impact mitigation, labor management, GBV risks & incidents, stakeholder engagement and Grievance Redress Service (GRS) issues are conducted. The subcontractors & labor contractors are trained about E&S compliance.
Development of corporate E&S management systems	Environmental and Social Systems		MoA and all IAs	Due Date	31-Dec- 2023	Corporate ESMS prepared, approved by MoA and operationalized across MoA and its organizations. Measures taken for establishing an Environmental, Social and Communications Unit (ESCU) at MoA/DAE with relevant desks at the IA institutions.



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Facilitating E&S compliance monitoring and reporting	Environmental and Social Systems	DAE/MOA and other IAs	Recurrent	Continuous	Daily record of community engagement, participation and grievance resolution including site supervision issues associated with Program activities available at sites and local offices of the IAs. QESMR and site-specific E&S tools are prepared.
Strengthening of institutional capacity of the Implementation Agencies for data protection	Environmental and Social Systems	DAE/MOA and other IAs	Recurrent	Yearly	Trainings for PCU staff as well as focal person of each Implementing Agency on data protection and individual privacy.
Ensuring efficient budget execution and accurate institutional reporting arrangements	Fiduciary Systems	PCU/DAE and all Als	Due Date	30-Jun-2023	Integrated Budget and Accounting System (iBAS)/IBAS++ is mainstreamed for recording & reporting Program expenditure for all implementing agencies.
Improving timeliness & effectiveness of audits (internal and external)	Fiduciary Systems	МоА	Due Date	29-Dec- 2023	Comptroller and Auditor General (C&AG) is provided with capacity building support; and it submits the Program External Audit Report by March 31st each year. An internal audit modernization plan is developed and implemented.
Strengthening the procurement and financial management capacity of the staff	Fiduciary Systems	PCU	Due Date	29-Dec- 2023	The trainings on FM & procurement for staff is certified. FM operation manual and risk management manual are updated. Staff is trained in



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					FM operations and risk management.
Establishing and operating M&E systems at the Program level	Technical	PCU and all IAs	Due Date	31-Dec- 2023	Develop a comprehensive M&E plan and Manual. Establish well-functioning M&E system. Hire the required staff at PCU and APCU level. Develop reports formats for M&E reports to be generated on monthly, quarterly and annual basis.
Strengthening M&E systems	Other	All Als	Recurrent	Continuous	M&E officer at the PCU to provide capacity building training to staff at APCU level. Field level staff of the Implementing Agencies provided capacity building training, wherever necessary.
Facilitating compliance of M&E as per the M&E manual developed	Other	All Als	Recurrent	Continuous	Regular monitoring on monthly, quarterly and annual basis. Develop reports as per the report formats developed in the manual.

ANNEX 7. IMPLEMENTATION SUPPORT PLAN

Main focus of Implementation Support

Time	Focus	Skills Needed	Resources Estimate	Partner Role
First twelve months	Implementing the PAP; agreeing the private sector leveraging strategy establishing arrangements for credible verification of compliance with the DLIs; enhancing District and national planning and budgetary processes; strengthening the M&E system at various levels.	Legal, financial procurement, operations, M&E technical (capacity building, private sector, fiduciary systems, economics, access to finance, and agriculture)	Two support missions 2 x 11 people x 2 weeks = 42 weeks Total 60 weeks over 12 months	
12-48 months	Reviewing implementation progress; crosschecking linkages between planning, budgeting, and results; providing support in case of disputes relating to DLI verification	Legal, financial procurement, operations, M&E technical (capacity building, private sector, fiduciary systems, economics, access to finance, and agriculture)	Two support missions 4 x 11 people x 2 weeks = 88 weeks Total 88 weeks over 12 months	
Other				

Task Team Skills Mix Requirements for Implementation Support (Template)

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Legal	2	1	
Financial Management Specialist	8	6	
Environmental Specialist			
Procurement Specialist	8	6	
M&E Specialist			
Capacity building Specialist	8	6	
Private sector Specialist	8	6	
Fiduciary systems Specialist	8	6	
Lead Ag economist	8	6	
Access to finance			

Role of Partners in Program Implementation (Template)

Name	Institution/Country	Role
IFAD		Co-Financing



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Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 2: CI Logframe

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department

ANNEX 1. RESULTS FRAMEWORK MATRIX

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal. **Please remove this note before finalizing the document.**

Results Framework

COUNTRY: Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh(PARTNER)

Program Development Objective(s)

The Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and climate resilience in the agri-food systems of Bangladesh.

Program Development Objective Indicators by Objectives/Outcomes

Indicator Name	DLI	Baseline	End Target
Increased Crop Diversification			
Increased area under non-rice cereals, pulses, oilseeds, and horticulture crops (Hectare(Ha))	DLI 3	0.00	200,000.00
Improved Food Safety			
Increased area under fruits and vegetables with GAP certification (Hectare(Ha))	DLI 1	0.00	300,000.00
Increased Entrepreneurships			
Women and youth with entrepreneurship training who are employed or self-employed (Number)	DLI 7	0.00	12,000.00
Share of which women (Percentage)		0.00	60.00



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DLI	Baseline	End Target
DLI 4	0.00	100,000.00
	0.00	500.00
	0.00	500.00
	0.00	99,000.00
		DLI 4 0.00 0.00 0.00



The World Bank

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh(PARTNER) (P176374)

Intermediate Results Indicator by Results Areas

Indicator Name	DLI	Baseline	End Target
Promoting sustainable and nutritious food production			
GAP standards and protocols for fruits and vegetables developed and approved by MoA (Yes/No)		No	Yes
Farmers and certification staff trained in GAP certification (Number)		0.00	1,000,000.00
Share of which women (Percentage)		0.00	40.00
Increased area under high-yielding rice varieties (Hectare(Ha))	DLI 2	0.00	200,000.00
Stress-tolerant and nutrient-dense rice varieties generated (Number)		0.00	5.00
Certified rice seeds produced and marketed through the network (Tons/year)		0.00	5,000.00
Stress-tolerant and nutrient-dense non-rice varieties generated (Number)		0.00	15.00
Certified non-rice seeds produced and marketed through the networks (Tons/year)		0.00	5,000.00
Farmers adopting improved agricultural technology (CRI, Number)		0.00	1,000,000.00
Farmers adopting improved agricultural technology - Female (CRI, Number)		0.00	300,000.00
Farmers adopting improved agricultural technology - male (CRI, Number)		0.00	700,000.00
Increasing Entrepreneurship and Access to Services along the value	ue-cha	ins	
Extension staff, who are trained in e-extension service delivery and digital M&E tools (Number)		0.00	1,500.00
Share of which women (Percentage)		0.00	30.00
Farmers received services through 'Krishak Smart Card' (Number)	DLI 5	0.00	5,000,000.00



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Indicator Name	DLI	Baseline	End Target
Share of which women (Percentage)		0.00	40.00
E-voucher pilot for new input subsidy mechanism implemented in targeted Upazilas (Number)		0.00	15.00
Institutions provide financial services to at least 5,000 farmers (Number)		0.00	20.00
Laboratories receiving accreditation for a testing process (Number)		0.00	10.00
Testing processes for agricultural commodities accredited (Number)	DLI 6	0.00	10.00
MoUs with businesses and financial institutions for on-the-job training and financial support (Number)		0.00	35.00
Women and youth are trained under the project (Number)		0.00	20,000.00
Share of which women (Percentage)		0.00	60.00
Modernizing institutions and policies for agriculture transforma	tion		
Increase in R&D budget for NARS Institutes (Percentage)		0.00	61.00
MoUs and agreements on research collaboration with international research labs and the private sector (Number)	DLI 8	0.00	30.00
Promotional bodies for select commodities established and operational (Number)	DLI 9	0.00	5.00
Stakeholders' organizations of selected value chains strengthened with institutional capacity building support (Number)		0.00	500.00
Agricultural Information Systems improved (Yes/No)	DLI 10	No	Yes
Upazilas with staff equipped in high quality data collection capacity (Number)		0.00	495.00
Agricultural Annual Performance Report prepared and published (Text)		No	Yes
Quarterly Agricultural Policy Note prepared and published (Yes/No)		No	Yes



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Indicator Name	DLI	Baseline	End Target
Share of beneficiaries who received support from the Program who are satisfied (Percentage)		0.00	80.00



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Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 3: Logframe

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Logical Framework

Results Hierarchy	Indicators				ı	leans of Ver	ification	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons receiving services promoted or suppor	ted by the p	roject					
	Males			3000000				
	Females			2000000				
	Young							
	Not Young							
	Non-Indigenous people							
	Total number of persons receiving services			5000000				
	1.b Estimated corresponding total number of hou	seholds me	mbers					
	Household members			5000000				
	1.a Corresponding number of households reache							
	Women-headed households							
	Non-women-headed households							
	Households			1111111				
Project Goal								
Development Objective To promote diversification, food safety, entrepreneurship, and resilience	1.2.2 Households reporting adoption of new/impropractices	oved inputs,	technolo	gies or				
in the agrifood value chains of Bangladesh.	Total number of household members			4500000				
	Households							
	Households			1000000				
Outcome Result Area 1: Sustainable and Nutritious Food Production	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices							
	Total number of household members			4500000				

Results Hierarchy	Indicators				ı	leans of Ver	ification	Assumptions
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Households							
	Households			1000000				
	Increased area of crops promoted by the project							
	Non-rice, pulses, oilseeds and horticulture crops			200000				
	High-yielding rice varieties			200000				
	Increased area under fruits and vegetables with G	SAP certifica	ition					
	Area			300000				
Output Introduction of modern farming technologies and improved crop	1.1.3 Rural producers accessing production input packages	s and/or tec	hnologica	al				
varieties	Males							
	Females							
	Young							
	Total rural producers							
	1.1.4 Persons trained in production practices and	or technolo	gies					
	Total number of persons trained by the project			1000000				
	1.1.2 Farmland under water-related infrastructure	ated						
	Hectares of land			100000				
	Stress-tolerant and nutrient dense varieties development							
	Non-rice crops			15				
	Rice			5				
Outcome	2.2.1 Persons with new jobs/employment opportunities							
Result Area 2: Increasing Entrepreneurship and Access to Services along the value-chains	Males			4800				
	Females			7200				
	Young							
	l				ĺ		l l	

Results Hierarchy	Indicators			leans of Ver	ification	Assumptions		
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Total number of persons with new jobs/employment opportunities			12000				
	1.2.5 Households reporting using rural financial s	ervices						
	Total number of household members			450000				
	Households							
	Households			100000				
Output	2.1.2 Persons trained in income-generating activi	ties or busin	iess mana	agement				
Increased access to services	Males			8000				
	Females			12000				
	Young							
	Persons trained in IGAs or BM (total)			20000				
	1.1.6 Financial service providers supported in del financial products and services to rural areas	1.1.6 Financial service providers supported in delivering outreach strategies, financial products and services to rural areas						
	Service providers			35				
Outcome	SF.2.1 Households satisfied with project-supported	ed services						
Result Area 3: Modernizing Institutions and Policies for Agriculture Transformation	Household members							
	Households (%)			80				
	Households (number)							
	Increase in R&D budget for NARS Institutes							
	Budget Increase			61				
	MoUs and agreements on research collaboration with international research labs and the private sector							
	Number of MOUs			30				
Output	2.1.3 Rural producers' organizations supported							
Coordination and Policy Support	Total size of POs							
	Rural POs supported			500				

Results Hierarchy	Indicators			Means of Verification		ification	Assumptions	
	Name	Baseline	Mid- Term	End Target	Source	Frequency	Responsibility	
	Males							
	Females							
	Young							
	Policy 1 Policy-relevant knowledge products comp	pleted						
	Number			20				
	Policy 2 Functioning multi-stakeholder platforms s	supported						
	Number		·	5				



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Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 4: Integrated Project Risk Matrix (IPRM)

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Substantial	Moderate
Political Commitment	Substantial	Moderate
Governance	High	Substantial
Macroeconomic	Substantial	Moderate
Fragility and Security	Moderate	Low
Sector Strategies and Policies	Moderate	Moderate
Policy alignment	Low	Low
Policy Development and Implementation	Substantial	Moderate
Environment and Climate Context	High	Substantial
Project vulnerability to environmental conditions	High	Substantial
Project vulnerability to climate change impacts	Substantial	Moderate
Project Scope	Substantial	Moderate
Project Relevance	Moderate	Low
Technical Soundness	Substantial	Moderate
Institutional Capacity for Implementation and Sustainability	Moderate	Low
Implementation Arrangements	Moderate	Low
Monitoring and Evaluation Arrangements	Moderate	Low
Project Financial Management	Substantial	Substantial
Project Organization and Staffing	High	Substantial
Project Budgeting	High	Substantial
Project Funds Flow/Disbursement Arrangements	Substantial	Substantia
Project Internal Controls	Substantial	Substantia
Project Accounting and Financial Reporting	High	Substantia
Project External Audit	Substantial	Substantia
Project Procurement	Substantial	Moderate
Legal and Regulatory Framework	Substantial	Moderate
Accountability and Transparency	Substantial	Moderate
Capability in Public Procurement	Substantial	Moderate
Public Procurement Processes	Substantial	Moderate
Environment, Social and Climate Impact	Moderate	Low
Biodiversity Conservation	Moderate	Moderate
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Cultural Heritage		No risk envisaged - not applicable
Indigenous People	Moderate	Low
Labour and Working Conditions	Moderate	Low
Community Health and Safety	Moderate	Low
Physical and Economic Resettlement		No risk envisaged - not applicable
Greenhouse Gas Emissions	Substantial	Low

Risk Category / Subcategory	Inherent risk	Residual risk
Vulnerability of target populations and ecosystems to climate variability and hazards	Moderate	Moderate
Stakeholders	Moderate	Moderate
Stakeholder Engagement/Coordination	Moderate	Moderate
Stakeholder Grievances	Moderate	Moderate
Overall	Substantial	Moderate

Country Context	Substantial	Moderate
Political Commitment	Substantial	Moderate
Risk:	Substantial	Moderate
The country will have its national election held on January 2024 and this might impact the project start up due to the changes made in civil administration and interim government arrangements three months prior to the elections.		
Mitigations:		
Continuous monitoring and implementation support by the ICO and the World Bank on project performance monitoring and reporting. The project DPP is expected to be approved by April 2023 which will minimise the risk of a delayed start up significantly. Even if there is a change in government, the institutional policies and development plans is likely to remain unchanged (National Agricultural Policy, 8th Five Year Plan etc.) which will support a smooth project execution.		
Governance	High	Substantial
Risk:	High	Substantial
Government processes such as the preparation of the DPP, recruitment of key staff are cumbersome and can delay project start-up and implementation.		
Mitigations:		
(i) The ICO and the World Bank teams support the project and implementing agencies with the preparation of the relevant supporting documents for the government's internal processes, including DPP preparation (FAO TA) (ii) IFAD supports counterpart in its dialogue with the Ministry of Finance and planning commission, with regard to the DPP preparation.		
Macroeconomic	Substantial	Moderate

-		
Real GDP growth is expected to slow to 6.1 percent in FY23 as import suppression measures disrupt economic activity. Higher inflation will dampen private consumption growth, following substantial energy price increases. Export growth is expected to slow, as economic conditions in key export markets deteriorate, while rolling blackouts, gas rationing, and rising input costs weigh on manufacturers. A gradual reduction in poverty is expected, declining from 10.4 percent in FY22 to 10.0 percent in FY23. Over the medium term, the balance of payments is projected to return to surplus as import growth moderates. Bangladesh's economy performed well during the COVID-19 pandemic compared to peer countries. Relatively low debt-to GDP provided a fiscal buffer, and a stimulus program protected manufacturing capacity. A robust recovery continued in FY22 as movement restrictions were lifted. Rising commodity prices and a surge in imports in the second half of FY22 resulted in a substantial Balance of Payments (BoP) deficit and accelerating inflation. A series of policy measures to suppress imports and preserve foreign exchange reserves is expected to dampen growth, including electricity cuts and reduced business hours. Addressing longstanding structural	Substantial	Moderate
challenges would help sustain GDP growth over the medium term, including increasing domestic revenues, modernizing the tariff regime, resolving financial sector vulnerabilities, and improving the business climate. Mitigations:		
(i) The programme will significantly focus on strengthening institutional policies and all the DLIs have specific policy level targets to be achieved. (ii) Despite soaring inflation, the government has prioritized agriculture sector to the highest level and ensured uninterrupted supply of inputs. The project will further support this.		
Fragility and Security	Moderate	Low
Risk: Bangladesh is not in the list of the World bank fragile countries but there is subject to natural hazards which is elaborated in the sections below. In terms of security situation is also stable and no threat is envisaged.	Moderate	Low
Mitigations: Regular monitoring and supervision by the IFAD and WB country offices in Bangladesh		
Sector Strategies and Policies	Moderate	Moderate
Policy alignment	Low	Low
Risk: This risk is low considering Bangladesh has finalized its 8th five year plan in December 2020 that outlines the broad development objectives of the country including transformation of the agriculture sector.	Low	Low
Mitigations: (i) The project is actually supporting the National Agriculture Policy - Plan of Action (NAP-POA) and every DLI has actions to support new policy formulation (ii) IFAD has an active participation in the donor coordination group on agriculture that is chaired by the secretary of agriculture and FAO country rep. (iii) Consistent follow-up with the ministry, implementing agencies and PIUs assuring that the priorities of the implementing agencies and the donor agencies (IFAD, World Bank) remain aligned		
Policy Development and Implementation	Substantial	Moderate
Risk: 1. Some policies are outdated especially the ones governing the agricultural sector and food sector	Substantial	Moderate

Mitigations:		
(i) The ICO and World Bank actively participates in the working group to help ministry of agriculture update their policies and sector transformation plan. (ii) IFAD actively contributes to knowledge generation and policy advocacy through UNCT and donor coordination mechanisms.		
(iii) Each DLI includes Policy development activities and milestone to be achieved		
Environment and Climate Context	High	Substantial
Project vulnerability to environmental conditions	High	Substantial
Risk:	High	Substantial
Bangladesh as a whole is highly prone to natural hazards including cyclones, storm surges, floods, landslides, earthquakes, tsunamis, sea-level rise and increasing saltwater intrusion. Therefore the inherent risk for vulnerability to environmental conditions is high.		
Mitigations:		
(i) Detailed mitigation measures are included in the CI's safeguard documents.		
Project vulnerability to climate change impacts	Substantial	Moderate
Risk:	Substantial	Moderate
Key climate change impacts for the project are linked to sea level rise contributing to increasing floods and increasing intrusion of saline seawater in addition to flash flood, riverine floods, cyclone, tidal surge, drought etc. All climate-induced phenomena could have significant effects on agriculture, with increasing salinity and mean temperatures having generally negative effects.		
Mitigations:		
(i) Detailed mitigation measures are included in the CI's safeguard documents		
Project Scope	Substantial	Moderate
Project Relevance	Moderate	Low
Risk:	Moderate	Low
Lack of alignment with national and IFAD priorities might deviate the project objectives and results from the core PDO.		
Mitigations:		
The project is to provide support on NAP-POA implementation The 3 RA and 10 DLIs are fully aligned to the national priorities and also with IFAD's latest COSOP.		
Technical Soundness	Substantial	Moderate
Risk:	Substantial	Moderate
The lending instrument, PforR, is new to the client ministry and it will require significant technical assistance to the ministry to make them familiar with the implementation of a PforR operations. There is also risk of DLI specific targets not being achieved, resulting into not delivering the project's development objectives		

Mitigations:		
The project is designed to implement key elements of the GoB's strategy for agriculture development in Bangladesh. Thus, the design is not only comprehensive and supports the country's agricultural production system and its value chains, but it also fits country's diversified and challenging context. Going forward, technical capacity needs assessment will be conducted, and relevant risk mitigation measures will be incorporated into the Program design and implementation.		
The WB and IFAD Country Office will closely support and guide the project to remain on track and achieve its objectives.		
Institutional Capacity for Implementation and Sustainability	Moderate	Low
Implementation Arrangements	Moderate	Low
Risk:	Substantial	Moderate
Coordination through various institutions under the MoA and weak capacity to implement the respective activities and achieve intended results.		
Mitigations:		
This will be addressed through a PCU with strong leadership. A detailed institutional capacity assessment was undertaken during design to identify capacity building needs for both the ministry and the implementing line agencies. Mitigation measures to the risk associated with institutional and implementation arrangements will be proposed to enhance sustainability of the Program results.		
Risk:	Moderate	Low
The pari-passu arrangement between financing institutes might result into complexity in terms of flow of funds and implementation of activities.		
Mitigations:		
The IFAD financing is blended with the world bank financing across all the DLIs, meaning that there will be no specific activities financed by individual financiers and the flow of funds will be uniform. The same arrangements have been applied in the ongoing NATP-2 project and this has proven to be fully functioning.		
Risk:	Moderate	Low
The selection of the IVA and the timing of the recruitment methodology/ process to validate that the targets are met , represent a high risks for project implementation.		
Mitigations:		
IVA recruitment process as described in PAD		
Monitoring and Evaluation Arrangements	Moderate	Low
Risk:	Moderate	Low
Precedence in Bangladesh for projects with multiple implementing agencies to work in silos. Consequently, PIUs might have different interpretations of indicators. There is also the risk of not having an M&E framework established that would aggregate data from all implementing entities at the PIU level. Failure to disaggregate data on youth and gender may also not give the correct picture of the project reaching its intended target groups.		

Mitigations:		
(i) The IFAD finances SACP project has already developed an M&E system which is being replicated throughout the MOA projects, which provides consistency in data collection and reporting		
(ii) The Independent Verification Agency (IVA) will verify the project's reports on results and provide a detailed report which will be further validated jointly by IFAD and WB		
(iii) An M&E specialist from IFAD participates in the project supervision missions to support the PIU M&E unit on data generation and reporting.		
Project Financial Management	Substantial	Substantial
Project Organization and Staffing	High	Substantial
Risk: The Program will be implemented by government agencies and semi-autonomous bodies of Ministry of Agriculture; DAE, DAM, BARI, BRRI, BARC, BADC, and	High	Substantial
BMDA and is reliant on the use of country systems. The MoA and some of the IAs have prior experience of implementing projects with World Bank and IFAD investment project financing (IPF) but none of them have experience in implementation of projects under PforR.		
Risk of inefficient and ineffective financial management arrangement due to the absence of experienced and qualified procurement and FM staff to meet the needs the program is recognised		
Mitigations:		
(i) Certify training on FM and procurement for staff in all levels. (ii) Prepare an updated FM operation manual and risk management manual. (ii) Mobilize additional financial management support through individual consultants of Project Coordination unit to enhance the capacity for smooth running of the financial management system for the Program.		
Project Budgeting	High	Substantial
Risk:	High	Substantial
The Program budget will be reflected in the Government's budget. The Detailed Project Pro forma of PARTNER in under preparation by the Government. Unique code for the PARTNER will be used by all implementing entities. The inclusion of all Program activities undertaken by DAE, BMDA, BADC, BRRI, BADC, BARI in the unique program code will enable effective monitoring of utilization of Program budget by each Program Implementing Agency. The following risks however are acknowledged: -Risk of inefficient allocation of budget due to lack of timely budget allocation to implementing agencies and inadequate coordination between budgeting processes and procurement planning. -Risk of delayed implementation of Program due to inefficient budget execution and duplicative institutional reporting arrangements		
Mitigations:		
(i) Institute arrangements in implementing agencies to ensure coordination between budget and procurement planning. (ii)Mainstream IBAS for recording and reporting Program expenditure for all implementing agencies. (iii)Ensure on-lending/granting arrangement with the off treasury PIUs (BRRI, BARI, BADC, BARC)		
Project Funds Flow/Disbursement Arrangements	Substantial	Substantial

l Diaks	Cubotantial	Cubatantial
Risk: The government maintains a TSA with the Bangladesh Bank for all central government. Technical information on each DLI with time-wise activities and verification protocol of results will be used to prepare funds allocation against each results area. Fund flow outlined in the Treasury Rules and Supplementary Rules will apply. As the program funds will use the Treasury Model, Funds will be channelled through the Government system of budgetary allocations to the Consolidated Fund and expenditure processed through the existing treasury system of the Government. Budget releases take place no less than two months into a financial year. Budget releases are based on an Annual Operational Plan (AOP) approved by the respective ministries. Generally, funds are released at 4 equal instalments based on the development part of AOP. After releasing funds from the Treasury Single Account to PlUs, the financial delegation as per the financial rules of GoB and the respective PlUs will be followed for the expenses incurred in the PlUs. Each PlU will submit payment requests to the Chief Accounts and Finance Officer of the MOA for processing payments through iBAS++ from the Treasury Single Account directly to the vendors for goods and services for the Program implementation. The activities of the program will not be free from seasonal impacts therefore equal instalments of fund releases may cause difficulty in managing expenses during peak season for works. Mitigations:	Substantial	Substantial
(i) The Finance Unit of implementing agencies and the CAFO of Ministry of Agriculture will consider implementing subordinate office/organizational unit dimensions of BACS under the Program. (2) Deepening the organizational segment from the MOA to the responsible implementing agencies (DAE, BMDA, BRRI, BARI, BADC, BARC and DAM) will enhance managerial accountability of funds allocated to deliver on the specific allocation at the lowest organizational unit level to minimize the risk of delay in distribution of Program funds to the frontline units responsible for the DLIs.		
Project Internal Controls		
Project Internal Controls	Substantial	Substantial
Risk: Internal controls such as segregation of duties, authorization, supervision, budget controls are in place. The iBAS++ has the following in-built segregation of duties controls through its workflow. For all transactions, there are different levels of review and approval: entry, review, approval, activation (for reference data) with permission controlled through roles which are configured as privileges by a super user. The PAO will be responsible for observance and compliance of all relevant financial rules and regulations of the Program through the Program Director as the DDO. To maintain proper control, the PAO will receive regular Program Budget Execution Reports. The capacity of the internal audit function for the Program can be further enhanced. Internal audit units are not effective currently, internal audit activities consist primarily of exposed reviews focused on financial compliance. There is an on-going reform under the Bank finance PforR operation, Strengthening Public Financial Management Program to Enable Service Delivery (SPFMS) to strengthen and transform traditional internal audit function to risk based internal audit.	Substantial Substantial	Substantial Substantial

Project Accounting and Financial Reporting	High	Substantial
Risk:	High	Substantia
The iBAS++, together with the BACS, will be used to prepare the Annual Program Financial Statements. Program expenditure financed by IDA, IFAD and GoB will be channeled through TSA using iBAS for initial recording of expenditure under the unique program code with separate organizational code for each of the agency. There will also be fund code for each source of financing. In addition, as a part of corporate reporting requirement, self-accounting entities will include the Program expenditure of their respective part in the annual financial statement of entity financial statement . The Cash Basis accounting is used in the public sector. There are no initiatives yet to align the cash basis with the IPSAS cash standard to further improve reporting and ensure uniformity with international standards and best practices. As per the Government Financial Regulations (GFR) the spending authority maintains a separate set of financial records mostly on manual bases while IBAS is maintained only at the level of the Accounts Offices. Risk of delays in Preparation of Financial Statement is recognised. Inefficient reconciliation processes between spending units and CAFO of MOA		
Mitigations:		
(i) iBAS++ will ensure timely preparation of Financial Statement for the Program. (ii) It was also agreed with the line ministry that the reconciliation process would be on a fast track to consolidate the FS within 3 months from the end of each FY. (iii) In Addition, there will be monthly reconciliation between PIU and CAFO within seven working days of the following Month. (iv)To facilitate the reconciliation, each PIU will assign a dedicated person to aide day to day accounting and financial reporting.		
Project External Audit	Substantial	Substantial
Risk:	Substantial	Substantial
The PARTNER program audit will be carried out by the Comptroller and Auditor General (C&AG) constitutionally appointed by the President.Of the ten directorates, Foreign Aided Project Audit Directorate (FAPAD) has been mandated to carry out the audit of all donors funded development projects and programs including those having both foreign aid as well as GOB funding together. Moreover, RPA through GOB arrangements, where initially expenditure is made from government treasury against GOB budget provision and then actual expenditure is reimbursed by DPs in government treasury, are also audited by FAPAD because of involvement of both DP's and GOB funding. Currently, OC&AG is undergoing reform, whereby it is moving to an entity audit model by combining revenue and development expenditure in a single financial statement and will be audited by a single audit directorate. Program expenditure will be made using treasury system. A separate set of financial statement will be prepared based on iBAS for the program which will include all the economic codes to be agreed for the program. The independent auditor will pay special attention to the risks of material misstatement of the financial statements due to fraud. There are long pending audit observations from the external audit carried out by the Foreign Aided Project Audit Directorate (FAPAD) for the development projects. Audit observations resolution takes a long time, particularly, on the development projects in all PIUs. In the result-based program approach, the resolution may take even longer because of lack of ownership in fulfilling the requirements to resolve audit issues		
Mitigations:		
(i) Submission of Program External Audit Report by March 31 each year. Necessary capacity building support will be obtained from the government to meet the deadline. Also, the new organization reform at C&AG office will make the respective directorate more focused on the program audits and therefore the delivery seems to be more efficient. (2) Strengthen the audit committee and establish processes and mechanisms for completing annual audit, including procurement audit and resolving audit observations. Constitution of Audit Observation Resolution Committee at the Ministry to meet twice annually with the aim to take appropriate action in resolving (Serious Financial Irregularity) SFI of the program annually.		

Project Procurement	Substantial	Moderate
Legal and Regulatory Framework	Substantial	Moderate
Risk:	Substantial	Moderate
Public procurement is regulated by the Public Procurement Act 2006 with supplemental Public Procurement Rules 2008, e-GP Guideline and Delegation of Financial Power (DOFP). The PPA 2006 has been amended several times, by the Public Procurement (1st and 2nd Amendment) Act 2009, the Public Procurement (Amendment) Act 2010 and the Public Procurement (Amendment) Act 2016.		
Overall Strengths: • Existence of a single legal framework (PPA 2006/PPR 2008) that governs the entire public procurement system across the country. • Existence of a well-functioning nodal procurement policy unit, Central Procurement Technical Unit (CPTU). • CPTU has a widely used website and updated regularly. • A widely used Electronic Government Procurement (e-GP) System managed by CPTU. 62% procurements of the country by value were processed through e-GP in FY19. • e-GP system is self-sustainable (earns revenue). • Existence of comprehensive e-GP Guidelines. • Freely accessible standard tender documents for Goods, Works and Services. • Mandatory provision to pre-disclose eligibility and qualification criteria during procurement process. • Existence of a comprehensive capacity development program. • Existence of well-defined procurement methods. • Open Tendering Method (OTM) is the preferred method and alternative methods need justification. 80% of goods and works contracts were processed through OTM in FY19. • Conflict of interest and impartiality certificate requirements by the Tender Evaluation Committee (TEC) members during tender evaluation. • Presence of a functional complaint redress system with an appeal mechanism. • Existence of separate Public Private Partnership (PPP) Act and Guidelines.		
Overall Weaknesses:		
 Use of price cap in national Open Tendering Method (OTM) for works (rejecting bids more than 10% below or above the estimated cost), in lieu of the intended objective of improved quality and timely completion of works, resulted in market distortion. For example, (i) the average number of participants per procurement package decreasing from 4.2 to 2; (ii) single tenders in OTM packages increasing from 20% to 50% and (iii) large bidders monopolizing the procurement market and small bidders getting marginalized. The Limited Tendering Method (LTM) for national works procurement, targeted to encourage small and new bidders with provisions such as price cap, lottery to determine the winner in the case of tied bids and not requiring any past experience, is not consistent with international good procurement practices, and resulted in failed constructions, delays and cost-overruns. Bidders' interviews revealed that most of the new and small bidders are not getting the intended advantage as the large bidders can also participate in the procurement process. The sanction/debarment process lacks independent review (decision by the head of the procuring agencies is final) except by way of appeal to the judiciary. In addition, absence of detailed procedure/guidelines for debarment causing inconsistent implementation by procuring agencies. Sustainable public procurement has not yet found its way into the public procurement legislation and practices. 		

Mitigations:

Please reference detailed MAPS Assessment on the short, medium and long term mitigation measures proposed below:

- Remove ± 10% cap from Open Tendering Method (NCT) for works
- Undertake following alternative solutions to tackle the issue of abnormally low bids:
- · Incorporate abnormally low bid identification provision based on formula
- · Increase performance guarantee based on formula
- Imposition of milestone based liquidated damage to encourage timely completion of works contracts
- Enhance contract management through electronic contract management of e-GP (with geo tagging)
- · Adopt output and performance-based contracting where feasible
- Remove ± 5% cap and lottery from Limited Tendering Method
- Assess how Limited Tendering Method can be used to give preferential treatment to small and medium sized bidders/enterprises, women-led enterprises and startups
- Include definition of small and medium sized bidders/enterprises, women-led enterprises and startups in PPA/PPR and include this in the bidder registration process
- Update rules to include provisions for promoting SMEs, women-led enterprises and startups
- Introduce provision of annual enlistment for LTM bidders based on qualification/experience
- Early release of bid security of the bidders except the top three bidders
- Create a supplier database with unique identification of bidders and their beneficial owners. Track performance of the suppliers/contractors including specialized groups
- Introduce suppliers/contractors' development program
 Streamline emergency procurement provision including complete delegation of the procurement responsibility to the implementing agencies (i.e., selection of procurement method, approval of bid evaluation report and contract), engage UN agencies as partners, use of request for quotation methods without any thresholds etc.
- Include Quality-Based Selection (QBS) method in the PPA 2006 and PPR2008
- Introduce independent debarment process and provision of temporary suspension by the HOPE
- Prepare detailed guidelines on debarment procedures including protocol for sharing and receiving feedback on fraud and corruption issues from the Anti-Corruption Commission (ACC).
- Publish the consolidated PPA 2006 and PPR 2008 documents in English in the CPTU website for international use.
- Finalize all standard/model procurement documents, as listed in the PPR 2008.
- Finalize Bangla translated versions of the standard documents
- Prepare procurement manual for Goods, Works and Services for all methods of procurement.
- · Develop a contract management manual
- Update e-GP user manual and manual on registration process incorporating recent changes.
- Prepare a policy document with detailed implementation road map for sustainable procurement.
- Include provision of sustainable procurement in the PPA 2006 and PPR 2008.
- Include provision of evaluating bids on the basis of "most advantageous bid" instead of the current "lowest evaluated bid" to facilitate preferential treatment to high quality goods/works including energy efficient/low carbon emitting products, sustainable goods and works.
- Update the relevant standard tender documents with provisions of sustainable procurement including maintaining environmental and social safeguard during construction.
- Prepare guidance note on sustainable procurement explaining applicability and procedure of using sustainability considerations in procurement

Accountability and Transparency Substantial Moderate

Risk:	Substantial	Moderate
Pillar IV MAPS Assessment takes aspects of the procurement system and governance environment to ensure that they are defined and structured to contribute to accountability, integrity and transparency.		
Overall Strengths Reasonably transparent process is followed in formulation of procurement legislation with consultation with large procuring agencies. Adequate access to information in the procurement process. Public Financial Management (PFM) system is governed by a set of strong legislative instruments with OCAG as the supreme audit organization. Financial auditing carried out regularly which covers procurement. Comprehensive procurement audit manual. A strong anticorruption system is in place. Presence of ethical standard in audits and public procurement (code of ethics) and national integrity strategy. CPTU has developed and soft launched a citizen portal to disseminate procurement and contract management data following the Open Contracting Data Standard (OCDS)		
Overall Weaknesses: • Some transparency weaknesses - bidders not widely included in public consultation for legislation change. • Audit system is mostly external. o Internal control system is virtually absent. o accumulation of non-resolved observations. o Procurement performance audits not yet taking place. • Procurement complaint system is lengthy and takes 2-3 months' time to exhaust the entire process. o No mechanism for keeping review panel members up to date. o Complaint tracking mechanism not yet functional for e-GP • Inadequate monitoring of integrity in public procurement o no national statistics available on corrupt activities specific to procurement o no recognized role of civil society		

Mitigations:		
Please reference detailed MAPS Assessment on the short, medium and long term mitigation measures proposed		
 Use government tenderers' forums for wide consultation during amendment of procurement laws/guidelines Launch citizen portal to share procurement and contract implementation data with the citizens following OCDS including facilities for data analytics based on key performance indicators. Include citizen engagement provision in PPA2006/PPR2008 Introduce standardized mechanism for internal control with the development of internal audit manual and module for training Introduce electronic mechanism for capturing audit data and resolution status Carry out specialized procurement audits/ procurement performance audit especially in large agencies based on periodic risk assessment Scale-up procurement training for the auditors with appropriate course content Enforce the requirement of procurement post reviews through enhanced monitoring Maintain an online data base for review panel cases including implementation status and decisions Set a timeline to publish review panel decisions in the CPTU website Arrange regular learning/discussion sessions on procurement issues for review panel members Enhance e-GP's complaint handling module with facilities to track complaints and their resolution status Reduce 4-tier complaint handling process to 2-tier process consisting review only at the PE and review panel levels Introduce standstill period for large value/international procurements Introduce integrity module in e-GP (automatic identification of red flags during tender evaluation) Include comprehensive module on integrity and ethical aspects of procurement including identification of fraud and corruption red flags in the standard procurement training materials of CPTU Include provision to earmark corruption related to public procurement in ACC database Review the possibility of giving specific role to CSOs in public procurement 		
Capability in Public Procurement	Substantial	Moderate

Risk:	Substantial	Moderate
Bangladesh has a well-functioning nodal procurement policy agency, the Central Procurement Technical Unit (CPTU). CPTU was established in 2002 under the Implementation Monitoring and Evaluation Division (IMED) of the Ministry of Planning (MOP) to carry out procurement reform activities and regulate and monitor the country's public procurement functions. It is planned to be converted into an independent government agency to be known as the 'Bangladesh Public Procurement Authority (BPPA)' to facilitate enhanced autonomy in executing its functions. It will be done through a separate act, Bangladesh Public Procurement Authority Act. The act has been drafted and widely consulted and now at the final stage of placement in the parliament for approval.		
Overall Strengths: CPTU has clear mandate to carry out public procurement reform and implementation of the reform agenda (being transformed to Authority). Large procuring agencies are well organized, procurement functions are largely decentralized, and procuring entities' functions are legally defined. An institutionalized procurement capacity building program is in place. e-GP generates KPI based procurement reports. The medium term rolling budgetary framework (MTBF) provides indicative budget for procurement organizations for 3 years which helps agencies to plan their procurement. An integrated budget and accounting system (iBAS ++) system in place and helps budget control and management. Average days for payment to the contractors is mostly within acceptable limit. (Survey result: 77% responded bidders received payment within 30 days of bill submission) CPTU has recently developed and soft launched a citizen portal to disseminate procurement and contract management data following the Open Contracting Data Standard (OCDS). The portal has facilities for data analytics based on key performance indicators.		
Overall Weaknesses: CPTU is constrained by its capacity in terms of legal structure, autonomy in decision making, limited staffing, and inadequate analytical and research capability. It largely depends on external experts and outsourced firms which is inadequate to regulate and monitor public procurement for more than 1300 organizations Procurement data analytics not systematically used for policy formulation. Absence of data capture through open data format. Proper integration of public procurement into the financial management system yet to take place. e-GP system does not yet have an interface with the iBAS++ system resulting in disconnect between procurement value with the budget and real expenditure. Procurement performance is not generally part of results agreement of the Procuring Entities/Agencies/Ministries and therefore does not contribute to career advancement. Less recognition of 'procurement' as a professional service. Legal provision on advance procurement planning is absent, though practiced by some PEs, but feel discouraged.		

Mitigations:		
Please reference detailed MAPS Assessment on the short, medium and long term mitigation measures proposed		
Connect e-GP with iBAS++ to facilitate – (i) real time capturing of budget utilization, procurement commitment and procurement expenditure; (ii) monitoring and tracking of payment		
Ensure generation of reports on payment delay (at national/agency/project/PE level) from the iBAS++ system		
monitor the regular payment of bill to minimize the gap between submission of bill until the final payment.		
Enhance existing e-GP procurement planning module to upload annual procurement plan covering e-GP and non e-GP procurements with updating functionality		
Insert provision in the e-GP Guidelines/PPR 2008 to ensure mandatory uploading of all procurement packages in e-GP procurement plan of a PE or project as applicable.		
Include advance procurement procedure in the procurement legislation Include provision in the legislation for mid-term strategic procurement plan Reduce the time gap between national budget and availability of the budget at PE level		
Prioritize formation of proposed Bangladesh Public Procurement Authority (BPPA)		
Develop in-house institutional and technical capacity of BPPA (with a set of qualified, experienced and adequate number of trained officials) and gradual		
lessening of dependency on external support Publish compilation of interpretations and clarifications provided by CPTU in official gazette		
Increase procurement approval thresholds at the agency and ministry level with enhanced accountability mechanism		
Monitor compliance of the detailed procurement timeline given in PPR2008 Adopt framework agreements at the level of the organization or ministry		
Develop e-GP module for framework agreement and electronic catalogues/ e-market place		
 Develop guideline on using framework agreement Include provision of electronic catalogue and e-market place in PPR2008/PPA2006 Enhance the existing training program to include provision for more bidders' training 		
Launch online training module Prepare strategic plan for procurement data management and analytics		
Develop necessary data analytics and report generating provisions in e-GP including red flags		
Prioritize implementation of 4 tier-based procurement competency and certification framework		
Include procurement performance as an indicator in the performance agreement for the ministry, agency and procuring entities		
Create a centralized procurement body at the central or regional level to procure commonly required items		
Public Procurement Processes	Substantial	Moderate

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Risk:	Substantial	Moderate
Public procurement in Bangladesh is now well established but remains mostly compliance based. The legal and regulatory framework is in place, there is an established regulator (CPTU) and a well performing e-GP system which is growing rapidly. Moreover, there is an extensive capacity development program. However, the emphasis has been given mainly on building this system and ensuring compliance with the essential requirements of the framework. There is scope to elevate the current system into a performance or output based system based on strategic vision and value for money consideration.		
Overall Strengths: • Availability of an array of procurement methods including multi-stage procedures (pre-qualification, two stage tendering method) for large and complex procurement. • 62% procurements of the country by value were processed through e-GP in FY19.		
 Procurement lead time (invitation to contract signing) for all tenders decreased by 28% - from 86.7 days (FY12) to 62.2 days (FY19). % share of awarded bids within original bid validity period increased to 90%. % share of rejected bids decreased from 8% (FY12) to 3% (FY19). Private sector is vibrant and competitive. Citizen engagement in contract implementation monitoring is happening in 48 sub-districts with positive feedback. 		
Overall Weaknesses: • 70% of contracts not completed on time - causing delay, cost overruns. • Absence of strategic procurement planning and analysis resulting in higher procurement cost and lower procurement performance. (e.g., too many small procurement packages for recurring items). • Procurement decision approval time for high value contracts (more than US\$ 6 million) is still high and a major source of delay for project implementation • Limited interaction with bidders: information and dialogue failures		
Mitigations:		
Please reference detailed MAPS Assessment on the short, medium and long term mitigation measures proposed		
Roll out newly developed electronic contract management (e-CMS) module of e-GP and monitor contract management performance Scale up citizen monitoring of contract implementation Undertake capacity development program on contract management and e-CMS including focused training on works contract management Include legal provision for strategic procurement analysis and planning at the organization/sectoral level based on spend analysis, need analysis and market analysis to determine appropriate procurement size and method of procurement. Include legal provision for mandatory market analysis for high value and complex procurements before initiating the procurement process to better understand the market composition, qualification of the bidders and specifications of the product Prioritize formation of Bangladesh government tenderers' forum to facilitate regular interactions and dialogues with the bidding communities in a systematic way Regularly hold dialogues with bidders to let them know about the changes in the legal provision and receive their feedbacks Carry out regular online bidder surveys and opinion polls on specific topics Carry out sector analysis and engagement based on e-GP data		
Environment, Social and Climate Impact	Moderate	Low
Biodiversity Conservation	Moderate	Moderate
Risk:	Moderate	Moderate
<u> </u>		

Mitigations:		
(i) Encourage the use of local/indigenous varieties. (ii) Promote crop rotation and climate tolerant varieties. (iii) Protect forests and wetlands that are critical habitats for endangered species. (iv) Prohibit introduction of exotic species.		
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Risk: Project interventions could lead to increased waste water discharge into streams	Substantial	Moderate
and pollution from small-scale agriculture.		
Mitigations:		
The Cl's safeguard policies contains detailed measures on protection against pollution.		
Cultural Heritage		No risk envisaged - not applicable
No Risk envisaged.		
Indigenous People	Moderate	Low
Risk:	Moderate	Low
Around 45 indigenous communities are present in Bangladesh most of them living in the Chittagong Hill Tracts, greater Mymensingh, greater Rajshahi, greater Sylhet, Patuakhali and Barguna. IPs are part of the vulnerable population in the country, the program will deploy measures to ensure that they are well represented in program-related decision making, that negative impact is avoided and that benefits also reach these groups		
Mitigations:		
(i) There are no constrains for IPs to participate in project interventions and former projects by the implementing partner have equally targeted IPs. (ii) Project interventions are expected to result in increased incomes, increased food security and improved nutrition for all beneficiaries including IPs.		
Labour and Working Conditions	Moderate	Low
Risk:	Moderate	Low
Unsafe and unhealthy working conditions could occur in the farms and agricultural activities which are either directly or indirectly supported by the project. However, this risk is considerate moderate as the risks are small and site specific.		
Mitigations:		
(i) Site specific health and safety guidelines will be developed based on project interventions.		
Community Health and Safety	Moderate	Low
Risk:	Moderate	Low
There are moderate risks around rural communities related to agricultural development, in particular relating to the use of agrochemicals and the consumption of unsafe food. The project will however be aimed at reducing the use of those agrochemicals and ensuring their proper handling, as well as work on safe food production, thereby reducing the residual risk.		

Mitigations:		
(i) Adequate roll out of health and safety mechanisms. (ii) Build awareness among project beneficiaries on the importance of health and safety.		
Physical and Economic Resettlement		No risk envisaged - not applicable
No risk envisaged.		
Greenhouse Gas Emissions	Substantial	Low
Risk:	Substantial	Low
potential and might alsohave significant potential for greenhouse gas emissions (e.g. beef, poultry, dairy, goats and rice). The program however includes measures to reduce emissions. Through those measures, the program is (by World Bank calculations) expected to be a net carbon sink.		
Mitigations:		
(i) The ICO and the World Bank closely monitor and review the project's value chain activities and provide regular guidance and feedback on the potential opportunities to reduce green house gas emissions		
Vulnerability of target populations and ecosystems to climate variability and hazards	Moderate	Moderate
Risk:	Moderate	Moderate
Bangladesh overall has a high exposure and vulnerability to climate change. The project initiatives might get impacted by extreme climate events or natural hazards as the project areas are particularly vulnerable to tropical cyclones and other climatic incidents.		
Mitigations:		
The project is promoting climate smart agriculture and climate adaptation more broadly, including agri insurance to safeguard the assets as well as economic stability of the beneficiaries in the event of climatic incidents.		
Stakeholders	Moderate	Moderate
Stakeholder Engagement/Coordination	Moderate	Moderate
Risk:	Moderate	Moderate
Lack of proper stakeholder engagement/coordination may result into reduced ownership and underachievement of targets during the project life cycle.		
Mitigations:		
The implementing agencies have a strong foot hold in the project areas and this can be leveraged to build multi dimensional stakeholder engagement and synergy.		
Stakeholder Grievances	Moderate	Moderate
Risk:	Moderate	Moderate
Although the implementing ministry is familiar with the grievance redress mechanisms, the risk is moderate as a new mechanism needs to be established.		
Mitigations:		
The CI has the capacity and expertise to support with GRM.		



Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 5: CI Environmental safeguards review

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department

SECAP Gap Analysis: PARTNER Bangladesh

Introduction

- 1. This SECAP Review Note / Gap Analysis reviews a proposed program in Bangladesh, the Program on Agricultural and Rural Transformation for Nutrition, Employment, and Resilience (PARTNER, or "the program" in this document), for its consistency with SECAP requirements. The project is led by the World Bank (WB), where IFAD is proposed as co-financier.
- 2. This Review Note / Gap Analysis is carried out as a desk study based on the available project design documentation from the World Bank, the applicable World Bank policies and guidelines related to environmental and social assessment, IFAD SECAP 2021 edition volumes I & II and occasional other public data sources as and when referenced.

I. General

A. Application of IFAD SECAP to PARTNER

- 3. The SECAP 2021 Edition states that "when projects are jointly financed with other bilateral or multilateral funding partners, IFAD may agree to apply these parties' environmental, social and climate standards, requirements, processes, rules and policies, provided that they are equivalent to IFAD's and will enable the project to achieve objectives consistent with IFAD's standards".
- 4. "In cases where IFAD is not the initiating institution, IFAD will seek to cooperate with the initiating institution and will agree in writing on a common approach to project assessment, management and monitoring of environmental, social and climate impacts, grievance redress and accountability. (...) Where IFAD support is sought for projects that have already conducted Environmental and Social Impact Assessments, resettlement frameworks or related assessments, or received national permits, IFAD will conduct a SECAP-aligned gap analysis to identify whether additional studies, audits, environmental and social documentation, or mitigation measures are required to meet SECAP requirements. (...) When SECAP requirements differ from the environmental and social requirements of the borrower /recipient/partner or other co-financiers, IFAD will collaborate with the borrower/recipient/partner and other co-financiers and agree in writing on measures to ensure full compliance with SECAP requirements."
- 5. PARTNER is based on a results-based lending instrument under the World Bank's Program for Results (PforR). Programs under PforR do not set up project structures, but work through existing institutions and processes, where disbursement is conditioned on Disbursement-Linked Indicators (DLIs). It should be noted that the World Bank's Environmental and Social Framework does not apply to this PforR financing instrument, only for investment project financing. For PforR programs, the World Bank has separate guidance which requires the preparation of an Environmental and Social Systems Assessment (ESSA)¹. The ESSA for PARTNER, as prepared by the World Bank, is annexed to this SECAP Review Note.
- 6. The ESSA provides a comprehensive review of relevant government systems and procedures for addressing environmental and social (E&S) issues associated with the Program. The ESSA describes the extent to which the Government's E&S policies, legislation, program procedures, and institutional systems are consistent with the six 'core principles' of the World Bank Guidance on PforR ESSA and recommends actions to address the gaps and to enhance performance during Program implementation. The ESSA is prepared by a World Bank team and is <u>not</u> the same as an Environmental and Social Management Framework (ESMF), which is a document prepared and owned by the borrower. In fact, the ESSA will identify environmental and social management measures that the borrower needs to undertake to

¹ World Bank (2020). Bank Guidance: Program-for-Results Financing Environmental and Social Systems Assessment.

- ensure eligibility for PforR financing which in the case of PARTNER includes, amongst others, the preparation of an ESMF (during program implementation).
- 7. IFAD does not have a similar instrument for results-based lending as PforR, and SECAP does not propose a separate treatment of co-financed programs using such results-based financing instruments. There is no equivalent to the PforR ESSA in SECAP. To nevertheless ensure the SECAP objective of "enabling the project to achieve objectives consistent with IFAD's standards", the following approach is taken: (i) reviewing the World Bank's PforR policy and associated guidelines and mapping these to the SECAP; (ii) reviewing the PARTNER ESSA document and suggested contents of the proposed ESMF, and highlighting preliminary gaps that should be addressed in preparing the ESMF following the SECAP Standards.

B. World Bank PforR - Environmental & social management overview

8. As mentioned above, the applicable World Bank policy is the Bank Policy on Program for Results Financing². The World Bank requires a comprehensive screening of potential environmental and social effects at concept note stage. At this stage, activities that "are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people" are determined as not eligible for financing. Specifically, the exclusion criteria involves the following (regardless of the capacity of the Borrower to manage environmental and social risks):

PforR exclusion criteria	Corresponding SECAP element / standard
Significant conversion or degradation of critical natural habitats or critical cultural heritage sites;	Standard 1, Biodiversity conservation
Air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems;	Standard 2, Resource efficiency and pollution prevention
Workplace conditions that expose workers to significant risks to health and personal safety;	Standard 5, Labour and working conditions
	Standard 6, Community health and safety
Land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions;	Standard 7, physical and economic resettlement
Large-scale changes in land use or access to land and/or natural resources;	Standard 1, Biodiversity conservation
Adverse E&S impacts covering large geographical areas, including transboundary impacts, or global impacts such as greenhouse gas (GHG) emissions;	Standard 2, Resource efficiency and pollution prevention
Significant cumulative, induced, or indirect impacts;	General requirement
Activities that involve the use of forced or child labor;	IFAD Environmental and Social Exclusion List;
	Standard 1, Biodiversity conservation
Marginalization of, discrimination against, or conflict within or among, social (including ethnic and racial) groups;	Standard 4, Indigenous peoples

² See https://ppfdocuments.azureedge.net/665d18b2-d86b-441d-aeba-c16931f3936a.pdf

Activities that would (a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (b) cause relocation of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities from land and natural resources that are subject to traditional ownership or under customary use or occupation; or (c) have significant impacts on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities' cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected communities.

9. After screening and in conjunction with the preparation of the PAD, the design team starts preparing the ESSA. The PforR policy lists six core principles for environmental and social management, which are further detailed in a Guidance Note on carrying out an ESSA for PforR³. These principles and operational guidance are mapped against corresponding SECAP elements and standards in the table below.

PforR Core principle	WB guidance - program requirements	Corresponding SECAP element / Standard
Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in the program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects	 Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the Program level. Incorporate recognized elements of environmental and social assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (c) explicit assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress measures. 	 General procedural requirements Grievance redress mechanisms Stakeholder consultation Disclosure of information
Environmental and social management procedures and processes are designed to avoid, minimize, and mitigate against adverse impacts on natural habitats and physical cultural	 Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas. Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation 	 Standard 1, Biodiversity conservation Standard 2, Resource efficiency and pollution prevention Standard 3, Cultural heritage

³ See https://thedocs.worldbank.org/en/doc/946651534193735629-0290022012/original/PforRInternalGuidanceNotes.pdf

resources resulting from the program.	of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities. Takes into account potential adverse impacts on physical cultural property and, as warranted, provides adequate measures to avoid, minimize, or mitigate such effects.	
Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.	 Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed. Promotes the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; and promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions. Includes measures to avoid, minimize, 	 Standard 5, Labour and working conditions Standard 6, Community health and safety Standard 9, Climate change
	or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.	
Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.	 Avoids or minimizes land acquisition and related adverse impacts; Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy; Provides compensation sufficient to 	Standard 7, physical and economic resettlement
	purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access; Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-	

	generating opportunity (e.g., loss of crop production or employment); and Restores or replaces public infrastructure and community services that may be adversely affected.	
Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups.	 Undertakes free, prior, and informed consultations if Indigenous Peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the program. 	Standard 4, Indigenous peoples
	Ensures that Indigenous Peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples.	
	Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to program benefits.	
Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.	Considers conflict risks, including distributional equity and cultural sensitivities.	

10. From the above summary, it can be observed that the PforR exclusion list at concept note stage and the environmental and social principles correspond with all the applicable SECAP standards, except for standard 8 on financial intermediaries. While the PforR principles and associated guidelines have limited detail compared to the SECAP, the actual implementation of these guidelines by the program design team frequently involves referencing best practices of similar nature to SECAP. The actual difference in detail of program design documents is therefore limited.

C. Program summary

- 11. The PARTNER Program aims at supporting a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change. PARTNER would support the implementation of the Plan of Action (PoA) of National Agriculture Policy (NAP) 2018 that support GoB's vision and objectives of achieving a safe, profitable agriculture and sustainable food and nutrition security.
- 12. **Geographic targeting.** The program area encompasses whole of Bangladesh.
- 13. **Timeline.** The proposed PARTNER program will be implemented over the period of 2023-2028.
- 14. **Costs and funding.** The total program cost is USD 1,343 Million, of which USD 800 Million funded by the GoB, USD 500 Million funded by World Bank (IDA) and USD 43 Million funded by IFAD.
- 15. **Implementing partners.** The proposed PARTNER program will be implemented by the Ministry of Agriculture and its subordinate agencies, including the Bangladesh Rice Research Institute (BRRI), the Bangladesh Agriculture Research Institute (BARI), the Bangladesh Agriculture

- Research Council (BARC), the Department of Agricultural Extension (DAE), the Department of Agricultural Marketing (DAM), the Bangladesh Agriculture Development Corporation (BADC) and the Bangladesh Multi-Purpose Development Authority (BMDA).
- 16. **Development objective, result areas and disbursement-linked indicators.** The PARTNER Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and resilience in the agrifood value chains of Bangladesh.
- 17. Result Area 1: Promoting Sustainable and Nutritious Food Production. PARTNER will aim at increasing productivity of all key crops such as cereals, pulses, fruits and vegetables and spices, promoting agricultural diversification and enhancing on farm food safety and build resilience in the sector. It will promote productivity gains in rice in order to ensure self-sufficiency and increasing land availability seasonally or permanently for other crops with a high market potential. This operation will help reform government support to diversification, critical inputs, specialized agriculture, modernizing the extension system and helping farmers to adopt cultivation practices that will build resilience in the sector through adoption of climate smart approaches that will build adaptation and mitigation measures to climate change. Under this Results Area, there are four DLIs:
 - (a) DLI #1 Development, rollout, and adoption of GAP standards in fruit and vegetable production (US\$ 60 million).
 - (b) DLI #2 Development and adoption of High Yielding Rice Varieties (US\$55 million).
 - (c) DLI #3 Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops (US\$65 million).
 - (d) DLI #4 Adoption of efficient irrigation technologies (US\$60 million).
- 18. Result Area 2: Increasing Entrepreneurship and Access to Services along the value-chains. PARTNER will aim at improving the income of farmers and other value chain actors by supporting programs that aim to reduce the cost of cultivation, help with the reform of the food safety system by strengthening the national testing laboratories, and promote access to better markets. It will also aim at improving working conditions of female farmers and promote an active participation of the women and youth as agents of change by providing them with appropriate skills that enable their retention on the job market and or creating own higher value jobs in the agriculture value chains. Under this RA there are three DLIs:
 - (a) DLI #5 Expansion of digital agricultural services provision through 'Krishak Smart Card' (US\$70 million).
 - (b) DLI #6 Promotion of the accreditation of seed certification and food safety testing processes (US\$40 million).
 - (c) DLI #7 Promotion of Ag entrepreneurship for youth and women (US\$43 million).
- 19. **Result Area 3: Modernizing Institutions and Policies for Agriculture Transformation.**PARTNER will aim to reform the agricultural research, education and extension system and improve the efficiency, effectiveness, coordination and information management of agricultural policies and programs. There are three DLIs under this RA.
 - (a) DLI #8 R&D activities for new technologies and innovations increased along with an operational evaluation system for NARS institutes (US\$100 million).
 - (b) DLI #9 Establishment and operationalization of value chain promotional bodies for select commodities (US\$30 million).
 - (c) DLI #10 Improvement of quality information system (agricultural statistics and market research services incl. foreign markets) (US\$20 million).

D. Situational and institutional analysis

- 20. **General situational and institutional analysis**. Given the national scope of the PARTNER program and its broad thematic coverage in the agricultural sector, reference is made to the recently completed COSOP SECAP Background Study when it comes to the general situational and institutional analysis, as well as the World Bank-prepared ESSA (Annex 1).
- 21. **Specific program impacts.** The following table summarizes the most important potential negative as well as expected positive impacts, organized by SECAP Standard.

SECAP Standard	Potential negative impact	Expected positive impact
1. Biodiversity	 Reduced biodiversity through introduction of high-yielding varieties Algae blooms due to eutrophication, leading to reduced aquatic biodiversity 	Improved soil health through INM / IPM
2. Resource efficiency and pollution prevention	 Depletion of groundwater resources through intensive cropping Contamination of soil and water bodies due to runoff Salinization Soil nutrient depletion Spreading of weeds and pathogens through uncleansed equipment 	Higher water use efficiency through SRI Lower methane emissions Lower emissions through promotion of renewable energy Less methane emissions from decay of wasted product
3. Cultural heritage	•	•
4. Indigenous people	•	Enhanced economic opportunities due to growth of sector
5. Labour and working conditions	 Occupational health and safety risks associated with processing and construction Negative health impacts due to contact with pesticide containers Risk of child labour 	 Reduced incidents as a result of training, promotion of good practices and investment into technologies Enhanced access to jobs for unskilled people
6. Community health and safety	 Arsenic contamination of irrigated food High chemical residues in food Influx of temporary workers causing social friction, increased STD transmission, GBV 	Increased food safety through GAP and IPM Increased dietary diversity

22. **Institutional capacity specific to PARTNER implementation.** The ESSA includes a comprehensive analysis of the institutions involved in the proposed PARTNER program, and their capacity to manage environmental and social risks. Generally it found that laws, policies and instruments are adequate, but that enforcement needs to be strengthened. It notes that the lead implementing agency (Ministry of Agriculture) as well as most of the agencies involved, have experience in setting up project-level environmental and social management systems, but that an overall 'corporate' environmental and social management system is missing.

E. Environmental and social category

23. The World Bank has rated the overall Environmental and Social Risk as 'moderate', which is equally the IFAD categorization following the SECAP Risk Screening. Although the number of activity sites are expected to be many, the potential negative impacts on the human population and/or the environment are expected to be limited and risks and impacts can be easily mitigated. Risks are also likely to be predictable and expected to be temporary and/or reversible in nature. Impacts are expected to be site-specific, and without likelihood of disperse beyond the actual footprint. The World Bank categorization may be adjusted after program appraisal. The combination of the currently prepared ESSA and the to be prepared ESMF, align with IFAD requirements for this environmental and social risk category.

F. Climate risk category

24. The World Bank does not assign a climate risk category. From an IFAD perspective and following IFAD's climate risk screening tool, the climate risk category would be 'substantial'. This is a result of high risks scores from the perspective of hazard risks, exposure risk and sensitivity risk. The PARTNER program includes a strong focus on climate change adaptation, informed by various technical studies that the World Bank has commissioned over the past years. This would be in line with the SECAP requirement on a Targeted Adaptation Assessment. The program furthermore includes various outcomes and proposed activities that contribute towards climate change adaptation and climate resilience more broadly, such as climate smart agriculture.

II. Issues and recommendations

A. Summary of key issues and recommendations

- 25. Given the special nature of the PARTNER program as results-based lending, there are challenges in evaluating the adherence with SECAP requirements. The PforR instrument intentionally gives greater responsibility and ownership of environmental and social management to the Borrower as compared to regular project-based financing. This creates an excellent opportunity to strengthen the general environmental and social risk management capacities of line ministries and become less dependent on project-level structures in the future, also for projects where IFAD is the leading financier. This could equally already be beneficial for the ongoing and planned IFAD-funded project portfolio in Bangladesh.
- 26. The screening criteria for PforR eligibility already address a significant part of reducing the risk profile of the program. There are no major construction activities envisaged in this program and an inclusive targeting and participatory processes will be applied, further reducing the risk of negative social effects. Nevertheless, the PARTNER design and the ESSA in particular acknowledge that significant work and capacity building is needed to strengthen the environmental and social management system, including through the development of an ESMF during program implementation. The activities pertaining to this development will be included in the Programme Action Plan, a key document used by the World Bank in monitoring progress. Monitoring of the development and implementation of the ESMF will be critical and needs to be a point of attention for IFAD when participating in reviews of program implementation.
- 27. The next section looks in detail at the SECAP standards, the PARTNER design and the elements that should be addressed in the ESMF if they are not already listed in the ESSA.

B. Gap analysis and recommendations

SECAP Standard 1: Biodiversity

Objectives:

- Maintain and conserve biodiversity;
- Ensure the fair and equitable sharing of benefits from the utilization of genetic resources;
- Respect, preserve, maintain and encourage knowledge, innovations and practices of indigenous
 peoples and local communities relevant for the conservation and sustainable use of biodiversity, and
 their customary use of biological resources; and
- Adopt a precautionary approach to natural resource conservation and management to ensure
 opportunities for environmentally sustainable development.

Overall assessment

Biodiversity considerations are well addressed in the ESSA, although focused mostly on on-farm biodiversity (e.g. diversity of crops and soil biodiversity). It should also address impacts on biodiversity in the surrounding areas, such as through preservation of habitats, compensations etc.

Aspect	SECAP requirements summary	Assessment	Recommendations
Risk identification and assessment	Project teams should review the extent of the biodiversity and habitats in the proposed project area, including their vulnerability, irreplaceability, protected status and significance to local communities	Mentioned in ESSA	(none)
Avoidance of adverse impacts	Projects must apply a mitigation hierarchy to anticipate – and whenever possible avoid – adverse impacts on biodiversity and ecosystems. When avoidance of adverse impacts is not feasible and no viable alternatives exist, these adverse impacts should be minimized, mitigated, managed – or as a last resort according to the mitigation hierarchy – offset or compensated.	Mitigation hierarchy not mentioned in documents	To be included in ESMF
Location preferences and habitats	Prioritize locating activities with potential adverse impacts far from critical habitats, protected areas or areas of ecological significance, giving preference to locating activities on lands where natural habitats have already been converted.	IEE screening lists provide in/out filtering of areas.	(none)
Compensation for any unavoidable damage	In cases of unavoidable damage to biodiversity, the project should compensate for these negative effects by supporting mitigation or restoration of similar biodiversity-rich habitats located elsewhere.	Compensation not mentioned in documents	To be included in ESMF
Access and benefit-sharing	For projects that involve the utilization of genetic resources, IFAD will ensure that these resources are collected sustainably and that benefits derived from their utilization are	Access to natural resources mentioned in ESSA	(none)

	shared in a fair and equitable manner		
Invasive alien species	Projects must implement measures to avoid the introduction or utilization of invasive alien species, whether accidental or intentional, and should support activities that mitigate and control their spread	Not considered a major project risk	(none)
Use of biodiversity offsets	Biodiversity offsets may be considered as a last resort only after appropriate avoidance, minimization and restoration measures have been applied.	Compensation may be applied, but important to monitor quality of biodiversity offsets	To be included in ESMF
Use of experts	Where appropriate, the project delivery team should obtain the advice of experts to assess the values of biodiversity and ecosystem services, including cultural, aesthetic, spiritual, educational and recreational values.	Mentioned in ESSA	(none)
Protected areas	When project activities are located within a legally protected or internationally recognized area,33 IFAD will ensure that ()	Legally protected areas excluded through screening	(none)
Primary suppliers	When purchasing natural resource commodities, procurement will be limited to suppliers that can demonstrate that they do not contribute to a significant conversion or degradation of natural or critical habitats	No major procurement of natural resource commodities foreseen	(none)

SECAP Standard 2: Resource efficiency and pollution prevention

Objectives:

- Avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides
- · Avoid or minimize project-related emissions of short- and long-lived climate pollutants
- Promote more sustainable use of resources, including energy, land and water
- Identify opportunities for improving resource efficiency

Overall assessment

Project includes measures aimed at promoting resource use efficiency, ESSA has a comprehensive coverage. Some broader perspectives are missing, such as linkage to IWRM and other off-farm linkages such as with fisheries / aquaculture.

Aspect	SECAP requirements	Assessment	Recommendations
•	summary		
Resource efficiency	Implement technically and financially feasible measures for improving the efficient consumption of energy, water, raw materials and other resources. Whenever possible, projects will support farmers, livestock keepers and processing facility managers in adopting practices that recycle resources (e.g. biomass, water, nutrients, energy) in farming systems	PARTNER documents include various resource efficiency measures and DLIs	(none)
Pollution prevention	identifies technically and financially feasible pollution prevention and control techniques to avoid or minimize adverse impacts on human health and the environment.	PARTNER includes GAP promotion addressing this	(none)
Air pollution	Consider alternatives and implement actions to avoid or minimize project-related air emissions during project design and implementation	PARTNER includes promotion of renewable energy technologies	(none)
Historical pollution	If project activities will generate significant emissions in previously polluted or degraded areas, the partner will adopt measures that avoid and minimize potential negative effects	PARTNER to adopt measures regardless of historical pollution.	(none)
Hazardous materials	Seek to avoid or minimize the potential for community exposure to hazardous materials and substances that may be released through a project.	ESSA addresses agrochemical handling and storage	(none)
Sustainable management of living natural resources	ensure the sustainable management of living natural resources (e.g. forests, agriculture, fisheries, livestock). Adopt appropriate measures to promote animal welfare, control the potential invasion or escape of animal species, and minimize antimicrobial resistance	ESSA addresses living natural resources in terrestrial and aquatic ecosystems	(none)

Water usage	Apply IWRM; conserve	PARTNER is focused	Create linkage with
vvator doago	catchment areas; promote	on on-farm water	IWRM through ESMF
	water-saving approaches;	technologies, is missing	
	promote preservation of water	integration with IWRM	
	quality; include adequate	3	
	ecological flows; strengthen		
	water governance		
Fisheries	Identify the risks and impacts	PARTNER is focused	Address fisheries
resources	of overfishing and	on agriculture but may	aspects in ESMF
	the destruction of coastal	have some exposure to	,
	habitats, supporting	fisheries, to be further	
	communities and fishery	addressed.	
	authorities in		
	the sustainable management		
	of fisheries resources and		
	coastal ecosystems		
Soil management	Avoid – and when avoidance	PARTNER promotes	(none)
	is not possible, minimize –	proper management of	
	adverse impacts on soils,	soils to be promoted via	
	including their biodiversity,	GAP protocols.	
	organic content, productivity,		
	structure and water-retention		
	capacity. Projects should		
	support farmers in adopting		
	integrated soil and water		
	management practices, and		
	practices that recycle biomass		
	and nutrients to conserve and		
	(when needed) recover soils		
	as well as		
	their biodiversity, organic		
	content, productivity, structure		
Farant management	and water-retention capacity.	Average to the reaction and	(2222)
Forest resources	projects in areas with	Areas to threatened	(none)
	threatened forest ecosystems	forest ecosystems to be	
	should support communities and farmers in adopting	excluded via IEE	
	practices for sustainable forest	screening	
	management and agroforestry on hillsides through the use of		
	efficient cook stoves and		
	alternative energy sources to		
	wood		
Pesticide use	Integrated pest management	PARTNER includes	(none)
and management	and integrated vector	capacity building on	(5,1,0)
	management approaches	IPM	
	must be utilized and include:		
	coordinated use of pest and		
	environmental information;		
	pest and vector control		
	methods; appropriate cultural		
	practices; and biological,		
	genetic (and as a last resort)		
	chemical means to prevent		
	unacceptable levels of pest		
	damage		

SECAP Standard 3: Cultural heritage

Objectives:

- Preserve and safeguard cultural heritage
- Ensure that active efforts are made to prevent IFAD-supported projects from altering, damaging or removing any tangible or intangible cultural heritage
- Promote the equitable sharing of benefits from the use of cultural heritage
- Promote meaningful consultation on matters related to cultural heritage

Overall assessment

PARTNER program design has limited detail on cultural heritage. It is recommended to adopt participatory approaches as used in other IFAD-funded projects, that help screen, assess and manage cultural heritage.

Aspect	SECAP requirements summary	Assessment	Recommendations
Screening and assessment	Projects to screen for cultural heritage, and if identified, ensure plans are made for avoiding, minimizing or mitigating any adverse impact	Limited treatment in PARTNER documents	 Include best practices from IFAD-funded projects
Commercial use of cultural heritage	When a project proposes to utilize cultural heritage, including knowledge, innovations or practices of local communities to benefit the project or for commercial purposes, communities should be informed of: (i) their rights under national law; (ii) the scope and nature of the proposed use; and (iii) the potential consequences.	Not applicable	(none)
Meaningful consultation leading to consent	The consultation process for cultural heritage should include groups affected by the project, main users, custodians, local communities, relevant government authorities and interested NGOs	Limited detail in PARTNER documents	 Include best practices from IFAD-funded projects
Confidentiality and restricted access by communities.	the borrower/recipient/partner should determine whether disclosure of information regarding cultural heritage would compromise community safety or integrity, or endanger sources of information.	Not applicable	(none)
Chance finds	Chance finds may not be disturbed until an assessment by qualified experts is made.	Not applicable	(none)
Continued access	When a project restricts stakeholders' access to cultural heritage, continued access will be arranged in consultation with stakeholders whenever feasible, taking into account safety and security considerations.	Not applicable	(none)

Standard 4: Indigenous peoples

Objectives:

- Support indigenous peoples to determine priorities and strategies for exercising their right to development;
- Ensure that each project is designed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC;
- Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from projectsupported activities in a culturally appropriate and inclusive manner
- Recognize and respect the rights of indigenous peoples to the lands, territories, waters and other resources that they have traditionally owned, used or relied upon.

Overall assessment

Very limited treatment of the subject, only in ESSA. Project to adopt participatory approaches to ensure adequate engagement of minorities and vulnerable communities.

Aspect	SECAP requirements summary	Assessment	Recommendations
Meaningful consultation and FPIC	Engagement with indigenous peoples will be undertaken in good faith, in a culturally appropriate manner and with full regard to these peoples' institutions, governance systems, customs and methods of decision-making.	ESSA: "whenever any subproject including their screening are planned in tribal community occupied areas, consultation/FPIC will be undertaken with the tribal community by MoA/IA at each stage of the Program at the local level through FGD"	(none)
Indigenous Peoples Plan	Projects that affect indigenous peoples require an IPP prepared by the borrower/recipient/partner. The IPP should include: (i) a sociocultural and land tenure assessment; (ii) the specific characteristics of each indigenous people or historically underserved local community; (iii) strategy for working with indigenous peoples; and (iv) documentation of the FPIC process.	No IPP or World Bank equivalent required following World Bank policy.	(none)
Culturally appropriate benefits	Ensure that affected indigenous peoples are able to derive benefits from project activities in a culturally appropriate and inclusive manner	Not addressed	To be addressed in ESMF, adopting participatory approaches
Land tenure	Provisions are made in project design and implementation to support the legal recognition of customary and traditional land tenure and management systems, and the collective rights of project-affected indigenous peoples.	Not addressed	To be addressed in ESMF, adopting participatory approaches
Involuntary resettlement	No IFAD-supported project should result in the involuntary resettlement of indigenous peoples from their lands or territories	No involuntary resettlement foreseen.	
Voluntary isolation	No IFAD-supported project should result in adverse impacts on (including undesired contact with) indigenous peoples living in voluntary isolation, or initial contact.	Not applicable	(none)
Cultural heritage	If a project is likely to significantly affect cultural heritage that is essential to indigenous people's	Not applicable	(none)

	cultural, ceremonial or spiritual identity, the partner must seek affected indigenous peoples' FPIC		
Information disclosure	Documentation of the consultation process undertaken during project preparation along with FPIC implementation plans, IPP and indigenous peoples planning frameworks should be accessible and disclosed in a timely manner, in a place accessible to indigenous stakeholders and in a form and language understandable to them.	Not addressed	To be addressed in ESMF, adopting participatory approaches
Grievance redress mechanism	Partner must establish a culturally appropriate grievance mechanism for each IFAD supported project	Addressed in PARTNER documents	(none)

SECAP Standard 5: Labour and working conditions

Objectives:

- · Promote direct action to foster decent rural employment;
- Promote, respect and realize fundamental principles and rights by:
 - Preventing discrimination and promoting equal opportunities for workers;
 - o Supporting freedom of association and the right to collective bargaining; and
 - Preventing the use of child labour and forced labour;
- Protect and promote the safety and health of workers;
- Ensure that projects comply with national employment and labour laws, and international commitments;
- Leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g. maternity protection), young workers, migrant workers, workers in the informal economy and workers with disabilities.

Overall assessment

The project overall aims to create rural employment, further detail on managing social risks especially related to labour, are needed.

Aspect	SECAP requirements	Assessment	Recommendations
Employment promotion	Promote the creation of sustainable employment and improved livelihoods opportunities; optimize value chains and use technologies to create more and better employment opportunities; subcontracting local entrepreneurs; employment of rural youth and women as a result of project activities	The project aims to create local employment opportunities through value chains and technologies.	
Terms and conditions of employment	Projects must include written Labour Management Procedures setting out the conditions in which workers can be employed or engaged, and managed in line with these Standards and national laws	Labor Management Plan to be developed, included as requirements for contractors, plus training	
Non- discrimination and equal opportunity	Decisions related to any aspect of the employment relationships of workers involved in projects including recruitment, hiring, treatment of workers and retrenchment, will be made based on the principles of nondiscrimination, equal opportunity and fair treatment, and not on the basis of personal characteristics unrelated to inherent job requirements.	Not explicitly included in project documents, to be included in Code of Conduct / general requirements for contractors	Include in supplier requirements and training
Workers' organization	promote freedom of association and the right to collective bargaining, and report any violation of these rights. Promotion refers to actively supporting opportunities for rural workers to join groups, producers' associations or rural workers' organizations	Not addressed	Address in ESMF
Forced labour	Forced labour, which consists of any work or service not voluntarily performed and that is exacted from an individual under threat of force or penalty, will	Part of the PforR Exclusion Criteria. Not explicitly mentioned in project documents.	Include in Code of Conduct and stipulate explicitly in contracts

	not be used in connection with any		
	IFAD-supported project		
Child labour	Child labour will not be used in connection with any IFAD-supported project. Child labour includes: (i) labour below the minimum age of employment; and (ii) any other work that may be hazardous, interfere with a child's education, or may be harmful to a child's health or physical, mental, spiritual, moral, or social development.	Part of the PforR Exclusion Criteria. Addressed in ESSA as requirement for contractors + training activities	
Occupational safety and health	Occupational safety and health measures are applied to establish and maintain a safe and healthy working environment, including the prevention and protection of workers from chemical, physical, biological and psychosocial hazards (including violence and harassment).	Addressed in ESSA	
Workplace processes and grievance mechanisms	Borrowers/recipients/partners must establish processes and grievance mechanisms for project workers to report unsafe or unhealthy work conditions, and to remove themselves from any situation that they believe presents an imminent and serious danger to their life or health	A grievance redress mechanism is included in the project design	
Contractor/third- party workers.	Implementation teams must seek to ensure that third parties engaging workers in association with IFAD-supported projects are legitimate and reliable entities, and have appropriate policies, processes and systems in place to operate in line with this Standard	Addressed in ESSA (compliance with project / World Bank policies)	
Primary supplier workers.	Project teams must identify risks of violations of primary supplier workers' fundamental rights, as well as safety and health issues, and establish roles and responsibilities for monitoring primary suppliers	Limited risk from procurement activities foreseen	

SECAP Standard 6: Community health and safety

Objectives:

- Ensure quality and safety in the design and construction of programming-related infrastructure, preventing and minimizing potential safety risks and accidents.
- Avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities.
- Ensure that the safeguarding of personnel and property minimizes risks to communities and is carried
 out in accordance with international human rights standards and principles.
- Have in place effective measures to address emergency events, whether human-made or natural hazards.

Overall assessment

Aspects of community health and safety are generally addressed in the ESSA, to be included in ESMF.

Aspect	SECAP requirements	Assessment	Recommendations
Health and safety risk management	Partners evaluate the risks and impacts of projects on the health and safety of affected communities throughout the project life cycle, including	Addressed in ESSA	
Community exposure	vulnerable people. Projects avoid or minimize the potential for community exposure to health risks and impacts (including pollution and contamination), and diseases that could result from – or be exacerbated by – project activities	Addressed in ESSA	
Nutrition	Partners to identify potential unintended negative impacts on nutrition in the project design phase based on the unique project context, and develop a mitigation plan.	PARTNER has a strong focus on nutrition, albeit mostly on production and processing side.	
Infrastructure design and safety	Partners must design, construct, operate and decommission the structural elements of IFAD-supported projects in accordance with national legal requirements and World Bank Environmental Health and Safety guidelines. Structural design must also take into account climate change considerations	Partially included but needs to be stipulated in contracts. Project design includes very detailed climate change aspects of infrastructure design.	Stipulate in contracts for civil works
Dams	For small dams, generic dam safety measures include ensuring adequate spillway capacity, freeboard and protection of the downstream outfall, an adequate foundation key or cutoff, protection of outlet works from differential settlement and leakage, upstream and downstream slopes appropriate to the properties of the construction material, adequate drainage, avoidance of unsuitable materials and	Program not expected to finance activities related to dams.	

			T
	adequate compaction under competent supervision.		
Hazardous materials	Measures are taken to avoid or minimize community exposure to any hazardous materials used during project activities	Included in IEE / EMP process	
Emergency preparedness	partner must inform affected communities of the risk or negative impact in a socially and culturally appropriate manner.	Addressed in ESSA	
Impact on ecosystem services	Measures must be taken to avoid or minimize adverse impacts on ecosystem services from project activities. Special attention should be paid to avoid causing or exacerbating adverse impacts on marginalized and disadvantaged groups.	Partially addressed in IEE / EMP process. Needs further attention to upstream / downstream aspects and ecological flows	Integrate ecological flows into ESMF
Gender-based violence including sexual exploitation and abuse	Projects must assess the risk of gender-based violence, sexual harassment, sexual exploitation and abuse, and human trafficking to project-affected people and communities. Required measures by borrowers/recipients/ partners to prevent and address these risks include confidential channels for reporting incidents and providing support.	ESSA includes a Gender Based Violence plan potentially to be developed. To be made explicit part of requirements of contractors.	Included measures in agreements and code of conduct for contractors via ESMF.
Traffic and road safety	Projects should include documentation stating the responsibilities for identifying, monitoring and evaluating traffic and road safety risks to affected local communities and other road users throughout the project life cycle.	Not addressed	Integrate into ESMF
Influx of project workers	ensure that appropriate mitigation and management measures are taken to address risks and potential impacts on community health and safety arising from an influx of project- related workers into a given area	Addressed in ESSA.	
Security-related issues and personnel	Where an IFAD-supported project requires the engagement of security personnel, the partner must ensure that the security arrangements do not violate international human rights, standards or principles	Not applicable	

SECAP Standard 7: Physical and economic resettlement

Objectives:

- Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring alternative project designs and sites
- Avoid forced eviction
- Ensure that resettlement activities are planned and implemented collaboratively with the meaningful participation of affected people
- Enhance and restore the livelihoods90 of all displaced people
- Provide explicit guidance to borrowers/recipients/partners on the conditions that need to be met regarding involuntary resettlement.

Overall assessment

PARTNER is not expected to lead to physical resettlement. Further elaboration of the participatory processes is needed to help address potential economic resettlement.

Aspect	SECAP requirements summary	Assessment	Recommendations
Do-no-harm principle	Projects must be designed, therefore, in such a way they 'do no harm' to the land tenure interests of the rural poor, especially those of women, indigenous and tribal peoples and other vulnerable groups. Careful measures must always be considered to avoid elite capture or forced displacement of people, and to address conflicting claims.	Partially included but participatory processes to be strengthened.	To be included in program documents / ESMF
Avoidance and minimization of displacement.	IFAD will avoid or minimize wherever possible any physical or economic resettlement that could negatively impact the affected people; in any case this should be only for a common interest (such as in an irrigation scheme benefitting IFAD's target groups) and based on positive outcomes of FPIC.	Part of PforR exclusion criteria	
Consideration of vulnerable groups	All land and natural resource users with a legitimate claim will be recognized–including people having informal/customary rights.	Addressed in ESSA	
Developing plans to enhance and restore livelihoods of affected persons.	No affected person will be left worse off, and preferably should be left in a better position than before, through proper and timely compensation or any other mitigation measures agreed upon.	Participatory processes and corresponding compensation measures to be strengthened.	To be included in program documents / ESMF
Resettlement Action Plan / Framework	The Project Design Report will contain the Resettlement Action Plan or Framework – with the set of binding actions to be taken in order to avoid, mitigate and compensate the affected people as needed.	Not applicable	(none)

Standard 8: Financial intermediaries and direct investments (not applicable)

SECAP Standard 9: Climate change

Objectives:

- Ensure alignment of IFAD-supported projects with the Nationally Determined Contributions of countries and the goals of the Paris Agreement and other international frameworks;
- Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts, including both impacts of projects and on them;
- Apply the mitigation hierarchy in project design;
- Strengthen the resilience of communities to address the risk of climate change impacts and climaterelated disasters;
- Increase the ability of communities to adapt to the adverse impacts of climate change, and foster climate resilience and low GHG-emitting projects that do not threaten food production.

Overall assessment

PARTNER has a strong focus on climate-smart agriculture, a basic GHG analysis is included. Link to NDC is missing.

Aspect	SECAP requirements summary	Assessment	Recommendations
Climate change risk (impact of climate change on projects)	All projects should be screened to determine their exposure and sensitivity to climaterelated risks (and given ratings of High, Substantial, Moderate or Low Risk). This screening procedure also estimates impacts based on information about historic climate hazard occurrences, current climate trends and future climate change scenarios.	The World Bank procedures do not include such a rating, but the IFAD rating is Substantial	
Climate change risk (impact of projects on GHG emissions)	Projects seek to avoid direct and indirect GHG emissions through its projects. Technically and financially feasible options to reduce GHG emissions may include: alternative locations; use of renewable and low-carbon energy sources; measures to increase energy efficiency; use of low-global-warming-potential coolants for air conditioning and refrigeration; climate-smart agriculture and livestock management practices; and ecosystem-based adaptation and mitigation measures.	Some mitigation aspects are included, including SRI, but this could be expanded	Further expand list of mitigation measures and link to NDC

Annex 1: World Bank-prepared Environmental and Social Systems Assessment (ESSA) for PARTNER

EXECUTIVE SUMMARY

- 1. The Ministry of Agriculture (MoA) of the Government of Bangladesh (GoB) is preparing the "Program on Agricultural and Rural Transformation for Nutrition, Employment, and Resilience (PARTNER)" for financing from the International Development Association (IDA) of the World Bank under a Program for Results (PforR) finance (hereinafter referred to as "the Program"). The Program aims to support a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change in line with the national agriculture program (the national program). It also aims at empowering women's role in agriculture and increasing job opportunities for the youth, as well as increasing the volumes of quality and safe produce marketed in the country, crowding in the private sector as much as possible. The objective of the proposed Program is to promote diversification, food safety, entrepreneurship, and resilience in the agrifood value chains of Bangladesh. The Program will increase food quality and certification through the adoption of food standards for primary producers and the establishment of accredited testing facilities. The program will contribute to improve market integration through the marketing facilities that will be established in Growth Centers and by supporting storage and marketing infrastructure. This will also contribute to the reduction of current substantial post-harvest losses.
- 2. The Program will use the national system for implementation, financial management (FM), procurement, environmental and social (E&S) safeguards, monitoring and oversight, and reporting arrangements. All Program activities will be integrated in the corresponding line agency for implementation and each implementing agency (IA) including Bangladesh Rice Research Institute (BRRI), Bangladesh Agriculture Research Institute (BARI), Bangladesh Research Council (BARC), Department of Agriculture Extension (DAE), Department of Agriculture Marketing (DAM), Bangladesh Agriculture Development Corporation (BADC), and Barind Multipurpose Development Authority (BMDA) will set up a Project Implementation Unit (PIU). A Program Steering Committee (PSC) will guide Program implementation and the Policy Planning and Coordination (PPC) wing of MoA will act as the secretariat for the PSC deputized by the DG DAE. The Program Director (PD) heading the Program Coordination Unit (PCU) at the DAE will lead the overall Program management including overseeing implementation of Program activities, carry out Program management functions, facilitate coordination among participating agencies, and liaise with the World Bank on all Program implementation related aspects.
- 3. The Program will require investment of approximately **US\$ 500 million** of investments over a five year period. The Government national program, the Program of Action of the National Agriculture Plan (PoA-NAP) will be implemented over the period of 2021-2030 and the proposed Program will be implemented over the period of 2023-2028. The implementation of the PoA-NAP will require US\$2.9 billion over the ten years period and the implementation of PARTNER Program, to support part of it, will require US\$ 0.8 billion. The World Bank commits to provide US\$0.5 billion under PforR finance. For rest of the Program cost, US\$ 0.1 billion is expected from other development partners including IFAD as co-financing and the remaining US\$ 0.2 billion will be financed by the GoB. The proposed finance from other development partners is expected to be co-financing the

- same Result Areas (RAs) measured with the same Disbursement Linked Indicators (DLIs) with a predetermined proportion, agreed upon during the preparation.
- 4. The Program operation will support a part of the overall Government program (NoA-NAP). The Environmental and Social Systems Assessment (ESSA) provides a comprehensive review of relevant government systems and procedures for addressing environmental and social (E&S) issues associated with the Program. The ESSA describes the extent to which the Government's E&S policies, legislation, program procedures, and institutional systems are consistent with the six 'core principles' of the World Bank Guidance⁴ on E&S management in PforR operations. The assessment recommends actions to address the gaps and to enhance performance during Program implementation.
- 5. The ESSA has identified potential risks and opportunities and assessed the compatibility of the Program with respect to the core principles. MoA has considerable experience in executing World Bank-financed projects, with demonstrated capacity in managing E&S risk for similar activities. The Program will exclude any activity that may have significant adverse E&S impacts and are sensitive, diverse, or unprecedented.
- 6. Overall Environmental and Social Risks of the Program are assessed to be 'Moderate'. The Program activities have no significant and irreversible impacts on environment and the associated risk is rated as 'Moderate'. The construction of infrastructure would be limited to renovation, repair, and modernization of various facilities within the existing complexes housing the IAs, where limited number of labor force would be employed. As such, the risk would be minimal, effects would be localized and could be mitigated in situ by the contractors employed. There would not be any land acquisition and involuntary resettlement, there exists low risks of social discrimination and SEA/SH. Thus, the social risk is also rated as 'Moderate'. An E&S screening was carried out to identify E&S risks and impacts with respect to contextual, institutional, capacity, and reputational risks facing the Program.
- 7. The potential investments may include small and medium scale civil and construction works, use of digital technology, pest management using naturally tolerable pesticides/herbicides for HYV and other crops diversification, promoting improved and efficient irrigation facilities, agriculture mechanization, establishment of "Technology Villages" and "Growth Centers", scaling up post-harvest and processing technologies, scaling up integrated nutrient management (INM) and integrated plant nutrient system (IPNS), promoting rain water harvesting, testing laboratories, training, research, market linkage, youth engagement, and piloting motivational incentives. The anticipated E&S impacts are mostly localized and reversible and can be mitigated through proportionate management and mitigation measures. The Program Implementation Plan (PIP) will be developed at Program commencement and followed also for E&S risks management requirements and procedures (E&S Guidelines) and a subsequent E&S management framework (ESMF) including Environmental Code of Practice (ECoP) and social management procedures will be developed for the Program at the early stage of implementation. The PIP will be updated when the Program ESMF will be adapted.
- 8. The IAs in the regular operations and projects with finance from the Government's own resources, manage E&S impacts following the national regulatory framework and policies. In case of international finance in their projects, they develop and implement project specific E&S management plans (ESMPs) following the E&S compliance requirements of the international finance institutions to supplement the gaps of the national E&S management system. The involvement of multiple IAs including research organizations

⁴ World Bank Guidance on Program for Results Financing Environmental and Social Systems Assessment (Annex-C)

- with their low capacity to manage E&S risks is noted and would be addressed in the Program Action Plan (PAP).
- 9. Overall, the ESSA found that the country's E&S policies and legal framework applicable in agriculture sector are largely compatible with the E&S core principles for World Bank PforR finance. However, addressing institutional capacity constraints and gaps within the IAs across a range of E&S management system (ESMS) limitations including policy principles and institutional setup, the ESSA recommends several measures under the Program. These measures are summarized as E&S actions to be incorporated in the PAP. Specific recommendations were made to address the identified risks, gaps and needs in Section IV of this ESSA. These measures for improvement of the ESMS have been discussed with the implementing agencies: MoA, BRRI, BARI, BARC, DAE, DAM, BADC, and BMDA. The following table summarizes the main E&S issues and recommended actions to strengthen E&S systems' performance for the Program:

Objectives and issues	Recommended measures/actions
Environment and social management instruments	There is no corporate E&S management system with dedicated staff within MOA and any of its departments, the agricultural universities and the research institutions in Bangladesh. They do not have dedicated budget for E&S management in their regular operations.
	The Program, therefore, requires system enhancement for managing likely associated E&S risks and impacts in compliance with the national regulatory framework supplemented with the World Bank E&S Core Principles for PforR operations. The Program Implementation Plan (PIP) will include E&S management guidelines and procedures in response to the national E&S system and the E&S Core Principles for PforR (E&S Guideline). The PIP would guide the IAs in managing Program E&S risks and issues, and subsequently developing Program ESMF including stakeholders participation plan, labor management plan (LMP), Pest Management Plan (PMP), and Gender and SEA/SH Prevention Plan (where necessary). The Program ESMF will guide E&S screening, impact assessment and management.
	Guideline with the PIP for better management of E&S risks associated with the Program activities and the IAs would develop ESMPs for their respective operations under the Program following this ESMF.
Systems strengthening for management of environmental and	The MoA and some of the IAs have prior experience of implementing projects with World Bank investment project financing (IPF) but none of them have experience in implementation of projects under PforR.
social risks and impact at the central level	The MoA will coordinate, and the Department of Agriculture Extension (DAE) will lead the Program operations requiring oversight of the Program E&S management by employing dedicated staff from within and hiring

Objectives and issues	Recommended measures/actions
	firms/individual E&S consultants. Therefore, capacity building (through training on environmental and social management) of the personnel at the Program Coordination Unit (PCU) at DAE and the hired personnel (1 Environmental Specialist, 1 Social Development Specialist, 1 Communication Specialist and 1 Gender and SEA/SH Specialist) will be required.
	As part of strengthening corporate E&S Management System (ESMS) within MOA and its various institutions with policy, legal and institutional readiness, DAE will upgrade the Program ESMF into MoA's corporate ESMF, applicable for all its institutions, following international policies and best practices, and national legal framework on E&S risks management including experience from PARTNER and other completed and ongoing projects under MoA. Per requirement of the corporate ESMF developed under the Program, MoA will design and establish a separate "Environmental, Social and Communications Section" (ESCS) with networks of E&S units/desks at all its institutions. These recommendations are summarized as actions to be incorporated in the Program Action Plan (PAP).
	The MoA ESCS within its fold should be staffed with required E&S and communication experts on regular payroll to focus on environmental and social management and communication matters associated with projects and programs across MoA institutions.
	This being a lengthy administrative process encompassing various ministries, MoA may, for the time being, hire the services of E&S and Communication specialists from the Program budget for the interim period.
	MoA and relevant IAs can also designate/depute some officials to liaise with the MoEFCC/ Ministry of Social Welfare (MoSW) in addition to complying with the E&S guidelines developed for the Program.
Training at macro and micro (IAs, contractor/ subcontractor) level on environmental and social risk and impact mitigation, labor management, SEA/SH risks and incidents,	MoA/DAE and other IAs have been providing relevant training to its own staff and contractors. However, field-level experience suggests that gaps exist in the implementation of E&S risks mitigation measures. Therefore, there is a need for continued capacity-building initiatives specifically for the staff engaged in Program supervision at the Division, District, Upazila, Union and Block level including contractors and subcontractors involved with the Program. Adequate budget has to be allocated for this purpose from the Program fund. This activity should also align with the National Integrity Strategy 2012.
stakeholder engagement, and	detaile, should also diigh that the Hational integrity strategy 2012.

Objectives and issues	Recommended measures/actions
grievance redress service (GRS) issues	
Measures to increase accountability for compliance of E&S Core Principles for PforR at the field level	Field-level capability of MoA/IAs suggest that there is need to improve capacity for implementing E&S issues/ESMPs, especially on issues like Occupational Health and Safety (OHS), working condition of workers, stakeholder engagement, risks and incidents of GBV including SEA/SH etc. The following measures are to be adopted:
	The E&S compliance requirements and procedures as outlined in the PIP and subsequently in the Program ESMF, reflected in the contractual agreements of the contractors and subcontractors under the Program.
	The subcontractors and labor contractors are sensitized about their obligations related to E&S compliance in areas of labor management, restrictions on using Child Labor, resource efficiency, Water and Waste Management, Dust, noise and light suppression, safe disposal of waste petroleum products and lubricants, traffic management, measures to offset GBV, SEA/SH in the workplace and GRM concerning the Labor force etc. through training. Adequate budget has to be allocated from Program Fund.
	Contractors will prepare site specific ESMP (Contractor's ESMP or C-ESMP) following the site-specific ESMP prepared at the design stage or the PIP provisions on E&S management and the Program ESMF (when developed) including PMP, and LMP prepared by the MOA/IAs before the bidding process starts during the project implementation.
	Payment to contractors may be tagged with satisfactory compliance of C-ESMP requirements and procedures.
	Daily record of site supervision by the safety officer must be made available at the project sites. This should be a contractual obligation between DAE and the contractors.
E&S compliance monitoring and reporting	DAE will engage its dedicated focal persons and the relevant E&S consultants to be hired to ensure E&S compliance monitoring of all the Program activities engaging relevant staff of the partner agencies and will produce Quarterly E&S Monitoring Report (QESMR).
Child labor, management and	Bangladesh Labor Law puts minimum legal age for employment as 14. MoA and the IAs to ensure that Contractor-developed site-specific ESMP/LMP includes specific clauses and monitoring measures on labor

Objectives and issues	Recommended measures/actions
monitoring of Labor influx, and SEA/SH	management, child labor restrictions, and minimizing SEA/SH risks. Local community, including local leadership, members from the tribal community (when available) and other stakeholders should be consulted while preparing and updating the ESMPs including labor management procedures.
	MoA should arrange a strong monitoring system under the Program including engagement of a third-party monitor and creation and operation of a GRM for settlement of labor-related complaints and grievances including SEA/SH. IAs should ensure the following by incorporating these in the contractual documents and through physical monitoring:
	Construct labor sheds near the work sites so not to adversely affect local communities and their way of living.
	Undertake mandatory and repeated training and awareness program on LMPs for the workforce at site.
	 Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites.
	Take adequate measures for gender-friendly workplace environment at all work sites and at the labor sheds.
	 Ensure addressing of OHS issues at the work sites inclusive of all workers by gender, age, and ethnicity and ensure availability and use of personal protective equipment.
	 Ensure firefighting and first aid facilities including ambulance services and hospitals for quick evacuation in case of worksite accidents (may be mentioned during tender process).
	Display important telephone contacts such as local emergency services in billboards at the work site and labor shed.
	 Access and make use of GRM in coordination with the local law enforcing agencies, where required, for any issues of labor including misconduct, illicit behavior, drug abuse and other social crimes etc.
Stakeholder Engagement and GRM	The Program activities will follow all-inclusive consultative process, and citizen engagement including grievance response. Meaningful consultation will be conducted with the tribal peoples where Program activities will target them. DAE, DAM and BMDA to undertake consultation and ensure community participation through interpersonal communications, FGDs, and small and large community meetings at Program areas at the identification, planning, design, implementation, and

Objectives and issues	Recommended measures/actions	
	evaluation of site-specific activities. Additionally, MoA may use radio broadcast and other media forms to further disseminate information, whenever required. The PIP should include a detailed guideline to this effect. Recording of grievances need to be ensured at the field and Program level interlinked with the Centralized GRS of the Government of Bangladesh. Since several IAs are involved, individual IAs should share its record and actions on grievances to DAE for final tabulation to share with MoA and the World Bank. DAE, in consultation with MoA may develop and circulate a standard format to this effect. MoA will integrate Program GRM with the centralized GRS promoting its wider access to Program beneficiaries and stakeholders. Necessary budget has to be allocated for this purpose from the Program fund.	

SECTION I: PROGRAM DESCRIPTION

• 1.1 Introduction

Bangladesh has a remarkable track record of agricultural growth since the mid-1990s; and it has achieved rice self-sufficiency and overall food security, two overriding objectives of the past agriculture strategies. Introduction of new high yield varieties (HYV), expansion of access to irrigation, and use of fertilizer and farm mechanization intensified the raising production of crops, particularly rice, over 4 percent annually between 1996 and 2019⁵. Successive policy reforms, particularly in agricultural input markets, investment in agricultural research and development (R&D) and extension, and a persistent policy focus on increasing rice production in the country were instrumental to the success in doubling rice production since the mid-1990s. Other crops, particularly horticulture crops, have also maintained sustained growth since the 2000s and the areas cultivating fruits, flowers, fiber, spices, and pulses increased more than 60 percent between 2008 and 2018.⁶

Agriculture⁷ is a key driver in poverty reduction and primary agriculture still dominates the rural economy in terms of employment, supporting 54 percent of rural employment and 43 percent of national employment.⁸ The agriculture sector has potential to promote inclusive rural growth as the sector is dominated by millions of smallholders, female and male, as well as an increasing number of women workers and a growing number of educated entrepreneurs and youth. Women's role in agriculture is focused on post-harvest activities such as threshing and storage; and women's involvement in production and marketing is limited and constrained by social norms along with limited business skills, voice and agency, and access to inputs, training, services, and technology. The inclusive agricultural growth opportunities would also benefit youth and more educated individuals who are increasingly entering the downstream (such as machinery services) and upstream (trading and logistic services) activities in agricultural supply chain.⁹

Bangladesh agriculture is significantly vulnerable to climate change impacts and other shocks such as the COVIID-19 pandemic. Climate change is already affecting agricultural production through temperature increases, sea level rise, saltwater intrusion, rainfall variability, and extreme weather events. Environmental degradation caused by monocropping, overuse of chemical fertilizers, and overexploitation of groundwater resources pose additional risks to the development of a sustainable agricultural production system. In addition, the entire agricultural supply chain was disrupted by the multiple COVID-19 lockdowns in 2020 and 2021.

The agriculture sector needs to diversify more rapidly to sustain food security, meet changing diets, improve nutrition, contribute to greater inclusion, enhance profitability of actors along the high-value agricultural supply chains and adapt to a changing climate. Rice productivity increase, agricultural diversification, and more resilient agriculture will be achieved through a more efficient use of inputs (water, energy, fertilizers), improved seed varieties (HYV, hybrid, fortified, stress-tolerant), appropriate scale mechanization, and adoption of GAP/IPM /CSA practices. The establishment of "Technology Villages" will be instrumental for efficient transfer of technology and provision of services to farmers. Farmers will be provided with a Krishak smart card, and producer organizations will be promoted and strengthened, with particular attention to women, to improve farmer aggregation and market linkages with upstream and downstream of the agri-food value chain.

⁵ World Bank. 2021. World Development Indicators.

⁶ Bangladesh Bureau of Statistics. 2020. Agriculture Census 2018.

⁷ Agriculture sector in Bangladesh is comprised of three subsectors- crop (including horticulture), livestock, and fisheries.

⁸ Bangladesh Bureau of Statistics. 2017. Quarterly Labor Force Survey 2016.

⁹ World Bank. 2016. Dynamics of Rural Growth in Bangladesh: Sustaining Poverty Reduction.

There are substantial market opportunities for productive diversification and value addition for the agri-food sector in Bangladesh. With rapid urbanization and fast income growth, dietary patterns are changing in the country with the demand for fruits, vegetables, meat, eggs, and fish expected to expand by more than 50 percent by 2030. The private sector is gradually becoming more involved in making significant investments in agro-processing, and improved marketing to meet this growing demand for processed food and feed. Some niche export opportunities could even be seized in horticulture and other subsectors, provided value chain actors manage to meet export markets requirements.

Some on-farm and off-farm constraints are slowing down the transformation of the agriculture sector towards a more diversified, modernized, and resilient production system. Intensive farming through more mechanized farm operations, particularly for crop establishment and harvesting, are becoming a reality. The current extension system and delivery models need improvement, particularly through training, digital agriculture, and innovations to meet the challenge of reaching around 15 million farms. Encouraging private extension service providers will also be important to build a market-oriented extension system. Addressing off-farm constraints will necessitate better post-harvest management practices, improvement in marketing and logistics infrastructure, strengthening food safety facilities, and encouraging a greater participation of the private sector along the agri-food value chain.

The proposed "Program on Agricultural and Rural Transformation for Nutrition, Employment, and Resilience (PARTNER)" aims to support a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change. It also aims at empowering women's role in agriculture and increasing job opportunities for the youth, as well as increasing the volumes of quality and safe produce marketed in the country, crowding in the private sector as much as possible. PARTNER Program would contribute in creating an enabling environment for the modernization of agriculture sector through the adoption of appropriate PPP framework for the mobilization of finance for development (MFD); the establishment of public-private dialogue platforms; through the establishment of a sector-wide digital MIS system; and the strengthened capacity of the Ministry of Agriculture (MoA) and its agencies in policy/program design, implementation, monitoring, and evaluation. The World Bank has agreed to supporting the PARTNER Program (the Program) through a Program for Results (PforR) financing.

This Environmental and Social Systems Assessment (ESSA) of the proposed Program was undertaken to meet the requirements the World Bank PforR guidelines¹¹ on Environmental and Social (E&S) management. The ESSA reviewed government policies and acts and assesses existing institutional capacity of the Ministry of Agriculture (MoA) and other implementing agencies¹² to manage E&S risks and impacts of the Program components and activities. The ESSA reviews the proposed Program activities for potential E&S risks, identifies the strengths and weaknesses of the existing system (policy, legal and institutional framework) of managing these risks and proposes measures for filling the system gaps including capacity-development of the program implementing agencies in term of policy and institutional arrangement. Public consultation was carried out by the World Bank E&S staff virtually (in COVID-19 pandemic situation) with the Program stakeholders including affected population in the presence of MoA staffs to identify the potential risks associated with the Program. The ESSA proposes measures in the Program Action Plan (PAP) to address the E&S risks.

¹⁰ World Bank 2020. Promoting Agri-Food Sector Transformation in Bangladesh: Policy and Investment Priorities.

¹¹ World Bank Guidance on Program for Results Financing Environmental and Social Systems Assessment (Annex-C)

¹² The implementing agencies are Ministry of Agriculture (MoA), Department of Agriculture Extension (DAE), department of Agriculture Marketing (DAM), Barendra Multipurpose Development Authority (BMDA), Bangladesh Agricultural Development Corporation (BADC), Bangladesh Rice Research Institute (BRRI), Bangladesh Agricultural Research Institution (BARI) and Bangladesh Agricultural Research Council (BARC).

The ESSA team used various approaches to review the E&S systems that are relevant to the PARTNER Program in response to the six core principles and their guiding questions for PforR on the E&S risks and impacts. It included analysis of information and data on previous assessments and reports on the status of different aspects of their management of E&S issues and national consultations with all key stakeholders related to the Program. The ESSA was developed based on (a) a review of existing policies, development plans, legal and regulatory framework and guidelines of the international development financing institutions working with MoA; (b) meetings and interviews with different stakeholders including MoA/DAE/DAM/BMDA/BADC/BRRI/BARI/BARC and relevant other organs/staff involved in environmental, social, health, safety, and labor issues in development projects at MoA; (c) an assessment of relevant environmental and social management systems (ESMS) at MoA; (d) an assessment of the capacity and performance of MoA relative to its own procedures and processes; (e) development of an action plan to enhance E&S management capacity and performance; and (f) development of performance monitoring and implementation support program. The formulation of the ESSA will be informed by a consultative process involving key national and local stakeholders.

1.2 Brief description, geographical scope, duration and objectives of the Program

The PARTNER Program aims at supporting a transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change. The proposed Program would support the Plan of Action (PoA) of National Agriculture Policy (NAP) 2018 that support GoB's vision and objectives of achieving a safe, profitable agriculture and sustainable food and nutrition security as it will influence policy goals and finance critical selected investments. The PoA-NAP will be implemented over the period of 2021-2030 and the proposed PARTNER PforR Program will be implemented over the period of 2023-2028. The Program area encompasses whole of Bangladesh.

The PARTNER Program Development Objective (PDO) is to promote diversification, food safety, entrepreneurship, and resilience in the agri-food value chains of Bangladesh. At PDO-level the following indicators are proposed to assess the Program's results:

- i. Increase in area under non-rice cereals, pulses, oilseeds, and horticulture crops (hectare) (to capture increased diversification).
- ii. Increase in area under fruits and vegetables with GAP certification (hectare) (to capture food safety)
- iii. Women and youth with entrepreneurship training have started businesses (number) (to capture entrepreneurship).
- iv. Farmers adopting improved agricultural technology (number) (to capture increased resilience).

The programs selected to be included carry maximum weight in the PoA and will be catalytic to achieve overall NAP objectives. The programs proposed to be partially included or combined with other programs have certain interventions that are directly linked to the overall objectives of PARTNER.

The Program has three results areas (RAs): (1) Result Area I: Promoting Sustainable and Nutritious Food Production; (2) Result Area II: Increasing Entrepreneurship and Access to Services along the value-chains; and (3) Result Area III: Result Area III: Modernizing Institutions and Policies for Agriculture Transformation. These results areas have strong synergies and are mutually supportive.

Rice productivity increase, agricultural diversification, and more resilient agriculture will be achieved through a more efficient use of inputs (water, energy, fertilizers), improved seed varieties (HYV, hybrid, fortified, stress-tolerant), appropriate scale mechanization, and adoption of GAP/IPM /CSA

practices. The establishment of "Technology Villages" will be instrumental for efficient transfer of technology and provision of services to farmers. Farmers will be provided with a Krishak smart card, and producer organizations will be promoted and strengthened, with particular attention to women, to improve farmer aggregation and market linkages with upstream and downstream of the agri-food value chain.

PARTNER will contribute to creating an enabling environment for the modernization of the agriculture sector through the adoption of appropriate PPP framework for the mobilization of finance for development (MFD); the establishment of public-private dialogue platforms; through the establishment of a sector-wide digital MIS system; and the strengthened capacity of the MoA and its agencies in policy/program design, implementation, monitoring, and evaluation.

The Government Plan of Action, Thematic Areas and the Theory of Change are at Annex A. Details on the Results Areas, DLIs and Results Indicators, proposed lead agency and other agencies are at ANNEX B.

• 1.3 Identification of any differences in geographic or thematic scope between the borrower's program and the World Bank-financed Program.

Table 1 below indicates the three thematic/results areas of the PoA and their respective programs and highlights Program that are proposed to be included under PARTNER PforR. The PoA under NAP and the Bank's PARTNER PforR Program has the following differences (as in PAD September 09' 2022) as shown below:

	NAP Plan of Action (2021 – 2025)		PARTNER Program (2023-28)
Development objective	To achieve safe, profitable agriculture and sustainable food and nutrition security		To enable resilient production and marketing of diverse, safe, and nutritious food in Bangladesh
Thematic Area	Programs	Results Area	Activities
I. Sustainable Food and Nutrition Security	Crop Diversifications and sustainable production of safe and nutritious food	I. Sustainable and Nutritious Food Production	 Development, rollout, and adoption of Good Agricultural Practices (GAP) standards in fruit and vegetable production. Development and adoption of High Yielding Rice Varieties. Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops Adoption of efficient irrigation technologies.
	Strengthening Specialized Agriculture, Protected Cultivation and Production Systems in Special Geographical Areas		
	3. Efficient and Economic Extension Systems for Fast and Effective Transfer of Technology		
	Enhancing Availability of Quality Inputs including Credit, Storage and Marketing		
	5. Climate Smart Agriculture		

	NAP Plan of Action (2021 – 2025)		PARTNER Program (2023-28)
	6. Sustainability of production systems and management of natural resources		
II. Increasing Income and Livelihood Opportunities for Farmers	7. Post-Harvest Management: agroprocessing and development of safe & quality value chain	II. Increasing Entrepreneurship and Access to Services along the value-chains	 5. Expansion of digital agricultural services provision through 'Krishak Smart Card' 6. Promotion of the accreditation of seed certification and food safety testing processes 7. Promotion of agriculture entrepreneurship for youth and women.
	8. Promotion of Industrial & Export- oriented Crops Clusters & Collaboration with Private Sector13		
	9. Appropriate Scale Mechanization (ASM) & Use of Clean Energy in Farm		
	10. Attracting, Skilling and Retaining Youth for Innovation-based development in Agriculture		
	11. Increasing Real Income of Farmers, Labors and women farmers for their empowerment14		
III. Modernization of Agricultural Research, Education & Extension	12. Quality investment in Agricultural Research for development	III. Modernizing Institutions and Policies for Agriculture Transformation	8. R&D activities for new technologies and innovations increased along with an operational evaluation system for NARS institutes 9. Establishment and operationalization of value chain promotional bodies for select commodities. 10. Improvement of quality information system (agricultural statistics and market research services incl. foreign markets).
	13. Intellectual Property Rights Sovereignty on Natural Resources and International Partnership15		

• 1.4 Key implementing agency of the Program

MoA, and some of its departments, namely Department of Agricultural Extension (DAE), Department of Agricultural Marketing (DAM), Bangladesh Agricultural Research Council (BARC), Bangladesh Agricultural Research Institute (BARI), Bangladesh Agricultural Development Corporation (BADC) and Barendra Multipurpose Development Authority

 13 There are other fully funded programs that cover proposed export crops of jute, sugarcane and cotton.

¹⁴ Proposed measures for ensuring ruminative prices to farmers have larger macroeconomic impacts beyond this operation.

¹⁵ Setting up an IPR authority for agriculture will require longer legislative and administrative actions beyond this operation.

(BMDA) are the implementing agencies (IA) of the Program. Most of the IAs have prior experience of projects with World Bank finance adopting project based Environmental Management Framework (EMF) and Social Management Framework (SMF) following the World Bank safeguards for IPF for bridging the gaps of national regulatory framework.

There is no corporate E&S management system with dedicated staff within MOA and any of its departments and research institutions, and the participating universities. These institutions do not have any annual budget provisions for E&S management in their regular operations. E&S capacity building would therefore be required for E&S compliance management of the Program investments.

The Program will use the government system for implementation, oversight, financial management (FM), procurement, environmental and social safeguards, M&E, and reporting arrangements with supplementary measures to comply with the E&S core principles of World Bank PforR financing. A Program Implementation Plan (PIP) will be developed and accordingly, a Program Steering Committee (PSC), headed by the Secretary of MoA, composed of Head of the agencies (Director General, Executive Chairman and Chairman, as appropriate) from the agencies under MoA involved in PforR implementation, as well as Program Director (PD) at the lead agency (DAE), will provide overall strategic guidance, approve annual budget and activity plans, monitor overall implementation progress, facilitate inter-agency coordination required for smooth Program implementation, and resolve any outstanding issues requiring higher level decision. The Planning and Program Coordination (PPC) of MoA will act as the secretariat for the PSC and will be deputized by the DG, DAE.

The DAE will be in charge of overall Program coordination during design and implementation. A Program Coordination Unit (PCU), will be housed at the DAE to oversee implementation of Program activities, carry out management functions, facilitate coordination among participating agencies, and liaise with the World Bank on all implementation related aspects. All Program activities will be integrated in the corresponding line agency (e.g., BRRI, BARI, BARC, DAE, DAM, BADC and BMDA) for implementation of the Program and delivery of agreed results. The PCU at the DAE will include a Program Director (PD), other relevant staff and heads of agency level Program coordination unit (APCU). Agency level Program Focal Unit (APFU) will be established. The APFU will include agency level Program Director (APD) and heads/members of DLI-specific technical coordination teams. DLI technical teams (DTT) will include a head from the lead agency and members of other supporting agencies. APFUs will report to the head of agency (i.e., DG/Chairman/Executive Chairman, as appropriate) and PCU. DTT will monitor the implementation of activities to achieve the DLI and document results in coordination with the agency's M&E units. Planning Project Implementation and ICT wing of DAE is in charge of planning and implementation of project and programs. The APCUs will use - in a manner consistent with GoB and World Bank fiduciary requirements - Program funds allocated to the respective components (including for covering operating costs).

Institutional Arrangements

Program Steering Committee (PSC)

Headed by Secretary-MoA, All agency heads (DG/Chairman) and the Program Director (PD) are members.

Additional Secretary, who will oversee the Program, will act as a Member Secretary of the PSC

Program Coordination Unit (PCU)

PCU will include a Program Director (PD), other relevant staffs, and heads of the APCU. PCU will be housed at the DAE

Agency-Level Program Coordination Unit (APCU)

APCU will include an Agency-level Program Director (APD), and heads/members of DLI-specific technical coordination teams.

DLI Technical Teams (DTT) will include a head from the lead agency and members from other supporting agencies.

DTT members will be part of their respective APCUs. APCUs will report to both DG/Chairman and PCU.

will monitor the implementation of activities to achieve the DLI and document results in coordination with the agency's M&E unit

 The Program will rely on MoA's own M&E process to track DLI results and recruit a third-party verification agency to verify the DLI results

• 1.5 Description of the borrower's previous experience with implementation of its program

The MoA has acquired extensive experience in developing and implementing sectoral policies, strategies and action plans, in working with key stakeholders including farmers, agribusinesses, and in straitening public institutions serving the agriculture sector. However, MoA/IAs do not have any dedicated E&S management mechanism or budget to address environmental and social issues.

The PARTNER Program would be built on experience and lessons learned from on-going and past agricultural projects. GoB and the World Bank have worked together since 1976 for the agriculture development in Bangladesh. GoB undertook major institutional reforms in the agriculture sector over the years supported by the Bank, which resulted in the establishment of successful demand driven agricultural research and advisory services and contributed to the Country's success story in becoming self-sufficient in rice, fish and meat. The recent World Bank support to the sector focused on financing MoA on activities related to diversification of agricultural production, resilience, poverty, nutrition (nutrition sensitive activities) and target results in productivity growth, market access, jobs, nutrition and resilience. It comprises five ongoing operations: The National Agricultural Technology Program – Phase II Project (NATP-II), the Modern Food Storage Facility Project (MFSFP) and its additional financing, the Nuton Jibon Livelihood Improvement Project (NJLIP), the Sustainable Coastal & Marine Fisheries Project (SCMFP) and the Livestock and Dairy Development Project (LDDP); and two recently approved operation which are yet to be operational the Climate Smart Agriculture and Water Management Project (CSAWMP), Bangladesh Meteorological Information System (BAMIS), and the Resilience, Entrepreneurship and livelihoods Improvement Project (RELI). Lessons that could be drawn and applied in PARTNER Program include:

- For encouraging the farmers and other relevant stakeholders, the Common Interest Group (CIGs) as followed in NATP II may be replicated.
- Nutrition Model of ANGEL could be re-established.
- Exporting system of agro-products could be revitalized.

- The research extension farmers' linkage of BARI, BARC/ NARS needs to be strengthened further for rapid dissemination and adoption of proven technologies. Similarly, existing exchange channels with BADC and DAM also need to be strengthened.
- BRRI was engaged previously with IAPP where the work was limited in two regions of Bangladesh. So, area coverage of the PARTNER Program could be increased in different regions of Bangladesh to address demand-based location specific and stress tolerant varieties (drought, submergence salinity, haor area, char land etc.) and technologies.
- BADC congregated some expertise from IAPP on solving various environmental issues of the char areas of the northern part (Rangpur- prone to drought & flood) and coastal belt of the southern part (Barisal- prone to salinity). These learnings could be replicated in PARTNER Program.
- Based on the past experiences of implementing different WB funded projects and also considering potential involvement, MoA may consider having a "ES and Communication Section" at MoA with required staffs and preparing an independent Environmental and Social Management Framework (ESMF), which would enable it to have inbuilt management of E&S risk and impacts associated with the current project vis a vis all future projects/programs.

Other lessons learned through the Bank's global experience with similar PforR operations and other agricultural transformation programs especially in the South and South East Asia Region could also be replicated in PARTNER Program.

It may be noted that **DAE** undertook consultation with the stakeholders during Community Needs Assessment where problems were identified by using participatory rural appraisal (PRA) and focused Group discussions (FGD) tools (Proceedings at Annex-D). Certain feasibility studies were undertaken by DAE to identify the Program interventions. On the other hand, **DAM** undertook internal discussions with various sections namely Market linkage section, Research Section, Training and Coordination section, Extension and regulation for capturing the ideas for supporting the result-based activity in DAM internal coordination meeting headed by Technical Focal Person. **BADC** has a homegrown effective channel of communication using 200,000 Contract farmers and irrigation scheme farmers, 8000 seed dealers along with 326 field offices for supplying inputs and information to the end-users.

BARI arranged consultation meetings with different Divisions and Centers for need assessment of the PARTNER project as per NAP, PoA and 8th FYP besides participating in different meetings both organized by the World Band, MoA, and DAE. **BRRI** selected the interventions of the Program through discussion with all 18 BARI divisions and regional stations following the demand of the target stakeholders. The demand was identified during research activities at BRRI headquarter, regional stations and meeting farmers in the fields. **BARC** has also carried out extensive consultation amongst the inhouse researchers on their role on Program intervention. **BMDA** has conducted stakeholders Consultation on the different activities for potential need assessment which helps developing of the Program design.

SECTION II: DESCRIPTION OF EXPECTED PROGRAM ENVIRONMENTAL AND SOCIAL EFFECTS

This section presents the E&S benefits, risks, and impacts of the Program. The Program is not likely to have significant E&S risks. **Overall Environmental and Social Risk of the Program is considered as 'Moderate'.**

The Program activities have no significant and irreversible impact on environment and is rated as 'Moderate'. In the social sector, the construction of infrastructure would be limited to renovation, repair and modernization of various facilities within the existing complexes housing the IAs where limited number of labor force would be employed at the relevant IA. As such, the risk would be minimal, effects would be localized and could be mitigated in situ by the contractors employed. There would not be any land acquisition and involuntary resettlement. There exists low risks of social

discrimination and SEA/SH. As such, social risk rating is 'Moderate'. Other Program activities include use of digital technology, pest management, promoting improved and efficient irrigation facilities, agriculture mechanization, establishment of "Technology Villages" and "Growth Centers", scaling up post-harvest and processing technologies, scaling up integrated nutrient management (INM) and integrated plant nutrient system (IPNS), promoting rain water harvesting, testing laboratories, training, research, market linkage, youth engagement, and piloting motivational incentives. Multiple implementing and research organizations would be involved with the Program, and their inconsistent and generally low capacity to manage E&S risks have been identified.

• 2.1 Environmental risks and opportunities of the Program

From environmental perspective, the project activities fall under categories with low to moderate risk. Although the number of activity sites are expected to be many, but, the potential adverse risks and impacts on the environment are not likely to be significant and risks and impacts can be easily mitigated in a predictable manner. The anticipated environmental impacts are mostly localized and reversible. Furthermore, certain types of infrastructure will be considered ineligible and placed on a "negative" investment menu — those are very likely to have a significant negative environmental impact(s), such as investments considered high risk under the ESF.

2.1.1 Potential environmental challenges and risks

The PARTNER Program does not envisage any significant or irreversible environmental impact. There will not be any conversion of land use, especially no forest land will be converted for agriculture use under the Program. Environmental impacts are anticipated from small scale infrastructure construction related activities such as generation of noise, air pollution, liquid and solid wastes, health & safety, etc. Given that the nature of the activities is small to medium scale and that they will be implemented within existing footprints, impacts are expected to be localized, manageable and reversible.

- Technology demonstration/Promotion of good agricultural practices, IPM and Climate smart technologies might have following negative impacts:
 - (1) Introduction of high yielding varieties (HYV) might have impact on local agro biodiversity.
 - (2) Excess use of ground water for intensive cropping depleting the ground water resource.
 - (3) Use of Arsenic contaminated water for irrigation would result in accumulation of residues through food chain.
 - (4) Use of pesticides under IPM when done without following guidelines would lead to application of high doses resulting in pest resurgence and development of resistance.
 - (5) High chemical residues in food crops.
 - (6) Loss of useful insects (natural enemies to pests), this may happen even when IPM techniques are applied.
 - (7) Contamination of soil and water bodies nearby due to runoff.
 - (8) Open disposal of pesticide containers is hazardous to cattle and children.
 - (9) Use of fertilizers under INM without following the recommendations leads to algal blooms in water bodies leading to loss of aquatic biodiversity.
 - (10) Soil quality (capacity of infiltration of water) and microbial population would be affected due to high doses of fertilizers. Salinization of soil could be another problem. Greenhouse Gas emissions are associated with excess N fertilizer use.

- (11) Farm level operation without information on weather parameters might lead to ineffectiveness and repeated applications of chemicals or loss of crop.
- The organic matter content and fertility status of Bangladesh soil is very low. Cultivation of High
 Yielding Varieties of crops and adoption of modern technologies have led to severe depletion of
 nutrients from the soil. Intensive agriculture with very high nutrient turnover in soil-plant system
 coupled with low and imbalanced fertilizer use might resultant in deterioration of soil fertility and
 native soil flora and created a serious threat to long-term sustainability of crop production.
- BMDA and BADC, and other implementing agencies will demonstrate efficient irrigation technology which might lead to stress on water resources. Ground waters from both shallow and deeper aquifers are being used by BMDA and BADC extensively for irrigation. It is necessary to exercise caution in the large-scale exploitation of confined deep aquifers, as these may be depleted giving rise to serious problems in the future. Therefore, activities that encourage groundwater recharge need to be integrated into the design of irrigation systems.
- In addition to above, arsenic contamination of ground water is a serious issue of concern in the country. The source is parent rock and several tube well irrigated crops receive the contaminated water. For long, the arsenic bearing minerals such as arsenic sulfides were submerged in groundwater and remained inert. With the start of intensive withdrawal of groundwater for irrigation for growing Boro rice, the aquifers started to drop causing arsenic to oxidize. Once oxidized, arsenic sulfides become water-soluble which ultimately come up with the pumped water. This may be a potential threat of the activities proposed under BMDA and BADC.
- Promoting farm mechanization might lead to cause following impacts:
 - (1) Spread of Invasive weeds and pathogens from one field to other field through uncleansed farm machinery and implements. This will further encourage use of fungicides and weedicides.
 - (2) Use of some of the machinery such as Power weeders, Power sprayers and Power tillers will increase use of fuels and will cause emission of GHGs (Green House Gases). The exhaust fumes from this farm machinery pollute local environment quality.
 - (3) There can be some safety hazards owing to use of machineries, lead to OHS of the farmers.
- Promoting Agro processing and Infrastructure Development of value chains might have following potential impacts:
 - (1) Infrastructure development for Agro processing and value chains may cause harm to surrounding environment.
 - (2) Use of artificial ripening agents like calcium carbide leads to health risks.
 - (3) Chemical residues in raw material may pose health risks.
 - (4) Processing and value addition may require high amount of energy and water depleting local fuel and water resources and increasing emissions due to energy use.
 - (5) Activities like milling, shelling, crushing de-husking etc. led to noise pollution, if conducted near residential areas. In case of some commodities like rice, exposure to the fine dust during de-husking may lead to health problems among workers.
 - (6) Accidents and health hazards are possible during processing involving machinery.
 - (7) Unhygienic environment or practices at processing will contaminate the food products.

- (8) Processed foods when not stored properly could be contaminated with molds and mycotoxins.
- (9) Disposal of wastes openly after processing (water, seed coats, peels, etc.) after processing may create unhygienic environment due to decomposition.
- Small and medium scale infrastructure construction works may have the following negative impacts: (a) drainage congestion, (b) noise pollution, (c) air pollution, (d) water pollution, and (e) Light pollution, and (f) environmental pollution from solid/construction waste. Cutting of trees for construction of processing facilities leads to loss of vegetation. Open disposal of debris after construction, may obstruct drains, etc. Dust and noise pollution during construction are harmful to local environment, nearby residents. Poorly designed temporary labour camps and drinking water and sanitation facilities will pose a health threat and nuisance to the workers.

2.1.2 Potential environmental benefits and opportunities

The proposed Program has many environmental benefits. These include:

- Promoting rice productivity through greater use of HYV, hybrid, and biofortified seed varieties as
 well as introducing system or rice intensification (SRI) including alternate wetting and drying
 practices with potential to increase productivity and reduce methane emissions; the Program will
 contribute to increasing nutrition and rice productivity in a sustainable manner.
- This Program will also enhance food safety through the adoption of GAP and IPM practices, which
 seeks to increase income and livelihoods of farmers through linkage to markets that can pay a
 premium for quality products. Diversified products and income sources can increase resilience to
 climate change by hedging against climate risks and providing a continuous income stream
 throughout the year.
- Climate-Smart Agriculture can increase productivity, strengthen resilience, and reduce GHG emissions. The Program will promote the adoption of climate-smart agricultural practices by farmers, including efficient irrigation practices, alternate wet and dry rice cultivation (AWD) method, and the use of drought, cold, and submergence and salinity tolerant seed varieties. Improved climate-resilient and post-harvest storage facilities at the local level will be energy-efficient and/or using renewable energy. Thus, carbon emission due to use of electricity produced from burning fossil fuel. Similarly, there would be less emission of methane gas from decayed agro products.
- Sustainability of production systems and management of natural resources program of the PforR will focus on
 - (1) managing the soil health by promoting soil test-based application of fertilizers and scaling up integrated nutrient management (INM) and integrated plant nutrient system (IPNS) where organic and inorganic fertilizers are applied together,
 - (2) enhancing water conservation and productivity by promoting rain water harvesting and storage in Low Density Polythene (LDPE)-lined tanks for efficient utilization. Water use efficiency will be achieved through energy-efficient sprinkler, drip and micro-irrigation in water scarce areas specially in Boro (winter) season,
 - (3) managing biodiversity through the conservation of land races of different crops and promotion of high value, elite land races. These land races will be utilized for increasing crop production through acclimatization under changing climate; and
 - (4) development of agro-meteorological services. Under this intervention, provision will be made for regular weather forecasting and providing farmers' advisory services for

agricultural practices such as sowing, irrigation, pest management and harvesting through Radio and Television by the Farmers' Information and Advice Center (FIACs).

Promoting Post-Harvest Management, Agro-Processing, and Food Safety Facilities will reduce
post-harvest losses of crops while increasing food safety and quality. The Program will finance the
establishment of testing laboratories for the analysis of pesticide residues, create an innovation
fund for promoting innovations in post-harvest technology will assist in reducing pollution from
agro-fields.

• 2.2 Social risks and opportunities of the Program

2.2.1 Potential social challenges and risks

- Influx of migrant workers at the sites for construction of small and medium scale infrastructures may put moderate pressure on the local market and civic facilities.
- There are nominal risks of social rift and misconducts of the labor force in the form of drug abuse, gambling, prostitution, and the associated risks of sexually transmitted diseases (STDs), genderbased violence (GBV) including low risks of sexual exploitation and abuse (SEA) and sexual harassment (SH).
- Labor sheds are likely to be co-located with the infrastructure. Renting of houses by the staff and workers when separate facility at the work site is not available will have moderate risk on the local residents in the form of theft, noise, and movement of unknown persons in the locality.
- There might be adverse effects on the crop harvested and felling of fruit bearing trees and trees with timber value near the construction sites.
- The contractors or their representatives may employ child labor at a lower wage to reduce construction cost and increase profiteering.
- Traffic congestion may result from stockpiling of construction material by the sides of roads and increased movement of people and vehicles carrying material and equipment.
- Technological gap could create hindrance in attaining maximum benefit from Program interventions.
- Involuntary displacement of tribal peoples (some of whom might have indigenous status) will be avoided completely. However, meaningful consultation will be undertaken with the tribal communities where Program activities will cover areas inhabited by them.
- Over use of inputs and lower income for the farmers/growers owing to non-coordinated production plan of the crops.
- Risk of LOWER or NO production due to inappropriate weather or market forecasting.
- Inappropriate technology selection may hamper production and productivity.

2.2.2 Potential social benefits and opportunities

There are many potential social benefits and opportunities of the Program. Some of the opportunities include the following:

 Crop Diversifications and sustainable production of safe and nutritious food would promote rice productivity through greater use of HYV, hybrid, and biofortified seed varieties as well as

- introducing system or rice intensification (SRI) including alternate wetting and drying practices and contribute to increasing nutrition and rice productivity in a sustainable manner.
- Climate-smart agricultural activities would allow good harvest under critical weather condition and intrusion of salinity in the farmlands in the coastal areas.
- Farmers can free up arable land for harvesting to high-value products. These changes would
 economically benefit the farmers through satisfactory cost -benefit ratio along with ensuring
 food security at grassroot level through achieving target crop production.
- Through production zoning following demand factors, a balanced Boro, Aus and Aman rice production would considerably reduce the incidence of food crises that occur in certain regions before the harvesting season; thus, food security would be enhanced at the local levels.
- Promoting soil test-based application of fertilizers and scaling up integrated nutrient management (INM) and integrated plant nutrient system (IPNS) would reduce the procurement cost of the inorganic fertilizers. This way, while the soil would get appropriate nutrient, cost of harvesting would also reduce that would be advantageous for the farmers.
- The promotion of protected vegetable cultivation, the adoption of climate-smart agriculture practices and reduction of post-harvest losses by strengthening storage, processing, and marketing infrastructure would benefit the farmers having reduced wastage of their products, and inter-district agro-product businessmen in buying product from the growers at a competitive price. This way the consumers would also be able to buy agro-products at a rational price.
- This would also increase Export opportunity with value-added agro processed safe food items where the Private sector could take a leading role.
- Through linkage to markets that pay a premium price for quality products, farmers would get higher price for their harvest. This economic upliftment would also improve their social status.
- Diversified products and income sources would increase resilience of the farmers/agroproduct growers to climate change by protecting against climate risks and providing a continuous income stream throughout the year. This would also create more employment amongst the unemployed local population including youth and women.
- The Program will support setting up of a digital agriculture information management system. In addition, in 50 percent of Upazilas, the Program will contribute to the establishment of "Upazila-level technology demonstration centers" for on-farm technology demonstration. Local farmers would benefit from these centers and would put to practice their newly acquired knowledge in harvesting.
- Regular weather forecasting and providing farmers' advisory services for agricultural practices such as sowing, irrigation, pest management and harvesting through Radio and Television by the Farmers' Information and Advice Center (FIACs) would educate farmers in taking the right decisions for harvesting.
- Mechanization in the Agriculture sector would increase productivity, reduce production costs, and address labor scarcity constraints effectively.
- Issuance of 'SMART Card' to the farmers would enable them to have access to credit from the participating scheduled banks, accessing input from dealers, and acquiring market linkage information including agro-meteorological and climate advisory services (e.g., forecasts, planting times, pests).
- o Adoption of climate-smart agricultural and efficient irrigation practices, alternate wet and

dry rice cultivation (AWD) method, and the use of drought, cold, and submergence and salinity tolerant seed varieties by farmers would raise harvest production, and improve economic condition through better intake of nutritional food beside improving food security at the national level.

- Through public-private partnerships post-harvest management, agro-Processing, and food safety facilities would be promoted under Program activities. The Program will also finance the testing laboratories for the analysis of pesticide residues and create an innovation fund in post-harvest and processing technologies such as threshing and sorting facilities, energy-efficient multi-chamber cold storage facilities, irradiation centers, metal silos, and packing houses.
- The Youth (men and women) would be supported through the Program to engage in the agrifood supply chain through the establishment of 500 Customs Hiring Services of Farm Equipment. Besides, 10,000 youth (50% of which will be women) would be trained to engage in agribusinesses, input and service provision to farmers, and agro-tourism in special agroecological zones such as hill tracts, haor, orchards in dry zone areas. Thus, unemployed youth in the country would be benefited in choosing a career for themselves.
- The Program will support research in agricultural universities (such as BAU, SAU, SeAU, and BSMRAU) while creating synergies with other agricultural research institutions.
- The institutes of the National Agricultural Research System will be equipped with advanced technologies, and their staff's capacity will be strengthened, including their reaching out to farmers.
- The Program will develop a framework for the strengthening of farmers' organizations, a
 policy framework to foster private-sector's participation in the seeds system as well as in the
 areas of agricultural research, innovation, and extension, and climate resilience building in
 the sector which would benefit the farmers directly.
- The Program would renovate existing wholesale markets in a fashion that these are climate-resilient. Farmers and people involved with agro business would be benefitted from these.
- Unskilled labor force of the locality including women can find jobs at the farmlands and improve their economic condition. This will also assist in skill development of the locally hired unskilled workers hired to work at the construction site.
- Local residents can rent out fallow private land and vacant/unused homestead near the construction site to the Contractors involved with construction.
- Sustained interaction among various parties involved with the implementation of the Program interventions MoA/DAE representatives including Block Supervisors, contractors and their representatives, and the local leadership and business community of the area—will foster healthy relationship amongst all and upheld community interest. This would also work as an effective grievance redress mechanism (GRM).
- It will enhance 'gender mainstreaming' by creating equal opportunity for the local unemployed women would find jobs at the farmland and construction sites, thus improving their financial condition.
- No social conflict is envisaged from the Program. Every stakeholder involved would benefit immensely upon completion of the Program.

MoA / DAE would ensure screening of all potential construction sites to identify E&S risks and likely impacts. MoA and other relevant IAs will ensure that relevant stakeholders are consulted with at identification, design, implementation, monitoring and evaluation of the Program activities including any civil works.

SECTION III: ASSESSMENT OF BORROWER'S ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

• 3.1 Description of borrower's environmental and social management systems

Bangladesh has several policies, instruments, and laws that support E&S management under development projects and the E&S assessment processes. The Ministry of Environment, Forest, and Climate Change (MoEFCC) is responsible for ensuring sustainable environment and optimal management of forests. The Department of Environment (DoE) has been placed under the MoEFCC as its technical wing and is statutorily responsible for the implementation of the Environmental Conservation Act (ECA) 1995 and Environmental Conservation Rules (ECR) 1997. This section describes the existing ESMS of the GoB and MoA, an overview of the policy and legal framework, and MoA's capacity to effectively manage the E&S risks and impacts expected from the Program in response to the E&S Core Principles for PforR.

The ESSA reviewed the existing regulations and policies, their legal and practical applicability at the Program level as well as the institutional capacity of MOA, DAE, DAM, BARC, BARI, BRRI and BMDA and the effectiveness of implementation in practice. The key tenets of the various applicable policies are detailed in the following subsections. It may be noted that from amongst the IAs, BARC, BARI and BRRI are research organizations and these organizations mostly focus on targeted research for agricultural enhancement and interact with related scholars and researchers in respective fields only and has limited direct exposure to the farmers' community at large.

3.1.1 Policy and legal framework

The GoB's relevant laws, policies, instruments etc. are deemed adequate for protection, safety, and social security; inclusiveness of the populace; and conservation of environmental resources although enforcement of MoA/IAs capacity needs to be improved. These are presented in subsequent paragraphs.

Bangladesh Environmental Conservation Act (ECA) 1995, amended 2002

This umbrella act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. It is currently the main legislative framework document relating to environmental protection in Bangladesh. The provisions of the act authorize the Director General of the Department of Environment (DoE) to undertake any activity that is deemed fit and necessary to conserve and enhance the quality of environment and to control, prevent, and mitigate pollution. The main highlights of the act are as follows:

- Declaration of ecologically critical areas
- Obtaining of environmental clearance certificate (ECC)
- Regulation for vehicles emitting smoke that is harmful for the environment
- Regulation of development activities from environmental perspective
- Promulgation of standards for quality of air, water, noise, and soil for different areas and for different purposes
- Promulgation of acceptable limits for discharging and emitting waste
- Formulation of environmental guidelines relating to control and mitigation of environmental pollution and conservation and improvement of environment.

Environment Conservation Rules (ECR) 1997 and subsequent amendments

ECR 1997 is the first set of rules promulgated under the ECA 1995. Among other things, these rules set (a) the national environmental quality standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust, and so on; (b) requirement for and procedures to obtain environmental clearance; and (c) requirements for initial environmental examination (IEE)/environmental impact assessment (EIA) according to categories of industrial and other development interventions. ECR 1997 contains the drinking water quality standards which need to be maintained while providing water supply to workers. Under the ECR, projects are classified as 'Green', 'Orange A', 'Orange B', and 'Red' to determine the level of environmental assessment (EA) required.

The act was amended in 2006 (SRO No. 175-Act/2006 dated August 29, 2006) on collection and recycling of used/nonfunctional batteries for conservation of environment, improving environmental standard and control and prevention of environmental pollution. According to this amendment, no recycling of battery will be permitted without environmental clearance of the DoE. This also restricted the improper disposal of used batteries or any parts of used battery in open place, water bodies, waste bins, and so on. All used batteries must be sent to the DoE-approved battery recycling industry at earliest convenience. No financial transaction was allowed for used and nonfunctional batteries. However, the act was amended on the same issue again in 2008 (SRO No. 29-Act/2008 dated February 11, 2008) to allow financial transaction on mutually agreed fixed cost.

Water Act 2013

The Water Act 2013 mentions that no person or organization shall, without permission of appropriate authority, stop natural flow of any water course or create obstacles to such flow or divert or attempt to divert the direction of any water course by constructing any structure, whether it is on the bank or not, of any water source, or by filling any water source or by extracting sand or mud from any water source.

Bangladesh Biosafety Rules 2012

The government of Bangladesh published Bangladesh Biosafety Rules (BR), 2012, which provides regulations on the approval process for genetically engineered products developed domestically or by a third country. The provisions of the Guidelines shall be applicable in case of controlling the Genetically Modified Organism or products and their harmful and adverse impacts on the environment.

According to BR, 2012, all GE products need to be approved before they can be imported or sold domestically within Bangladesh. BR, 2012 notes that the Ministry of Environment and Forests needs to follow the Biosafety Guidelines of Bangladesh, 2007 in approving any biotech product.

It also provides other information such as labeling and fines that may be levied against parties who harm the environment or ecosystem. Although not notified to the World Trade Organization (WTO), BR, 2012 was published on September 2, 2012.

Revised Bio-safety Guidelines 2018

Biosafety guidelines are applicable to all research and development activities of modern biotechnology as defined in the Cartagena Protocol on Biosafety conducted in laboratories of the government research institutes, state enterprises, universities, international organizations located in Bangladesh, private companies or non-governmental organizations. It applies to laboratory and field

trial, trans-boundary movement, transit, handling and use of all GMOs that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.

Activities not regulated by the Guidelines

The following activities are excluded from the guidelines: (a) Research, development and promotional or commercialization activities involving organisms within the country that result from natural reproduction or micro propagated products derived through tissue culture or the use of traditional breeding practices. (b) The movement of non-living products of modern biotechnology such as isolated nucleic acids or proteins or lyophilized or other killed biological materials for the purpose of research and development. (c) Such other activities that may in future be declared to be excluded by the National Committee on Biosafety (NCB).

• Objectives of Guidelines

In accordance with the precautionary approach contained in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Guideline is to ensure an adequate level of protection for the environment and human health during the conduct of contained research, field trials, safe transfer, handling, use and trans boundary movement of GMO as part of modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human and animal health. On the basis of the precautionary principle, the Guidelines provide a framework for the following aspects: (a) Provide the framework to ensure safety of the developers and end-users of modern biotechnological products. (b) Promote the development and enforcement of regulations in harmony with national priorities and international obligations. (c) Foster a favorable climate for developing and accelerating innovation and for adopting sustainable biotechnology products and processes. (d) As necessary, develop materials in support of the objective of ensuring the safe handling transit and use of GMOs, including standard operating procedures, standards of best practice for record keeping and data recording, monitoring and inspection of regulated activities or other such guidance. These guidelines cover aspects of risk assessment and safety requirements needed for undertaking (a) Laboratory work, (b) Field trial and (c) Commercial use, involving i) Microorganisms, ii) Plants, iii) Fish and aquatics and iv) Animals. Guidelines for laboratory work specify the experiments to be categorized as belonging to different biosafety levels reflecting work bearing minimal risk, work bearing low risk, work bearing considerable risk and work bearing high risk and what precautionary measures should be taken to avert such risk.

National Agricultural Policy, 1999

The overall objective of the National Agriculture Policy is to make the nation self-sufficient in food through increasing production of all crops including cereals and ensure a dependable food security system for all. One of the specific objectives of National Agricultural Policy is to take necessary steps to ensure environmental protection as well as environment-friendly sustainable agriculture. Through increased use of organic manure and strengthening of the integrated pest management program. The policy also suggests creating awareness so that the chemical fertilizers and pesticides used for increased crop production do not turn out to be responsible for environmental pollution. Water logging and salinity are identified as one of the serious problems in some parts of the country including the coastal areas for agricultural activities and environmental damage. The policy recommends for crop rotation and salt tolerant crop varieties.

National Land Use Policy, 2001

The GoB has adopted National Land Use Policy, 2001. The salient features of the policy objectives relevant to the Program are as follows:

- To prevent the current tendency of gradual and consistent decrease of cultivable land for the production of food to meet the demand of expanding population
- To ensure that land use is in harmony with natural environment
- To use land resources in the best possible way and to play supplementary role in controlling the consistent increase in the number of landless people and toward the elimination of poverty and the increase of employment
- To protect natural forest areas and prevent river erosion and destruction of hills
- To prevent land pollution
- To ensure the minimal use of land for construction of both government and nongovernment buildings.

National Fisheries Policy, 1999

The National Fisheries Policy, 1999 was formulated following review and intent of the East-Bengal Protection and Conservation of Fish Act 1950, which was updated by the Protection and Conservation of Fish (Amendment) Ordinance 1982 and further refined by the Protection and Conservation of Fish (Amendment) Act 1995. These Acts and ordinance provide provisions for the protection and conservation of fish in fresh water and brackish water bodies.

The Fisheries Policy highlights the need to conserve fish breeding grounds and habitats. It intends to promote fisheries development and conservation in all water bodies. The project should consider these policies to protect the habitats, migration and connectivity of fish and fisheries resources around the project area. Measures to reduce any potential negative impacts on local fish populations will be incorporated into all stages of the Project.

The Protection and Conservation of Fish Act (1950)

This Act provides power to the government to: make and apply rules to protect fisheries; prohibit or regulate pollution to the water bodies.

Protection and Conservation of Fish Rules (1985)

Section 6 states, "No person shall destroy or make any attempt to destroy any fish by poisoning of water or the depletion of fisheries by pollution, by trade effluents or otherwise in inland waters.

Biodiversity Act, 2017

It provides for creating the National Committee and the Biodiversity Management and Surveillance Committees at local levels (i.e., Districts, Upazilas, Municipalities, and Unions). In general, all these committees are mandated to assist the Government in implementing the National Biodiversity Strategy and Action Plan (NBSAP) and visiting the biodiversity enriched areas in their respective territories; and monitoring the progress of implementation NBSAP.

The Ground Water Management Ordinance (1985)

Describes the management of ground water resources and licensing of tube wells.

Bangladesh Wildlife (Protection and Preservation) Act 2012

The Act (Schedule 1 and 2) protects 1,307 species of plants and animals, including 32 species of amphibian, 154 species of reptile, 113 species of mammal, 52 species of fish, 32 species of coral, 137 species of mollusk, 22 species of crustacean, 24 species of insect, six species of rodent, 41 species of plant and 13 species of orchid. Of these, eight amphibian, 58 reptile, 41 bird, and 40 mammal species are listed as endangered in the IUCN Red Data Book (2000, updated in 2015).

Public Procurement Rule (PPR) 2008

This is the public procurement rule of Bangladesh, and it shall apply to the procurement of goods, works, or services by any government, semi-government or any statutory body established under any law. The rule includes adequate measures regarding the 'safety, security, and protection of the environment' in the construction works. This clause states that mainly, the contractor shall take all reasonable steps to (a) safeguard the health and safety of all workers on the site and other persons entitled to be on it and keep the site in an orderly state and (b) protect the environment on and off the site and avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise, or other causes arising as a consequence of the contractor's methods of operation.

Bangladesh Labor Act 2006 (amendment 2018)

Labor law of Bangladesh was originally framed in 2006 and was radically amended in 2013 to protect worker's right and increase productivity. The law was later amended in 2018. The key features of the act are described below.

- Classification of workers according to nature and condition of work: apprentice, *badli*, casual, temporary, probation, and permanent.
- The act outlined different types of leaves and holidays of the worker.
- It prescribed the punishment for conviction and misconduct. The act also described the procedure of punishment as well.
- In chapter VI of this act safety precautions regarding explosive or inflammable dust and drugs, protection of eyes and protection against fire, works with cranes, and other lifting machinery are described elaborately.
- In chapter VIII provisions of safety measures such as the appliance of first aid, maintenance of safety record book, children room, and housing facility are illustrated.
- The act also strictly prohibits the employment of children in any occupation or establishment.

Bangladesh National Building Code

The basic purpose of this code is to establish minimum standards for design, construction, quality of materials, use and occupancy, location and maintenance of all buildings within Bangladesh to safeguard, within achievable limits, life, limb, health, property, and public welfare. The installation and use of certain equipment, services, and appurtenances related, connected, or attached to such buildings are also regulated herein to achieve the same purpose.

Chapter 3, Part 7, of the code clarifies the issue of safety of workmen during construction and, with relation to this, sets out the details about the different safety tools of specified standard. In relation to the health hazards of the workers during construction, this chapter describes the nature of the

different health hazards that normally occur in the site during construction and at the same time specifies the measures to be taken to prevent such health hazards. According to this chapter, exhaust ventilation, use of protective devices, medical checkups, and so on are the measures to be taken by the particular employer to ensure a healthy workplace for the workers.

Section 1.4.1 of Chapter 1, Part 7, of the Bangladesh National Building Code states the general duties of the employer to the public as well as workers. According to this section "All equipment and safeguards required for the construction work such as temporary stair, ladder, ramp, scaffold, hoist, run way, barricade, chute, lift etc. shall be substantially constructed and erected so as not to create any unsafe situation for the workmen using them or the workmen and general public passing under, on or near them."

Chapter 1, Part 7, of the Bangladesh National Building Code clearly sets out the constructional responsibilities according to which the relevant authority of a particular construction site shall adopt some precautionary measures to ensure the safety of the workmen. According to Section 1.2.1 of Chapter 1, Part 7, "in a construction or demolition work, the terms of contract between the owner and the contractor and between a consultant and the owner shall be clearly defined and put in writing. These however will not absolve the owner from any of his responsibilities under the various provisions of this Code and other applicable regulations and by-laws. The terms of contract between the owner and the contractor will determine the responsibilities and liabilities of either party in the concerned matters, within the provisions of the relevant Acts and Codes (e.g.) the Employers' Liability Act, 1938, the Factories Act 1965, the Fatal Accident Act, 1955 and Workmen's Compensation Act 1923." (After the introduction of the Bangladesh Labor Act 2006, these acts have been repealed.)

To prevent workers falling from heights, the code in Section 3.7.1–3.7.6 of Chapter 3, Part 7 sets out the detailed requirements on the formation and use of scaffolding. According to Section 3.9.2 of the same chapter "every temporary floor opening shall either have railing of at least 900 mm height or shall be constantly attended. Either a railing with toe board or a hinged cover shall guard every floor hole. Alternatively, the hole may be constantly attended or protected by a removable railing. Every stairway floor opening shall be guarded by railing at least 900 mm high on the exposed sides except at entrance to stairway. Every ladder way floor opening, or platform shall be guarded by a guard railing with toe board except at entrance to opening. Every open sided floor or platform 1.2 meters or more above adjacent ground level shall be guarded by a railing on all open sides except where there are 39 entrances to ramp, stairway or fixed ladder. The precautions shall also be taken near the open edges of the floors and the roofs."

The Prevention of Cruelty against Women and Children Act 2000

The Prevention of Cruelty against Women and Children Act 2000 (also referred to as the Prevention of Women and Child Repression Act 2000) was amended in 2003. This Act was formulated to protect women and children from heinous crimes such as rape, dowry, grievous injury. The Act makes provision for the punishment of sexual abuse and sexual harassment. The law also has put restrictions on the media so that the victims' privacy is protected. The introduction of the concept of the safe custody is one of the most important features of the law. This act introduced capital punishment in cases of rape, and grievous injuries.

The important features of the Act are:

- Speedy investigation and trial of cases will be held in tribunals and all crimes under the ambit of the law are non-bailable, with few exceptions;
- A summary tribunal titled Women and Children Repression Tribunal would be formed for every district town to dispose of the related cases;
- The tribunal will complete the trial process within 180 days;

- The investigation should be completed within 60 days of the order by a magistrate or filing of the case;
- Under a provision of the law, a rapist will pay for the upkeep of a child born as consequence of rape.

Constitution of the People's Republic of Bangladesh

The fundamental rights under the constitution indicate the general guidelines for a policy on resettlement/rehabilitation of citizens adversely affected (whatever be the mechanism) due to any activity of the state.

Constitutional status of women

Article: 10

Steps shall be taken to ensure participation of women in all spheres of national Life.

The contents of Article 15 are particularly important for the squatters (floating people migrating from rural areas to the cities/towns looking for jobs and/or landless people that construct shanty huts and small temporary business facilities in government land for survival).

(i) Social security to widows:

Article: 15(d):

Under the heading of Fundamental Principles of State Policy, states that where the state accepts a fundamental responsibility towards raising the standard of living of the people, it specifically undertakes responsibility for providing social security to inter alia, widows.

(ii) Free and compulsory Education:

Article: 17

The State shall adopt effective measures for the purpose of:

- a. Establishing a uniform, mass-oriented and universal system of education and extending free and compulsory education to all children to such stage as may be determined by law.
- b. Relating education to the needs of society and producing properly trained and motivated citizens to serve those needs.
- c. Removing illiteracy within such time as may be determined by law.

(iii) Public health and morality:

Article: 18

- a. The State shall regard the raising of the level of nutrition and the improvement of public health as among its primary duties, and in particular shall adopt effective measures to prevent the consumption, except for medical purposes or for such other purposes as may be prescribed by law, of alcoholic and other intoxicating drinks and of drugs which are injurious to health.
- b. The State shall adopt effective measures to prevent prostitution and gambling.

The Third section of the Bangladesh Constitution contained provisions for fundamental rights. Rights and opportunities for women (or rights relevant to them) are the following:

(iv) Equal opportunity for all citizens:

Article 19(1). Sub-section 2

Equal opportunity for all citizens was ensured by Article 19(1). Sub-section 2 of the same Article required the state to take effective measures to remove socio-economic discrimination.

Article 20 of the constitution (Work as a right and duty) states the following:

- a. Work is a right, a duty and a matter of honor for every citizen who is capable of working, and everyone shall be paid for his work on the basis of the principle "from each according to his abilities to each according to his work."
- b. The State shall endeavor to create conditions in which, as a general principle, persons shall not be able to enjoy unearned incomes, and in which human labor in every form, intellectual and physical, shall become a fuller expression of creative endeavor and of the human personality.

Article 27: equality of all citizens before law and equal protection under law.

Article 28(1): no discrimination on grounds only of religion, race, caste, sex or place of birth.

Article 28(2): equal opportunity for men and women in all spheres of state and public live.

Article 28(3): no discrimination on grounds only of religion race, caste, sex or place of birth in providing access to any place of public entertainment or resort, or admission to any educational institution.

Article 29(1): equal opportunity for all citizens in respect of employment or office in the service of the Republic.

Article 65(3): Women are free to contest election from any constituency. But originally 15 seats were reserved for women; the number has been raised to 30 and thereafter 45 in 2004.

(v) Equality before law:

Article 27: Equality before law

All citizens are equal before law and are entitled to equal protection of law.

(vi) Discrimination on grounds of religion, etc.

Article 28:

- a. The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex or place of birth.
- b. Women shall have equal rights with men in all spheres of the State and of public life.
- c. No citizen shall on grounds only of religion, race, caste, sex or place of birth be subjected to any disability, liability, restriction or condition with regard to access to any place of public entertainment or resort, or admission to any educational institution.
- d. Nothing in this article shall prevent the State from making special provision in favor of women or children or for the advancement of any backward section of Citizens

(vii) Inequality of opportunity in public employment:

Article: 29

- a. There shall be equality of opportunity for all citizens in respect of employment or office in the service of the Republic.
- b. No citizen shall, on grounds only of religion, race, caste, sex or place of birth, be ineligible for, or discriminated against in respect of, any employment or office in the service of the Republic.
- c. Nothing in this article shall prevent the State from:
 - 1. Making special provision in favor of any backward section of citizens for the purpose of securing their adequate representation in the service of the Republic.

- 2. Giving effect to any law which makes provision for reserving appointments relating to any religious or denominational institution to persons of that religion or denomination.
- 3. Reserving for members of one sex any class of employment or office on the ground that it is considered by its nature to be unsuited to members of the opposite sex.

Article 40: Freedom of profession or occupation

It states that "Subject to any restrictions imposed by law, every citizen possessing such qualifications, if any, as may be prescribed by law in relation to his profession, occupation, trade or business shall have the right to enter upon any lawful profession or occupation, and to conduct any lawful trade or business." This means that every citizen has the right to practice any lawful occupation, which implies that anything that impedes such right (a) should not be done or (b) there should be supplementary measures to make good the losses incurred by the citizen. Resettlement and rehabilitation of adversely affected people due to infrastructure projects clearly falls within this requirement for supplementary measures.

Article 42, Rights to property, states the following:

- a. Subject to any restrictions imposed by law, every citizen shall have the right to acquire, hold, transfer or otherwise dispose of property, and no property shall be compulsorily acquired, nationalized or requisitioned save by authority of law.
- b. A law made under clause (1) shall provide for the acquisition, nationalization or requisition with compensation and shall either fix the amount of compensation or specify the principles on which, and the manner in which, the compensation is to be assessed and paid; but no such law shall be called in question in any court on the ground that any provision in respect of such compensation is not adequate.
- c. Nothing in this article shall affect the operation of any law made before the commencement of the Proclamations (Amendment) Order, 1977 (Proclamations Order No. I of 1977), in so far as it relates to the acquisition, nationalization or acquisition of any property without compensation.

Thus, according to subclause 2, no law with provision of compensation for acquisition of land can be challenged in a court on the ground that such compensation has been inadequate.

The Right to Information Act, 2009

The Act. No. XX of 2009, an Act to make provisions for ensuring free flow of information and people's right to information. Whereas freedom of thought, conscience and speech is recognized in the Constitution of the People's Republic of Bangladesh as one of the fundamental rights and right to information is an inalienable part of freedom of thought, conscience and speech; and Whereas all powers of the Republic belong to the people, and it is necessary to ensure right to information for the empowerment of the people; and Whereas if the right to information of the people is ensured, the transparency and accountability of all public, autonomous and statutory organizations and of other private institutions constituted or run by government or foreign financing shall increase, corruption of the same shall decrease and good governance of the same shall be established; and Whereas it is expedient and necessary to make provisions for ensuring transparency and accountability in all public, autonomous and statutory organizations and in other private institutions constituted or run by government or foreign financing. Here "information" includes any memo, book, design, map, contract, data, log book, order, notification, document, sample, letter, report, accounts, project proposal, photograph, audio, video, drawing, painting, film, any instrument done through electronic process, machine readable record, and any other documentary material regardless of its physical form

or characteristics, and any copy thereof in relation to the constitution, structure and official activities of any authority. "Right to information" means the right to obtain information from any authority.

Right to information. —Subject to the provisions of this Act, every citizen shall have the right to information from the authority, and the authority shall, on demand from a citizen, be bound to provide him with the information.

Preservation of information. — (1) In order to ensure right to information under this Act, every authority shall prepare catalogue and index of all information and preserve it in an appropriate manner. (2) Every authority shall, within a reasonable time-limit, preserve in computer all such information as it thinks fit for preservation in computer, and shall connect them through a country-wide network to facilitate access to information. (3) The Information Commission shall, by regulations, frame instructions to be followed by every authority for the preservation and management of information and all authority shall follow the instructions.

National Integrity Strategy 2012

Government of Bangladesh has adopted the National Integrity Strategy (NIS) in October 2012 with the goal of establishing good governance in state institutions and in the society. This strategy provides action program for state institutions and non-state social institutions like political parties, private sector business and industries, NGO and civil society, family, educational institution and media.

State institutions rendering public services are made responsible under the NIS to respond to complaints and grievances of the citizen and record their feedback in regular mass hearing sessions at convenient locations to enable spontaneous participation of citizens without any fear of retaliation.

The Acquisition and Requisition of Immovable Property Act 2017

The Acquisition and Requisition of Immovable Property Act (ARIPA) 2017 Act requires that compensation be paid for (a) land and assets permanently acquired (including standing crops, trees, houses) and (b) requisition of land. The act also provides for the acquisition of properties belonging to religious organizations such as mosques, temples, pagodas, and graveyards if they are acquired for public interest. The Ministry of Land (MOL) has the overall responsibility of enforcing land acquisition. The MOL delegates some of its authority to the Commissioner at the divisional level and to the Deputy Commissioner (DC) at the district level. DCs are empowered by the MOL to process land acquisition and pay compensation to the legal owners of the acquired property. The burden to establish his/her legal rights to the acquired property to be eligible for compensation under the law is on the landowner. The DC is empowered to acquire a maximum of 50 standard bigha (16.50 acres) of land without any litigation for which s/he would obtain the approval of the Divisional Commissioner. Acquisition of land exceeding 16.50 acres has to be approved by the central land allocation committee headed by the prime minister of Bangladesh. In the case of acquiring khas land (government-owned land), the land will be transferred through an inter-ministerial meeting following an acquisition proposal submitted to the DC or the MOL.

Under the ARIPA 2017, the DC determines the value of the acquired assets as at the date of issuing the notice of acquisition under Section 4(1) of the act. DCs thereafter enhance the assessed value by 200 percent for land and another 100 percent premium for loss of standing crops, structures, and income due to compulsory nature of the acquisition. The compensation such determined is called the cash compensation under law. If the land acquired has standing crops cultivated by a tenant (bargadar) under a legally constituted written agreement, the law requires that compensation money be paid in cash to the tenants as per the agreement. Households and assets moved from land already acquired in the past for project purposes and/or government khas lands are not included in the acquisition proposal and therefore excluded for compensation under the law. Lands acquired for a particular public purpose cannot be used for any other purpose. ARIPA 2017, Section 4 (2) also facilitates the

private organizations to request the Government to acquire the land for their development activities. Furthermore, the new act under its Section 15 provides for the acquisition of entire houses/buildings if their owners request to acquire the entire house or building against partial acquisition. The Government is obliged to pay compensation for the assets acquired.

The ARIPA 2017 is applied for involuntary acquisition of land for development projects across the country except the three hill districts (Rangamati, Bandarban and Khagrachari), where the Chattogram Hill Track (Land Acquisition) Regulation 1958 (CHTR 1958), amended in 2018) is appliable, in addition to ARIPA requirements.

GoB 8th Five-year Plan (2021–2025)

The 8th Five-year Plan (FYP) will focus on improving the investment climate for domestic and foreign private investment to offset the lackluster private sector investment performance in the 7FYP. The short-term unemployment resulting from COVID-19 including retrenchment of overseas workers will present an immense challenge in the very first year of the 8FYP. Job creation accordingly will be a top priority of the 8FYP.

The 8FYP will put stronger focus on these aspects of power and energy sector development. The 8FYP power and energy strategy will continue the ongoing good work and strengthen the strategy in several areas. First, the Power Sector Master Plan (PSMP) 2016 will be updated and power expansion programs will be based on updated demand projections, better use of existing capacity, and selection of least-cost options for new generation. Second, emphasis will be placed on renewable energy through proper fuel-oil pricing and other incentives. Third, the power and energy sector finances will be improved through institutional reforms and pricing policies. Fourth, energy conservation and efficiency improvements will be promoted through proper operation and maintenance of power facilities, adoption of energy-efficient technology, and pricing and taxation of energy consumption.

3.1.2 Institutions for environmental and social management systems

Ministry of Environment, Forest and Climate Change (MoEFCC)/Department of Environment (DoE)

The DoE under the MoEFCC is the main environmental regulation and enforcement agency. Under the provision of the ECA 1995, it is responsible for awarding ECCs to development projects, monitoring compliance and enforcement of environmental standards, preventing activities that are likely to cause environmental degradation, and carrying out various other advisory and research activities. Wide powers have been given to the Director General of the DoE by the ECA 1995, such as the power to do anything he/she considers necessary to meet the objectives of the act including direct immediate closure of any polluting industrial plant and monitoring of environmental quality standards. The DoE is also mandated to coordinate the activities of any authority or agency (including other line ministries or their respective departments) relating to the adherence to basic principles of ECA 1995 and ECR 1997. DOE's vision is to ensure sustainable environmental governance for achieving high quality of life for the benefit of present and future generation. DOE's mission is to help secure a clean and healthy environment for the benefit of present and future generations:

- Through the fair and consistent application of environmental rules and regulations.
- Through guiding, training, and promoting awareness of environmental issues; and
- Through sustainable action on critical environmental problems that demonstrate practical solutions, and that galvanize public support and involvement.

Planning Commission

The Bangladesh Planning Commission is the central planning organization of the country. It determines objectives, goals, and strategies of medium and short-term plans within the framework of long-term perspective and formulates policy measures for the achievement of planned goals and targets. Its activities include the following elements of development planning:

- **Policy planning.** Determination of goals, objectives, priorities, strategies, and policy measures for development plans
- **Sectoral planning.** Identification of the role of the various sectors of the economy in the context of the plan objectives and goals
- Program planning. Formulation of detailed resource allocation to realize the plan objectives and goals
- **Project planning.** Appraisal of projects embodying investment decisions for the implementation of the sectoral plans
- Evaluation. Impact analysis of projects, programs, and plans on the people's living standard.

The Implementation Monitoring and Evaluation Division (IMED) under the Ministry of Planning Strategic Plan examines the link between financial allocations and equitable economic growth by defining and verifying the relationships between expenditure and eventual development results. Analysis of the performance of ministries and sectors against agreed targets is provided to Executive Committee of the National Economic Council, line ministries, and other concerned parties whenever necessary. Wherever possible IMED seeks to explain why sector or ministry performance targets have not been met by careful analysis of Program outcomes. This analysis is provided to the relevant bodies so that they can improve their performance if necessary. IMED evaluates the performance of MoA during and upon completion of a Program/project and provides necessary guidance to MoA for further improvement.

The Ministry of Agriculture (MoA)/Department of Agricultural Extension (DAE)

The MoA works for ensuring food security by increasing crop production and productivity. The Department of Agricultural Extension (DAE) works to develop opportunity plan for facilitating agricultural growth and development. The Department of Agricultural Extension's mission is to provide efficient and effective need-based extension services to all categories of farmer, to enable them to optimize their use of resources, in order to promote sustainable agricultural and socioeconomic development of Bangladesh. For this Program, the following Agencies under the umbrella of MoA would be directly involved. These are: DAE, DAM, BARC, BMDA, BADC, BARI, and BRRI). DAE would be the coordinating agency and all other agencies would feed DAE with all pertinent information for onward submission to MoA and the World Bank.

• 3.2 Assessment of borrower systems against core principles and planning elements

3.2.1 Assessment of existing policy and legal framework in relation to PforR principles

The GoB's legal policy framework on E&S impact management consists of a set of national policies, acts, strategies, directives, guidelines, and management frameworks. The existing government policy and legal framework on the management of social and environmental impacts generally reflects, to various extents, the following general principles of World Bank Policy on PforR Financing:

- Avoid, minimize, or mitigate against adverse impacts.
- Promote E&S sustainability in Program design.

Promote informed decision-making relating to a Program's E&S effects.

Two of the main objectives of the Bangladesh Environment Policy 2018 are to maintain ecological balance and overall development through protection and improvement of the environment and ensure environmentally sound development in all sectors. This has been done through establishment of dedicated institutions and regulatory framework, framing new laws and amending old laws to establish E&S management process and procedures and making the EA transparent and effective to mitigate the adverse effects of development on the natural and social resource base. The ECA 1995 and ECR 1997 is an umbrella environmental act and rule, respectively, in the country for the protection of natural environment. The ECA and ECR combined with other acts, policies, and guidelines (as discussed in the previous section) encompass most of the key principles defined in P4R Financing Policy and Directive. They provide guidance and directions for avoiding, minimizing, or mitigating potential adverse impacts on natural resources and important natural habitats. Worker health and safety during construction have also been addressed in a number of legislations and rules (Bangladesh National Building Code 2006, Labour Act 2013, Public Procurement Rule 2008, and so on).

The umbrella legislation ECA/ECR does not explicitly cover the process and procedures for E&S management regarding protection of public and worker safety against the potential risks associated with (a) occupational and community health and safety or (b) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Given that MoA/DAE and other IAs involved with PARTNER Program do not have a dedicated standard operating procedure (SOP)/Guideline developed to address the E&S management following the World Bank guidelines and latest government policies and acts including Labor Act 2006 (amendment in 2018) and Labor Rules 2015, and so on and relevant new environmental policies, MoA may be advised to develop a generic ESMF for E&S management for the Program that would later act as a standard in addressing all Program and project related E&S management.

3.2.2 Assessment of the country environmental and social management system

Bangladesh's ESMS that apply to the PARTNER Program consists of national legal framework (laws, policies and guidelines) that are broadly consistent with World Bank E&S core principles on PforR Financing. However, some gaps do exist compared to the basic principles of World Bank Policy on PforR Financing as elaborated in the previous section. The Program ESMF to be developed at the early stage of Program implementation, would provide a clear institutional framework to MoA for monitoring E&S safeguard activities and carrying out E&S due diligence in accordance with World Bank Core Principles of PforR Financing on E&S management.

Environmental Elements

The environmental assessment and management process is planned to be governed by ECA 1995 and ECR 1997 beside safe practices followed by DAE. MoA/DAE and other IAs do not have a formal organizational setup to monitor environmental matters of the Program. Dedicated staffs tasked to monitor and manage environmental issues is sought by the IAs. However, there is also room for hiring environmental specialists/consultants in overall environmental management. MoA may plan to hire a non-governmental organization (NGO) with requisite experience in implementing E&S management and mitigation. Since the overall responsibility of environmental management lies with the IAs and DAE in particular, DAE needs to ensure that the consultants are carrying out their responsibilities properly. MoA developed ESMF could provide necessary guidance in this regard.

The environmental elements pertaining to the core principles of Program for Results Financing Policy are discussed below:

- (1) Early screening of potential effects. Environmental screening, as per ESA 1995 and ECR 1997, identifies the consequence of the proposed interventions of the Program in broader sense based on similar project /Program experiences, stakeholder's perceptions, and expert judgment, without having detailed investigation. Critical issues are also identified through screening, which needs detailed investigation. Based on the extent of environmental impacts, obtained from the environmental screening, the decision for further environment impact assessment will be taken.
- (2) Explicit assessment of potential induced, cumulative and transboundary impacts. As stated in the DoE EIA guidelines, the country system explicitly requires identification and prediction of the potential long-term and short-term direct and indirect environmental impacts in the Program's subproject site and its immediate surroundings: the scope of impacts include physical, biological, socioeconomic, and cultural environments. The impacts will be categorized qualitatively (insignificant, moderate, significant) to identify major impacts and relevant components during screening including transboundary impacts. However, since all the project interventions are going to take place within the geographical boundary of the country, transboundary impacts are not expected.
- (3) Responsiveness and accountability through stakeholder consultation. The EA system of the country does not explicitly require dissemination of information and stakeholder consultations at different stages of a project needing IEE or EIA. However, this gap could be filled by providing specific guidance in the Program ESMF to be developed during implementation. It is recognized that consultations with the key stakeholders will need to be carried out throughout the Program life. These will include consultations and liaison with communities and other stakeholders during all phases of the Program.
- (4) **Grievance redress measures.** The MoA would require establishment of GRM for attending Program related complaints and grievances, particularly related to redress for environmental issues such as pollution, poor yield as an improper intervention, and so on will be sought under the same mechanism. A separate grievance redress cell for environmental issues will not be required.
- (5) Early identification and screening of potentially important biodiversity and cultural resource areas. One of the screening criteria in the early phase of identification of areas for Program intervention should obtain information on historical or culturally important sites, and ecologically sensitive areas. So, the early identification and screening of potentially important biodiversity and cultural resource areas are incorporated in the screening process.
- (6) **Promotes community, individual, and worker safety.** OHS hazards highlights contractors' obligations, best practices for worker safety, accident prevention, and provision for safe water supply and sanitation services at the site.

The preceding discussion shows that the environmental policy, legal framework, and guidelines applicable to the proposed PforR are consistent with Program for Results Financing Policy and Directive. The MoA and DAE will develop E&S Guideline with the Program Implementation Plan (PIP) and subsequently a Program ESMF for screening and risk assessment procedures, impact mitigation methods and grievance redress mechanism (GRM)_and organize necessary institutional arrangement to bridge the gaps in the existing policy, legal and institutional framework.

Social Elements

As the Program involves promoting resilient production and marketing of high-value, safe, and nutritious food in Bangladesh, it will benefit all including the female-headed households, marginal groups, people living under the poverty line, landless persons, the mentally and physically disabled ones, women, youth and the individuals and communities/cooperatives involved with agriculture at large. During the social assessment, the farmers, agro machineries including tiller renters and their organizations, seed and fertilizer suppliers, individuals/entities involved with irrigation support at the private domain, agro-product sellers etc. will be consulted. The issues of concern are explained below:

- **Social screening.** The MoA/DAE needs to ensure that the proposed Program interventions do not cause any restriction in the adjacent community in terms of their liberty in choosing what to harvest, use of fertilizer and irrigation choices. The Program activities under any of the IAs will avoid acquisition of private land, conversion of land use and involuntary displacement of people.
- **Public/stakeholder consultation.** Consultation and community participation will be undertaken at Program's subproject identification, planning, design, implementation, and evaluation stages. Consultation and participation involve communities including tribal communities and other stakeholders, which will take place through interpersonal communications, focused group discussions (FGDs) and small and large community meetings. Additionally, radio broadcast and other media forms may be used to further disseminate information. The E&S section of the PIP will provide detailed guideline for community consultation with particular focus on the tribal peoples with indigenous status at the locations of Program intervention before every stage of the Program activities.

• 3.3 Assessment of borrower practices and performance records

From the discussion in the preceding sections, it is evident that the GoB's policy and legal framework are broadly aligned with the PforR principles on E&S management. The national systems and any gaps with the E&S core principles for PforR would be adequately addressed through the Program ESMF and the PIM that would have adequate guidance on issues like Gender, SEA/SH, labor influx, community health and safety and citizen engagement/GRM. The information obtained below are from review of documents, monitoring reports, and discussion with project officials and concerned stakeholders.

3.3.1 Management of environmental impacts at the operational level

MoA/DAE and other IAs are new to Program operation under PforR finance and E&S risks management associated with the Program activities. However, the Program interventions would have limited environmental and social risks and impact and the mitigation measures are known to the IAs acquired through implementation of World Bank financed projects. MoA may demand the IAs to prepare and submit quarterly E&S monitoring reports on specific interventions so that their performance in fulfilling E&S management guidelines could be gained through these reports.

All the IAs could assign a focal person for E&S risks management to report to the APD of the individual IA, who would then report to the PD, PCU at DAE for onward submission to the MoA and the World Bank.

The supervision and management staff at the IAs would undertake data collection on a daily basis/or as dictated by the Program E&S guideline under the PIP. The macro-level interactive meeting involves the PD, APDs and relevant focal points for E&S management and would be held as decided by the PD.

Experience from field of different infrastructure subprojects show that there are several gaps in complying with E&S Management criteria:

- Contractors are not bound by the agreement to produce site specific C-ESMP, which leads to poor E&S compliance at the field implementation level.
- Safety supervision at the site is often found lacking, resulting in checklists not being filled on
 a routine basis, safety banners often not being in place, infrequent site visit by the safety
 supervisor of the contractor, and so on. Negligence by the workers in using Personal
 protective gears (for example, not wearing gloves while cutting and working with electrical
 equipment, waist belts when working on heights) is frequent.
- Worker accommodation arrangement at the site is far from standard (lack of ventilation) and sanitation facilities are often not hygienic (lack of supply of handwashing soaps, unclean toilets, etc.).

One of the reasons for noncompliance is the lack of harmonization between contractors and subcontractors. Training and awareness activities have to be focused on relevant IA officials, focal points for E&S management, contractors, and subcontractors, their safety supervisors, and labor contractors for capacity-building. 3.3.2 Management of social impacts at the operational level

In the past, MoA has satisfactorily implemented the Bank Programs/projects and mitigated the social impacts. During the implementation of previous Programs/projects, MoA has managed the grievances effectively and adequately conducted consultations with all relevant stakeholders.

As the threat from COVID 19 still looms large, all concerned including staffs, contractors, subcontractors, labor force, farmers and other stakeholders of the Program should follow the health protocols for the COVID-19 management as enunciated by WHO, the World Bank and the GoB.

3.3.3 Assessment of the past performance of the implementing agencies in managing the E&S risks:

Experience from Research Projects: In the NATP projects, the research program is being coordinated by the Bangladesh Agricultural Research Council (BARC). Competitive Research Grant (CRG) and Program Based Research Grant (PBRG) research program are being implemented under the research program. The implementation of CRG has been completed in 2018 where 190 sub-projects were implemented. A total of 51 PBRG sub-projects covering different improved technologies of crop, livestock and fisheries are being implemented having satisfactory compliance with safeguard measures based on exclusion criteria and environmental screening matrix. All the PBRG sub-projects are categorized into three groups such as (i) climate-neutral; (ii) having climate co-benefits and (iii) direct climate-related. The PBRG sub-projects contributed in (i) conservation and improvement of biodiversity, (ii) identification of climate smart coastal ecosystems model, (iii) promotion of climate smart agriculture (CSA) technologies, (iv) improvement of soil health and organic matter content, (v) improvement of carbon sink, (vi) improvement of indigenous genetic resources of crops, fish and livestock, (vii) agroforestry model development, (viii) judicious use of chemical fertilizer and pesticides, (ix) protection of pond water from pollution, (x) reducing of health hazards & environmental pollution, (xi) reducing of GHG emission (xii) face future climate change impacts having climate co-benefits, Introduces of improved technologies Cultivation of improved variety/breed at farmers level Increases of production Promotion of women friendly improved technologies Production of Created employment opportunities of poor and marginal people Increases of income of the farmer Women and participation of women and ethnic peoples in improved technologies The analysis says that the innovated improved technologies contributed to increase production, productivity, including safe food production. The research opened diversified opportunities of the people including the poor, women, ethnics and other disadvantages people. Also create employment opportunity and increase income of the women, ethnics and other disadvantages people having impact on improvement of livelihood and food security that indicate to address the social safeguards. No PBRG sub-projects offered land acquisition, involuntary resettlement, encroachment of reserve forests, and use of prohibited pesticides. No complain has been received from any individuals, group or category of people and any other stakeholder associated with the subprojects. Moreover, all the Coordinators and Principal Investigators (PIs) of the PBRG sub-projects are well aware about to management of environmental and social safeguard issues in designing and implementation of the sub-projects that confirms the environmental and social safeguards compliances. The PBRG sub-projects have contributed to environmental conservation and improvement, increase of agricultural production, improve livelihood and food security of the poor households. The detailed analysis have identified the three key focus areas of PBRG sub-projects in regards to environmental and social safeguards compliance which are: (i) Environmental conservation and improvement; (ii) Climate co-benefit and (iii) Livelihood improvement.

Experience from Extension Projects: In the NATP, the PIU-DAE and other partners have been implementing diverse extension program in consideration of environmental and social safeguards. The details analysis evidently stated that the extension activities have contributed in climate change adaptation leads to environmental improvement and social safeguards issues. The major identified impact of the extension program are: (i) Adoption followed by dissemination of climate smart and climate resilience improved agricultural technologies; (ii) Adopting safety/protection measures in using pesticides, (iii) Improvement of household nutritional status, (iv) reduced use of underground water, (v) reduced use of chemical fertilizer and pesticides in crop production; (vi) improvement of soil health and protection of water from pollution; (vii) protect the environment from chemical hazards; (viii) improvement of pond water bodies; (ix) keeps the post-harvest fish processing center clean and hygienic; (x) increase of small indigenous fish species and maintaining fish biodiversity; (xi)management and diverse utilization of livestock farm wastage;(xii) prevention and reduces the rate of disease infection of livestock; (xiii) Improvement of animal health leads higher production; (xiv) safe production of crops, fruits, vegetables, livestock and fisheries; (xv) created income opportunity and increases of income; (xvii) livelihood improvement of the crop, fisheries and livestock farmer.

Past Experience on E&S Compliance in Value Chain: The environmental and social safeguard issues were taken into the consideration in NATP projects at different phases of value chain especially in production and post-harvest processing. The value chain system has given priority on Good Agricultural Practices (GAP) for production of crop, fisheries and livestock which have positive impact on environmental and social safeguard. In this respect the farmers/producers were trained on "GAP". The Good Agricultural Practices (GAP) mostly focused on use of good quality of seed/seedlings/planting materials/breed/fingerlings, application Integrated Nutrient & Pest Management (INPM) which includes use of organic manures and vermin compost, balanced use of fertilizer, application of IPM (sex pheromone trap, yellow sticky trap, habitat of beneficial insects, judicious use of pesticides etc.), improvement of water bodies, use of improved breed, use quality feed, housing management, health management, etc. The proper management of post-harvest activities ensured the post-harvest loss and management of wastage of the product which contributed to prevent the environmental degradation and address the social safeguard issue. The post-harvest activities offered working opportunities of the poor including women. The comprehensive value chain approaches leads in safe and quality agricultural production of products having impact on livelihood improvement.

3.4 The grievance redress system (GRS)

GoB, in 2014 launched an online and centralized Grievance Redress System (GRS), that includes line ministries, government departments and subordinate departments/agencies to address complaints from citizens and improve public service delivery. The GRS is intended to address i) public grievances about service provision that is under the purview of government, semi-government or autonomous organizations, and ii) staff complaints that can be submitted by the officials of government/semi-government/autonomous organizations regarding their access to services or rights as employees.

Citizens can also use the GRS to provide suggestions for simplification of services, law and regulation reforms or share other ideas. However, complaints related to religious matters, right to information, departmental cases against government officials or employees, or issues pending in any court are beyond the scope of the GRS. The GRS includes all government ministries and departments/agencies under them, as well as the Union Parishad, the lowest tier of local government in Bangladesh which are the most recent additions.

MoA and all its agencies are users of the centralized GRS launched by GoB (http://www.grs.gov.bd). The proposed Program would establish a Grievance Redress Mechanism (GRM) interlinked with the centralized GRS to answer to queries, receive suggestions, and address complaints and grievances about any implementation issues of the Program and assessment and mitigation of environmental and social risks and impacts. The mechanism will assist in resolving issues/complaints amicably and quickly, saving the aggrieved persons from having to resort to expensive, time-consuming legal actions. The mechanism will, however, not deprive a person of his/her right to go to the courts of law. Grievance response focal points are to be available at the IAs' intervention level; and Grievance Redress Committee (GRC) is to be formed at implementation levels as needed by the IAs. DAE E&S Cell to monitor the activities of the IA GRS.

At the moment, besides the centralized GRS of GoB, MoA and the IAs have reported the following mechanisms in use:

- DAE GRM. One Deputy Director (DD) and one Additional Deputy Director (ADD) under the Director
 finance and administration are designated as DD and ADD legal Support Service, who work with
 this issue. This GRM works as per the Citizen Charter published on the DAE website. At union
 level, there is union disaster risk reduction committee, where DAE personnel are members. Any
 issues at field level can be addressed using this platform. CIGs are also another platform to solve
 any issues.
- DAM Grievance Redress System (GRS) has Grievance Redress Committees (GRC) at three tiers, such as head office level committee, Divisional office level committee, and District office level committee. A service recipient can file complaints and get remedies to submit complain/grievances through applying grievance submission form both in offline and online. In DAM website, there is information about GRC members, such as name, designation, role of committee, office location, mobile number.
- BMDA GRS is implemented through its Headquarters, Zonal, Regional, and Circle offices up to Upazila level. GRC is formed office wise to render necessary support to receive and redress grievances, if any. However, the GRC is composed of office staffs only and there is no inclusion of representative from local administration, local leadership, farmers' community, women representative etc. As such, when the existing GRC cannot address a grievance, the issue is forwarded to the Upazila Nirbahi Officer (UNO) for redressal¹⁶. Registers are maintained in each office to record grievances. BMDA has its Citizen's Charter that is published on BMDA's individual office website. A complainant (any farmer, operator or related persons) at grass root level can lodge complains to the respective Zonal Office physically or over mobile phone. Upon receipt of a complaint, the Head of Zonal Office (Assistant Engineer) addresses the issue immediately by himself or deputing appropriate sub-ordinates (Sub-Assistant Engineer /Mechanics/Others). The higher authority of BMDA monitors the Grievance Redress System regularly and provides required guidance. However, there appears to be notable weakness in the GRM in BMDA as evidenced from the alleged suicide of two Santal farmers Avinath Marandi and his brother, Robi Marandi by taking

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¹⁶ Conversation with Mr. Md. Azadul Islam, Executive Engineer, BMDA, HQ, Rajshahi on GRM and GRC on 04 April 2022.

poison on 24 and 25 March 2022 protesting the non-cooperation of the Irrigation Deep Tube well operator to water their farmland. The issue was highlighted in all national dailies. This incident exposes the weakness in GRM at BMDA including lack of accountability and supervision by relevant officials. As such, the GRM at BMDA needs to be strengthened.

- BADC Grievance Mechanism System (GMS). Under this system, some of the activities are given below:
 - A complaint box is placed at the front of all the offices including Headquarter.
 - Farmers, Dealers, Tenderer can apply directly to the highest authority.
 - Mass hearing.
- BARI GRM is headed by Director (Support Service) who is assisted by Deputy Director (Audit and Accounts) and Senior Assistant Director (Administration). Complains are taken into account and resolved following NIS 2012 and GRS Guidelines 2015. The grievance and complain can be submitted both offline and online modes. Local complains are tried to be solved by the regional offices but if these are beyond their jurisdiction then these are referred to the Headquarters for proper redressals. Besides, there is Citizen Charter with mobile number, complain box, complain form to submit as to complain redress officer designated by BARI.
- **BRRI** Grievance Redressal Mechanism system. There are two tiers for these mechanisms. The present setup is appended below:

SI.	Time of	Communicating address		Settleme	
No.	Communication			deadline	
1	If the officer-in-charge	Grievance	Director (Administration and Common Services)	Three	(03
	could not solve the	Redressal	Phone: 49272043	months)	
	problem	Officer (GRO)	Email: da@brri.gov.bd; abs_63@yahoo.com		
			Website: www.brri.gov.bd		
2	If the Grievance	Appellate	Joint Secretary (Admin)	One	(01
	Redressal Officer could	Officer	Phone: 9540067	month)	
	not solve the problem		Email: jsadmn@moa.gov.bd		
	within the allocated		Website: www.moa.gov.bd		
	time				
3	If the Appellate Officer	Ministry of	Honorable Secretary	One	(01
	could not solve the	Agriculture	Ministry of Agriculture, Bangladesh Secretariat,	month)	
	problem within the		Dhaka		
	allocated time		Website: www.moa.gov.bd		

BARC follows its Citizen Charter with mobile number, complain box, and complain form to submit
to Complain Redress Officer designated by BARC. Public hearing is also regularly held to redress
the internal grievance among the staff of the institute.

Program GRM. Program grievance redress mechanism (GRM) will be established at each of the IAs. GRC would be formed to address Program related complaints and grievances. The GRC will be the forum where people would exercise their right of participation in the Program cycle through suggestions and complaints. BARC, BARI and BRRI being research entities and not having direct communication at the field level activities could continue with their existing GRM.

At the DAE, DAM and BMDA level, a three tier GRM should be established and separate GRC should operate at each level of implementation hierarchy:

- Tier one: field level GRC (Block/Union/Upazila),
- Tier two: district level GRC;
- Tier three: HQ level GRC.

The GRCs must include members from amongst the beneficiary stakeholders (farmers, agribusinessmen, seed suppliers, persons involved with operating harvesting machines and irrigation

pumps, representatives of local administration, Block supervisor, local NGO representative involved with farming and related matters, women representative at the Union Parishad etc.). Members of the GRC at Union/Upazila level will be nominated by the chairman/mayor.

District Agricultural Extension Officer will lead the district level GRC. He will be assisted by Upazila and Union level DAE staffs, local administration representatives, women representative from local NGO and other members as decided by District Agricultural Extension Officer.

At the Program-level, DAE will form a GRC where the PD will be the convener, officer deputed for E&S matters will be the secretary, and a member from individual IA.

All IAs would furnish a monthly report to DAE on grievances received and actions taken. Moreover, any supervisory visit from the DAE to different IA/in the grassroot level will note the problem and would be able to solve as per merit of the problem. Beyond, a digital HUB could be established at HQ DAE under the supervision and management of the DAE, the lead agency. Some officials would be deputed/ recruited specially to look after the Grievance related issues. This needs to be confirmed from DAE and other IAs.

As the whole country is still not through with COVID-19 pandemic, the web-based GRS is a priority and needs to be developed at the initial stage for use in all stages. A form and toll-free number can be added, so that aggrieved person can easily raise grievances. Some form of hotline mobile telephone number can also be arranged where the aggrieved ones could send SMS to lodge a complaint. Persons/staff at the DAE involved with E&S Monitoring need to be trained further on grievance recording, procedure of address, and disclosure.

SEA/SH GRM. SEA/SH-related complaints, if any, will be handled in a survivor-centric approach in line with the World Bank guidelines provided in the World Bank good practice note on gender-based violence (GBV).¹⁷ SEA/SH-related complaints will be dealt with strict confidentiality, based on the wishes of the SEA/SH survivor. Any SEA/SH survivor will be referred to an NGO assigned for the project by the IA (DAE, DAM, BMDA and BADC) to manage and respond to SEA/SH cases. This NGO will support SEA/SH survivors in accessing service providers and guiding them through options of lodging a complaint. For further details, SEA/SH action plan at https://www.worldbank.org/en/news/press-release/2017/11/08/new-action-plan-addresses-gender-based-violence-in-world-bank-operations is to be consulted with.

World Bank GRS. Communities and individuals who believe that they are adversely affected as a result of a World Bank-supported PforR Program, as defined by the applicable policy and procedures, may submit complaints to the existing Program GRM or the World Bank's GRS. The GRS ensures that complaints received are promptly reviewed to address pertinent concerns. Affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the World Bank noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention and the World Bank management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

¹⁷ World Bank. 2018. "Good Practice Note Addressing Gender Based Violence in Investment Project Financing Involving Major Civil Works." http://documents.worldbank.org/curated/en/399881538336159607/Environment-and-Social-Framework-ESF-Good-Practice-Note-on-Gender-based-Violence-English.pdf and

SECTION IV: RECOMMENDATIONS AND ACTIONS

4.1 Compatibility of MoA's environmental and social systems

The ESSA presented in preceding sections identified the compatibility of the systems of MoA's Program on Agricultural and Rural Transformation for Nutrition, Employment, and Resilience (PARTNER)" and the core principles of E&S management for PforR investment. The assessment has found the systems largely compatible by policy and practice but identified some gaps especially adequacy of E&S management system (ESMS) at the ministry and agency level. The ESSA, therefore, recommends addressing institutional capacity constraints and gaps across a range of ESMS limitations. These recommendations are summarized as actions to be incorporated in the PAP. Drawing upon this background, this section identifies the specific actions that are to be implemented to address the identified risks, gaps/challenges, and needs. These options for improvement of the ESMS have been discussed with the implementing agencies.

4.2 Strengthening environmental and social system performance

The implementing agencies (IAs) manage environmental and social risks and impacts in their regular operations and projects following the national E&S regulatory framework and policies. In case of international finance in their projects, they develop and implement project specific E&S management plans following the E&S compliance requirements of the international finance institutions to supplement the gaps of the national E&S management system.

Based on the above identified impacts, institutional capacity, available resources, and analysis of the experience of MoA / IAs in implementing World Bank and GoB-funded projects, the following issues are summarized.

- MoA's/IAs existing E&S management capacity needs to be strengthened.
- Institutional capacity of MoA for safeguards management at the central level needs to be strengthened.
- Capacity-building training may be required at macro and micro level of the IAs (DAE, DAM, BADC, and BMDA) on E&S risk and impact mitigation, labor management, SEA/SH issues, stakeholder engagement, and GRS issues.
- Integration of the Farmers community and relevant stakeholders with the Program is required.
- Environmental and Social clauses must be integrated in the contractors' contracts with provisioning site specific C-ESMP.
- The GRM of DAE, DAM, BMDA and BADC in particular need to be reorganized and strengthened with the inclusion of project affected people's representative, local leadership, women representative and members from the tribal community (whenever available).

Table 1 lists the E&S actions aimed at strengthening E&S performance of the implementing agencies (MoA and the IAs) in the process of identification, design, implementation, monitoring and evaluation of Program activities. These are E&S input to the Program Action Plan for E&S risks management in the process of Program implementation, summary of the E&S input of the PAP is given in the Annex E.

Table 1. Strengthening environmental and social system performance

Objectives and issues	Recommended measures/actions
Environment and social management instruments	There is no corporate E&S management system with dedicated staff within MOA and any of its departments, the agricultural universities and the research institutions in Bangladesh. They do not have dedicated budget for E&S management in their regular operations.
	The Program, therefore, requires system enhancement for managing likely associated E&S risks and impacts in compliance with the national regulatory framework supplemented with the World Bank E&S Core Principles for PforR operations. The Program Implementation Plan (PIP) will include E&S management guidelines and procedures in response to the national E&S system and the E&S Core Principles for PforR (E&S Guideline). The PIP would guide the IAs in managing Program E&S risks and issues, and subsequently developing Program ESMF including stakeholders participation plan, labor management plan (LMP), Pest Management Plan (PMP), and Gender and SEA/SH Prevention Plan (where necessary). The Program ESMF will guide E&S screening, impact assessment and management.
	When developed, the Program ESMF would be integrated in the E&S Guideline with the PIP for better management of E&S risks associated with the Program activities and the IAs would develop ESMPs for their respective operations under the Program following this ESMF.
Systems strengthening for management of environmental and social risks and impact at the central level	The MoA and some of the IAs have prior experience of implementing projects with World Bank investment project financing (IPF) but none of them have experience in implementation of projects under PforR. The MoA will coordinate, and the Department of Agriculture Extension (DAE) will lead the Program operations requiring oversight of the Program E&S management by employing dedicated staff from within and hiring firms/individual E&S consultants. Therefore, capacity building (through training on environmental and social management) of the personnel at the Program Coordination Unit (PCU) at DAE and the hired personnel (1 Environmental Specialist, 1 Social Development Specialist, 1 Communication Specialist and 1 Gender and SEA/SH Specialist) will be required.
	As part of strengthening corporate E&S Management System (ESMS) within MOA and its various institutions with policy, legal and institutional readiness, DAE will upgrade the Program ESMF into MoA's corporate ESMF, applicable for all its institutions, following international policies and best practices, and national legal framework on E&S risks management including experience from PARTNER and other completed and ongoing

Objectives and issues	Recommended measures/actions
	projects under MoA. Per requirement of the corporate ESMF developed under the Program, MoA will design and establish a separate "Environmental, Social and Communications Section" (ESCS) with networks of E&S units/desks at all its institutions. These recommendations are summarized as actions to be incorporated in the Program Action Plan (PAP).
	The MoA ESCS within its fold should be staffed with required E&S and communication experts on regular payroll to focus on environmental and social management and communication matters associated with projects and programs across MoA institutions.
	This being a lengthy administrative process encompassing various ministries, MoA may, for the time being, hire the services of E&S and Communication specialists from the Program budget for the interim period.
	MoA and relevant IAs can also designate/depute some officials to liaise with the MoEFCC/ Ministry of Social Welfare (MoSW) in addition to complying with the E&S guidelines developed for the Program.
Training at macro and micro (IAs, contractor/ subcontractor) level on environmental and social risk and impact mitigation, labor management, SEA/SH risks and incidents,	MoA/DAE and other IAs have been providing relevant training to its own staff and contractors. However, field-level experience suggests that gaps exist in the implementation of E&S risks mitigation measures. Therefore, there is a need for continued capacity-building initiatives specifically for the staff engaged in Program supervision at the Division, District, Upazila, Union and Block level including contractors and subcontractors involved with the Program. Adequate budget has to be allocated for this purpose from the Program fund. This activity should also align with the National Integrity Strategy 2012.
stakeholder engagement, and grievance redress service (GRS) issues	
Measures to increase accountability for compliance of E&S Core Principles for PforR at the field level	Field-level capability of MoA/IAs suggest that there is need to improve capacity for implementing E&S issues/ESMPs, especially on issues like Occupational Health and Safety (OHS), working condition of workers, stakeholder engagement, risks and incidents of GBV including SEA/SH etc. The following measures are to be adopted:
	The E&S compliance requirements and procedures as outlined in the PIP and subsequently in the Program ESMF, reflected in the contractual

Objectives and issues	Recommended measures/actions		
	agreements of the contractors and subcontractors under the Program.		
	The subcontractors and labor contractors are sensitized about their obligations related to E&S compliance in areas of labor management, restrictions on using Child Labor, resource efficiency, Water and Waste Management, Dust, noise and light suppression, safe disposal of waste petroleum products and lubricants, traffic management, measures to offset GBV, SEA/SH in the workplace and GRM concerning the Labor force etc. through training. Adequate budget has to be allocated from Program Fund.		
	Contractors will prepare site specific ESMP (Contractor's ESMP or C-ESMP) following the site-specific ESMP prepared at the design stage or the PIP provisions on E&S management and the Program ESMF (when developed) including PMP, and LMP prepared by the MOA/IAs before the bidding process starts during the project implementation.		
	Payment to contractors may be tagged with satisfactory compliance of C-ESMP requirements and procedures.		
	Daily record of site supervision by the safety officer must be made available at the project sites. This should be a contractual obligation between DAE and the contractors.		
E&S compliance monitoring and reporting	DAE will engage its dedicated focal persons and the relevant E&S consultants to be hired to ensure E&S compliance monitoring of all the Program activities engaging relevant staff of the partner agencies and will produce Quarterly E&S Monitoring Report (QESMR).		
Child labor, management and monitoring of Labor influx, and SEA/SH	Bangladesh Labor Law puts minimum legal age for employment as 14. MoA and the IAs to ensure that Contractor-developed site-specific ESMP/LMP includes specific clauses and monitoring measures on labor management, child labor restrictions, and minimizing SEA/SH risks. Local community, including local leadership, members from the tribal community (when available) and other stakeholders should be consulted while preparing and updating the ESMPs including labor management procedures.		
	MoA should arrange a strong monitoring system under the Program including engagement of a third-party monitor and creation and operation of a GRM for settlement of labor-related complaints and grievances including SEA/SH. IAs should ensure the following by incorporating these in the contractual documents and through physical monitoring:		

Objectives and issues	Recommended measures/actions
	Construct labor sheds near the work sites so not to adversely affect local communities and their way of living.
	 Undertake mandatory and repeated training and awareness program on LMPs for the workforce at site.
	 Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites.
	Take adequate measures for gender-friendly workplace environment at all work sites and at the labor sheds.
	 Ensure addressing of OHS issues at the work sites inclusive of all workers by gender, age, and ethnicity and ensure availability and use of personal protective equipment.
	 Ensure firefighting and first aid facilities including ambulance services and hospitals for quick evacuation in case of worksite accidents (may be mentioned during tender process).
	Display important telephone contacts such as local emergency services in billboards at the work site and labor shed.
	 Access and make use of GRM in coordination with the local law enforcing agencies, where required, for any issues of labor including misconduct, illicit behavior, drug abuse and other social crimes etc.
Stakeholder Engagement and GRM	The Program activities will follow all-inclusive consultative process, and citizen engagement including grievance response. Meaningful consultation will be conducted with the tribal peoples where Program activities will target them. DAE, DAM and BMDA to undertake consultation and ensure community participation through interpersonal communications, FGDs, and small and large community meetings at Program areas at the identification, planning, design, implementation, and evaluation of site-specific activities. Additionally, MoA may use radio broadcast and other media forms to further disseminate information, whenever required. The PIP should include a detailed guideline to this effect. Recording of grievances need to be ensured at the field and Program level interlinked with the Centralized GRS of the Government of Bangladesh. Since several IAs are involved, individual IAs should share its record and actions on grievances to DAE for final tabulation to share with MoA and the World Bank. DAE, in consultation with MoA may develop and circulate a standard format to this effect. MoA will integrate Program GRM with the centralized GRS promoting its wider access to Program

Objectives and issues	Recommended measures/actions
	beneficiaries and stakeholders. Necessary budget has to be allocated for this purpose from the Program fund.

ANNEX A: GOVERNMENT PLAN OF ACTION, thematic areas and Theory of Change

The National Agriculture Policy (NAP) 2018 of the GoB aims to transform the agriculture sector by emphasizing improve R&D capacity, extension system, agricultural mechanization, adoption of GAP, irrigation systems, post-harvest management, marketing and logistics infrastructure and services, and food safety. The main development of the Government Plan of Action for Implementation of the NAP (PoA-NAP) is to achieve a safe, profitable agriculture and sustainable food and nutrition security in Bangladesh. Its objective is to ensure food security and improve socioeconomic conditions of people by increasing productivity and production of crops, farmers' income, crop diversification, ensuring nutritious and safe food production, improving marketing system, and ensuring profitable agriculture and efficient utilization of natural resources.

The PoA-NAP also describes various activities and interventions that will feed each of these programs. Each program under these thematic areas will be broadly aligned with the proposed PARTNER Results Areas. The proposed PARTNER Results Areas will be broadly aligned with each program under these thematic areas:

Thematic Area 1: Promoting Sustainable Food and Nutrition Security: This Thematic area has the objective of promoting sustainable intensification, diversification and management of production systems in order to ensure the Country's food security and to help it achieve nutrition security in the face of an increasing population projected to be 199.6 million by 2031, up from the current 170 million. It must do so despite a binding constraint of projected reduction in available land for agriculture. This will require strong measures to increase climate resilient productivity on one hand and increase input use efficiency on the other. Six programs are grouped under this theme, these are: i) Crop diversification and sustainable production of safe and nutritious food; ii) Sustainability of production systems and management of natural resources; iii) Climate Smart Agriculture; iv) Strengthening Specialized Agriculture, Protected Cultivation and Production Systems in Special Geographical Areas; v) Efficient and Economic Extension Systems for Fast and Effective Transfer of Technology; and vi) Enhancing Availability of Quality Inputs including Credit, Storage and Marketing

Thematic Area 2: Increasing Income and Livelihood Opportunities for Farmers with an objective of increasing income for the farmers by promoting systems that will help them reduce the cost of cultivation, reduce post-harvest losses and improve agriculture marketing of their products through the following five program areas: i) Post-Harvest Management: agro-processing and development of safe & quality value chain; ii) Appropriate Scale Mechanization & Use of Clean Energy in Farm; iii) Promotion of Industrial & Export-oriented Crops Clusters & Collaboration with Private Sector; iv) Increasing Real Income of Farmers, Labors and women farmers for their empowerment; and v) Attracting, Skilling and Retaining Youth for Innovation-based development in Agriculture

Thematic Area 3: Modernization of Agricultural R&D, Education and Extension with an objective of supporting R&D for development of problem-solving technology that will help increase not only productivity per unit of area and time but will also help maintain a green and safe environment through judicious use of external inputs like chemical fertilizers and pesticides and the good management of natural resources like soil, water and biodiversity. This theme has two main Program areas of i) Quality investment in Agricultural Research for development; and ii) Intellectual Property Rights Sovereignty on Natural Resources and International Partnership.

Theory of Change (As in PAD of September 02, 2022)

K Chal	ey len	ge	
desh's agriculture is highly concentrated on rice with limited diversification, low input use	ency, poor agricultural practices, limited marketing, large post-harvest losses, poor and	luate Agri-logistics and services, and limited private investment along the agri-food chain.	

Program Activities

Results Area 1. Promoting sustainable and nutritious food

- Promoting HYV, stress-tolerant varieties, and other innovations (incl. farmer led innovations) through enhanced research, extension, and private sector linkages. (Promoting diversification)
- Strengthening extension service capacity (e.g., training, eextension, market-led extension) and promote

- Promoting market integration by linking farmers with traders
- Facilitating private investments in Agrilogistics and marketing facilities (aggregating, storage, sorting, grading, packaging, and processing) through the formulation of necessary regulatory and policy frameworks (e.g. PPP, food safety quality standards, e-voucher for warehouse).
- Promoting agricultural mechanization and technology services.

Results Area 3. Modernizing Institutions and Policies for Agriculture

Increasing investment for research and development (R&D) to strengthen infrastructure and human resources in

Outputs

- GAP and IPM standards developed and adopted by DAE.
- Increased availability of HYV technologies for
- Increased availability of stress tolerant varieties, HYV, and technological innovations for maize, pulses, oilseeds, and fruits & vegetable
- Established Technology Village in all UPZILLAS for On Farm Technology Demonstration (OFTD) of new varieties and technological
- · Extension staffs are trained in new innovations and e-extension service delivery.
- New productive partnerships between producers' organizations and agribusinesses established and operational
- Appropriate PPP frameworks developed and adopted.
- Partnerships between private businesses and BARI on scaling up innovations related to processing increased.
- Increased availability of transplanters and $harvesters\ through\ custom\ hiring\ centers$
- Number of farmers received services (extension support, input subsidy support, and credit support) through 'Krishak Smart Card'
- Increased collaboration for research and the scaling up of research outcomes with universities, labs, and private sector at home and abroad
- An evaluation mechanism of NARS is developed and adopted by BARC.
- Improved quality information system

Intermediate Outcomes

- · Area under fruits and vegetables with GAP certification increased.
- · New area under high yielding rice varieties.
- Area under non-rice cereal, pulses, oil crops, fruits, and vegetables increased
- New area under efficient irrigation technologies.
- Number of accredited testing processes for agricultural commodities in testing
- PPP increased in Agrilogistic services.
- Area under mechanized transplanting and harvesting increased
- Farmers' access to finance and services
- R&D activities for new technologies and innovations increased.
- Value chain-specific inter professional bodies for at least five commodities



- Increased Crop Diversificatio
- Increased **Nutritious** and safe food production.
- 2. Increased entrepreneur ship in agrifood value-chains
- Increase d highvalue. safe, and nutritiou s food
- Increase d commer cializatio n and value-

ANNEX B: RESULTS AREAS, DLIS AND ANNUAL DLRS

To achieve its development objective, the proposed PARTNER Program would focus on three results areas which are aligned with the PoA Thematic Areas: (i) Promoting Sustainable and Nutritious Food Production, (ii) Increasing Commercialization and Value-Addition, and (iii) Modernizing Institutions and Policies for Agriculture Transformation. Those results areas have strong synergies and are mutually supportive.

Result Area 1: Promoting Sustainable and Nutritious Food Production. The proposed Program aims at increasing productivity of all key crops such as cereals, pulses, fruits and vegetables and spices, promoting agricultural diversification and enhancing on farm food safety and build resilience in the sector. The operation will promote productivity gains in rice in order to ensure self-sufficiency and increasing land availability seasonally or permanently for other crops with a high market potential. This operation will support the PoA's programs 1 to 6 designed to reform government support to diversification, critical inputs, specialized agriculture, modernizing the extension system and helping farmers to adopt cultivation practices that will build resilience in the sector through adoption of climate smart approaches that will build adaptation and mitigation measures to climate change. Under this Results Area, there are therefore four DLIs:

DLI#1 - Development, rollout, and adoption of GAP standards in fruit and vegetable production (US\$ 60 million). Farmers overuse fertilizers, pesticides, water, and other inputs which not only increase GHG emissions but exacerbate food safety concerns and the inefficient use of limited resources; furthermore, export opportunities are reduced. In December 2020, the MoA issued the "Bangladesh Good Agricultural Practices Policy 2020". PARTER will contribute to implement such a policy. DLI 1 will track adoption of GAP practices (including IPM) by farmers in selected value chains (5 fruits and 10 vegetables). The DLI will also track the adoption of the Bangladesh GAP policy by MoA, GAP protocols developed for 4 fruits and 10 vegetables, training of farmers on GAP practices, and training of staffs responsible for GAP certification. By the end of the Program, total of 300,000 hectares of fruits and vegetables producing land will adopt the GAP standards. The third-party VA will verify whether the farmers have adopted the GAP standards through on-site review in the upazilas where DAE promoted GAP standards under the PforR.

DLI#2 - Development and adoption of High Yielding Rice Varieties (US\$55 million). Rice productivity growth has slowed down in the last decade. Sustainable rice productivity growth to maintain rice food security requires closing the existing substantial yield gaps, particularly during the Aman and Aus seasons and reducing production costs and GHG emissions. BRRI has already released some HYV seeds and technologies that farmers can adopt, but they need to be disseminated; in addition, new stress-tolerant/low-carbon HYV and climate-smart technologies need to be developed and disseminated. Increasing rice productivity will allow the release of some land (Boro season) for crop diversification. DLI2 will track the adoption of new rice HYVs (including those developed over the past 5 years) over the three harvesting seasons. Besides, this DLI will track the preparation and adoption of a strategic framework for seed breeding, multiplication, and distribution (including private sector participation); the generation of new stress-tolerant and nutrient-dense rice varieties; establishment of a seed multiplication and marketing network, and demonstration of improved technologies to farmers and extension services. The DAE will track the adoption of improved rice varieties by farmers and generate report on the amount of land that has come under these new varieties. The third-party IVA will verify the adoption of new HYV rice technologies by farmers through on-site review in the upazilas where these technologies are demonstrated under the PforR.

DLI #3 Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops (US\$65 million). Past improvements in food production have not been translated into adequate nutritional outcomes as food consumption patterns remain poorly diversified (64% of the dietary energy supply came from cereals in 2016-17). However, because of increased urbanization and expected income growth, the demand for fruits, vegetables, and animal products is expected to increase by more than 50 percent by 2030. In addition, rice production has become less profitable due to a significant increase in labor wages and irrigation costs, whereas prices of other foods have been steadily increasing. The GoB introduced crop diversification as a key component of the National Agricultural Policy not only to address nutritional and farmers' income issues, but to increase the sector's resilience to climate change and other shocks. This DLI will track crop diversification, i.e., the new area planted to non-rice crops. This DLI will also tracks the strengthening of a sound policy and the preparation of an action plan (by BARI in collaboration with DAE, BARC, and BADC), in the first year of the Program, to be adopted by DAE, BARI, BARC, and relevant private sector actors. The generation of new stress-tolerant and nutrient-dense non-rice varieties; establishment of seed multiplication and marketing networks, and demonstration of improved technologies to farmers and extension services will also be monitored by the DLI. The DAE will track the adoption of the improved technologies by farmers and generate report on the amount of land that has come under these new technologies. The third-party IVA will verify the adoption and operationalization of the action plan and roll out of new technologies by farmers through on-site review in the upazilas where these technologies are demonstrated under the PforR.

DLI #4 Adoption of efficient irrigation technologies (US\$60 million). Ground water storage is declining. Some Boro rice areas already face water shortages. In addition, in the coming decades, Bangladesh is likely to be adversely affected by the rise in sea level, saltwater intrusion, rainfall variability and an increase of the mean temperature. Current irrigation practices and high energy subsidies to irrigate cropland led to inefficient use of water. In fact, water use efficiency in Bangladesh is one of the lowest in South Asia (MoA estimates that only 3 percent of total irrigated land can be considered efficient in terms of water use); small and fragmented landholdings reduce this efficiency even further. Technologies to increase water use efficiency in agriculture are available and have already been introduced by BADC and BMDA. DLI 4 will track adoption of efficient irrigation technologies (solar pumping, buried pipe, energy-efficient sprinkler, and drip irrigation) by farmers. The DLI will also track the development of a policy/regulatory framework and a strategic plan that, in consultation with the private sector (equipment providers), identifies constraints and solutions (including incentives, training and support) in the adoption of efficient irrigation technologies (including partnerships, service delivery models and applicable technologies to specific crops/regions). Besides, the DLI will also monitor the progress in the Demonstrations and training on efficient irrigation technologies; and the on-going technical support provided by BADC to Union level and community-based irrigation systems. The BADC will track the adoption of the improved technologies by farmers and generate report on the amount of land that has come under these new technologies. The third-party IVA will verify the adoption of new technologies by farmers through on-site review in the upazilas where these technologies are demonstrated under the PforR.

Result Area 2: Increasing Entrepreneurship and Access to Services along the value-chains. The proposed Programs aims at improving the income of farmers and other value chain actors by supporting programs that aim to reduce the cost of cultivation, help with the reform of the food safety system by strengthening the national testing laboratories, and promote access to better markets. This RA will support PoA programs 6, 8 and 9. The programs will also aim at improving working conditions of female farmers and promote an active participation of the women and youth as agents of change by providing them with appropriate skills that enable their retention on the job market and or creating own higher value jobs in the agriculture value chains. Under this RA there are three DLIs:

DLI #5 Expansion of digital agricultural services provision through 'Krishak Smart Card' (US\$70 million). The large number of farmers in Bangladesh (16.5 million) poses significant challenges for efficient extension service and public/private support delivery, which is crucial to improve agricultural productivity and resource use efficiency. For instance, only around 5 percent of farmers are visited annually by State agricultural agents; a vast majority lacks access to high quality inputs and financial services. In addition, incentives to farmers are not being delivered in the most efficient way as the MoA lacks farmers and service-providers databases. DAE is piloting the use of the Krishak Smart Card in 9 districts, but the card needs to include additional features and a mobile application needs to be developed. DLI 5 will track the number of farmers receiving extensions services through the Krishak Smart Card, setting the basis for additional digital service provision. The DLI will also include some key actions that include: the development of a policy/regulatory framework by DAE for the Krishak Smart Card, including an action plan to roll out extension services and other support through the Smart Card; the establishment and operationalization of a digital system, the development of a digital extension service delivery mechanism; the collaboration with commercial services (inc. financial), and a pilot program for efficient input subsidy delivery mechanism. The DAE will track the recipients of the support packages among farmers and generate report on the number of farmers that received those support through the 'Krishak Smart Card'. The third-party IVA will verify the receipts of input support and extension services by farmers based on random sampling in the upazilas where farmers are provided this support under the PforR.

DLI #6 Promotion of the accreditation of seed certification and food safety testing processes (US\$40 million). Food safety remains a significant concern for horticulture crops. The country lacks proper testing facilities, skilled scientists and lab technicians. Some exporters and entrepreneurs are unaware of testing requirements and the MoA lacks a PPP framework to set up labs and facilitate testing certification. DLI 6 will track the number of accredited testing laboratories established and operational (e.g., plant pathology, entomology, and soil science) for promoting exports of selected commodities (i.e., potatoes, vegetables and fruits), especially in export prone areas. Based on the assessment of the lab testing and following national and international standards, the Bangladesh Accreditation Board will provide accreditation certificates. The other actions that will be monitored by this DLI include: the development and adoption by MoA of policy, regulatory framework (including PPP) and operational procedures for food safety at the farm level, in accordance with Bangladesh Accreditation Board (BAB) guidelines, WTO-SPS treaty, and International Plant Protection Convention (IPPC) rules; the establishment and upgradation of testing facilities with adequate equipment and human resource capacity; and the development and operationalization of a certification system. The third-party IVA will review and verify the achievement of the results by reviewing the partnering policy changes, the labs' accreditation, and the certification process.

DLI #7 Promotion of Ag entrepreneurship for youth and women (US\$43 million). Current unemployment rates among women and educated youth in rural areas are particularly high. Participation of youth and women in commercial agriculture, agribusiness, and service provision to farmers is minimal. Compared to older men, women and youth lag behind in terms of access to services and market information. The Ministry of Youth and Sports has developed some training programs for youth, but hands-on training programs and support for startups are lacking. DLI 7 will track the number of youth and women trained (including on-the-job training) and supported in commercial agriculture, agribusinesses, agricultural innovations and services. The DLI will also track the progress of four underlying actions, which include: (i) the development of an action plan and operational procedures for ag entrepreneurship promotion; establishment of partnership with businesses and financial institutions for on-the-job training and capital support; and the Mentoring/follow up support provided and youth & women centers/networks. The third-party IVA will verify the achievements reported by the DAM on random sampling basis.

Result Area 3: Modernizing Institutions and Policies for Agriculture Transformation. The proposed Program aims to reform the agricultural research, education and extension system and improve the efficiency, effectiveness, coordination and information management of agricultural policies and programs. There are three DLIs under this RA.

DLI #8 R&D activities for new technologies and innovations increased along with an operational evaluation system for NARS institutes (US\$100 million). Current expenditure in agricultural R&D stands at 0.4 percent of GDP. The Plan of Action of the NAP 2018 aims at raising that figure to 1 percent. Empirical evidence has demonstrated the significant positive impact of investment in R&D on agricultural productivity, but NARS institutes lack capacity in infrastructure and HH.RR. Furthermore, NARS institutes lack a well-functioning performance evaluation system that not only demonstrates clear progress in quality research but allows them to prioritize and assign scarce resources to those specific R&D activities with the highest social and economic returns. DLI 8 will track progress in R&D capacity of NARS institutes and extension services. The DLI will track modernization of NARS institutes and MoA's extension services through (a) increased spending in research activities, HR capacity development in areas such as speed breeding, precision agriculture, efficient input use, adaptation to climate change, etc., and infrastructure, including (but not limited to) laboratory equipment, a vertical farming facility, and seed breeding and soil testing facilities; (b) the number of MoU established with global agricultural research institutions (universities, labs, international institutions, public agencies, private organizations) for collaborative research (US\$20 million); and (c) the establishment of agreements on the use of research outcomes by farmers / private sector (US\$20 million). This DLI will also monitor the development and adoption of a strategy and an operational evaluation framework (including staff performance) for NARS institutes and MoA extension bodies. The third-party IVA will verify the improvement in research infrastructure and human resource capacity that led to the improvement in the performance evaluation system by reviewing the publications, innovations, and technologies released from the NARS system.

DLI #9 Establishment and operationalization of value chain promotional bodies for select commodities (US\$30 million). Several factors constrain value-chain integration and competitiveness: limited participation of value-chain stakeholders in policy formulation, limited public-private dialogue for the development of the value chains, lack of coordination among valuechain participants for the expansion of value-chains, and limited R&D by the private sector. Valuechain promotional bodies are state-recognized public-private platforms which bring together participants from all stages of the same agricultural commodity chain; they work on expanding commodity markets through advertising campaigns, market research, new product development, quality standard setting and consumer awareness. DLI 9 will track the progress in the establishment and operation of value chain promotional bodies for select commodities. This DLI will also track progress in underlying actions for the achievement of the targets and these actions include: (i) the development and adoption by MoA of a policy and regulatory framework (including an operation manual) for private sector-led value-chain promotional bodies, informed by an assessment, through a stakeholder dialogue process, to make the value-chain more competitive and efficient; (ii) the formulation of multistakeholder platforms/ strategic action plans for at least 5 agricultural export products (but not limited to): mango, jackfruit, tomato, potato, and fine rice; (iii) strengthening of stakeholders' (especially farmers') organizations; and (iv) operationalization of those value chain promotional bodies. The third-party IVA will verify the development of necessary policy framework and the establishment and operating procedures of the inter-professional bodies by reviewing relevant documents.

DLI #10 Improvement of quality information system (agricultural statistics and market research services incl. foreign markets) (US\$20 million). The agricultural sector lacks quality statistical data, market information, and sector analysis, all of which is crucial for evidence-based policy making. PARTNER will strengthen ICT infrastructure and systems and HH.RR. capacity in data collection,

entry, processing, and analysis. DLI 10 will track progress in the improvement of quality agricultural statistics, policy analysis, and agricultural sector performance. Specific actions that will be tracked under this DLI include: (i) the development and adoption by MoA and its agencies of an action plan to harmonize and strengthen the quality and reliability of agricultural statistics and strengthen capacity for agricultural market research and analysis; (ii) statistical and analytical capacity development (software, hardware, and human); (iii) the capacity development of Upazila staffs for quality data collection (GEMS training, tablet distribution, etc.); and (iv) the preparation of an annual agricultural sector performance report, following the objectives and targets set by the NAP-2018 Plan of Action. The third-party IVA will verify the facilities/systems by reviewing documents and outputs from the activities completed each year.

Results Areas	Indicators
Results	DLI #1: Development, rollout, and adoption of GAP standards in fruit and vegetable production
Area I.	• DLI 1.1 GAP standards and protocols for fruits and vegetables developed and approved by MoA
Promoting	DLI 1.2 Number of farmers and certification staff trained in GAP certification
Sustainable	DLI 1.3 Area (hectare) under fruits and vegetables with GAP certification
and	DLI #2 Development and adoption of High Yielding Rice Varieties
Nutritious	DLI 2.1 Stress-tolerant and nutrient-dense rice varieties generated
Food	DLI 2.2 Network established and operational for seed multiplication and marketing
Production	DLI 2.3 New area (hectare) under high yielding rice varieties
	DLI #3 Crop diversification towards non-rice cereals, pulses, oilseeds, and horticulture crops
	• DLI 3.1 Stress-tolerant and nutrient-dense varieties developed and on-farm trial for non-rice
	crops conducted
	DLI 3.2 Seed/saplings/propagative material multiplication and marketing network (including)
	private sector participation) established and operational
	DLI 3.3 Area (Ha) under non-rice cereal, pulses, oil crops, fruits, and vegetables increased.
	DLI #4 Adoption of efficient irrigation technologies.
	DLI 4.1 Policy/Regulatory framework & strategic plan developed
	DLI 4.2 New area (Ha) under efficient irrigation technologies.
Results Area	DLI #5 Expansion of digital agricultural services provision through 'Krishak Smart Card'
II: Increasing	DLI 5.1 Policy/Regulatory framework developed
Entrepreneur	DLI 5.2 Digital extension services delivered and e-voucher pilot for new input subsidy
ship and	mechanism implemented.
Access to	DLI 5.3 Number of farmers received services (extension support, input subsidy support, and
Services	credit support) through 'Krishak Smart Card'
along the	DLI #6 Promotion of the accreditation of seed certification and food safety testing processes
value-chains	• DLI 6.1 Laboratories established (including refurbished/upgraded) with adequate HR and
	equipment*****
	DLI 6.2 Number of accredited testing processes for agricultural commodities in testing labs
	DLI #7 Promotion of Ag entrepreneurship for youth and women.
	DLI 7.1 Partnerships with businesses for on-the-job training established*****
	DLI 7.2 Number of youth and women entrepreneurs are trained (including on-the job training)
	in commercial agriculture, agribusinesses, new agricultural innovations, and agricultural
	services
Result Area	DLI #8 R&D activities for new technologies and innovations increased along with an operational
III:	evaluation system for NARS institutes
Modernizing	DLI 8.1 Increase in R&D budget for NARS institutes
Institutions	• DLI 8.2 Number of MoUs/agreements on research collaboration with research labs and on the
and Policies	scaling up of NARS research Outcomes with MoA agencies and Private Sector
for	DLI #9 Establishment and operationalization of value chain promotional bodies for select
Agriculture	commodities.
Transformati	DLI 9.1 Policy and regulatory framework developed and adopted by MoA.
on	DLI 9.2 Value chain-specific promotional bodies for at least five commodities established and
	operational

DLI #10 Improvement of quality information system (agricultural statistics and market research services incl. foreign markets)

- DLI 10.1 Number of upzilas with staffs equipped in high quality data collection capacity
- DLI 10.2 Quarterly Agricultural Policy Note (including market forecasts) prepared and published

ANNEX C: CORE PRINCIPLES AND ASSOCIATED KEY PLANNING ELEMENTS OF ESSA

The ESSA has been prepared in a systematic way and the key issues are given due consideration in assessing E&S systems applicable to PforR Program activities. The ESSA considered Program circumstances and the extent to which the Program systems are consistent with the six core principles and associated key planning elements. ¹⁸ Specialists preparing the ESSA may draw from other relevant assessment methods or guidance materials developed for specific subject areas that may be considered best practice and authoritative—for example, the World Bank's Involuntary Resettlement Sourcebook.

The six core principles and their applicability are stated below:

Core principle Core principle 1: General Principle of Environmental and Social Core

Core principle 1: General Principle of Environmental and Social Management

E&S management procedures and processes are designed to (a) promote E&S sustainability in Program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.

Program procedures will do the following:

- Operate within an adequate legal and regulatory framework to guide E&S impact assessments at the Program level.
- Incorporate recognized elements of E&S assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the 'no action' alternative); (c) explicit assessment of potential induced, cumulative, and transboundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of Program information, and responsive grievance redress measures.

Applicability

Core Principle 1 is applicable for the E&S management of the Program. Environmental management of civil work-related activities and OHS will be key issues in promoting sustainability of the proposed Program and adequate safeguard measures should be in place to avoid adverse impacts and health risks.

Core Principle 1 equally applies to social management of the Program. No notable adverse project-related social risk and impact is expected during implementation of the project.

Core Principle 2: Natural Habitats and Physical Cultural Resources

E&S management procedures and processes are designed to avoid, minimize, and mitigate against adverse effects on natural habitats and physical cultural resources resulting from the Program.

The proposed Program investments are not likely to affect natural habitats of aquatic flora and fauna including fish as well as terrestrial flora and fauna adversely. As such, Core Principle 2 is not applicable.

¹⁸ https://web.worldbank.org/archive/websiteo1541/WEB/IMAGES/ENTIREOM.PDF#page=295&zoom=100,92,138

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Core principle	Applicability
Core Principle 3: Public and Worker Safety E&S management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.	The Program will support small and medium scale new construction and civil works and therefore there will be issues associated with public and worker safety during construction activities. Therefore, core principle 3 will be applicable.
Core Principle 4: Land Acquisition Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.	No land acquisition is planned for the Program. As such, Core Principle 4 is not applicable.
 Core Principle 5: Indigenous People and Vulnerable Groups Due consideration is given to cultural appropriateness of, and equitable access to, Program benefits giving special attention to rights and interests of tribal people and to the needs or concerns of vulnerable groups. Undertake FPIC of tribal people who are potentially affected (positively or negatively) to determine whether there is broad community support for the Program. Ensure that tribal people can participate in devising opportunities to benefit from exploitation of customary resources or tribal knowledge, the latter to include the consent of the small ethnic and vulnerable community (tribal people). Give attention to groups vulnerable to hardship or disadvantaged, including the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to Program benefits. 	As the Program area encompasses whole Bangladesh, whenever any subproject including their screening are planned in tribal community occupied areas, consultation/FPIC will be undertaken with the tribal community by MoA/IA at each stage of the Program at the local level through FGD and physical contact and the inputs will be sent to macro level for planning purpose.
Core Principle 6: Social Conflicts	Not applicable.

ANNEX D: PROCEEDINGS OF STAKEHOLDER CONSULTATION

Program on Agricultural and Rural Transformation for Nutrition, Employment and Resilience (PARTNER), P176374

Government of the People's Republic of Bangladesh; Ministry of Agriculture

Virtual meeting
Date: 07/06/2022
Time: 7:30 PM to 9:30 PM

Annex A The World Bank, Dhaka Office ESSA Assessment Team conducted a virtual stakeholder consultation on 07 June 2022. Some 57 participants including MoA/DAE, DAM, BADC, BARI, BRRI, BARC and BMDA officials, DAE's district, Upazila level and Union level officials, soil research institutions, agriculture research organizations, farmers and their associations including the Asian Farmers Association, universities, a farmer from Shapahar, Rajshahi and a representative from the Asian Farmers Association joined the meeting. Dr. Shakawat Ahmed Sharif from DAE initiated the discussion on being requested by Mr. Mahashin. DAE's focal person presented a short briefing on the PARTNER Program that included project area, project objectives, scope of work and the Program interventions. Bank environmental and social team apprised the audience on the findings of the ESSA on Moa/IAs' capacity to undertake the Program, institutional responsibilities and implementation performance of MoA in different projects, related govt. and MoA policies, social and environmental benefits and risks involved with the project and ways to mitigate the risks. The team emphasized on the importance of consultation with all related stakeholders including "Free, prior and Informed Consultation" with the tribal community while undertaking Program interventions in areas where they inhabit. The participants were interested on the assessment, findings and recommendation provided in the ESSA. The Bank Team informed the audience that in this Program the Bank is focusing on three Result Areas namely:

Annex B

Annex C a. Crop Diversification and Sustainable production of safe and nutritious food;

Annex D b. Increasing commercialization and value addition; and

Annex E c. Modernizing Institutions and Policies for agricultural transformation.

Annex F

Annex G The Stakeholders were very satisfied with the deliberation on the Program, and were convinced that when completed, it would provide them with transformational shift of agriculture in support of diversification towards high-value crops, ensuring food and nutrition security, and building long-term sector resilience to climate change. They were also appreciative of the Program's efforts to empower women in agriculture and increasing job opportunities for the youth, mechanization, crowding in the private sector as much as possible, as well as increasing the volumes of quality and safe produce marketed in the country, The audience was informed PARTNER Program will also increase food quality and certification through the adoption of food standards for primary producers and the establishment of accredited testing facilities.

After the briefing session, the floor was opened for Q/A by the participants/ stakeholders. MoA and Bank's ESSA Teams replied to the questions/queries/comments. The main discussion issues and reply given are narrated below:

Key discussion issues and replies in the Meeting:

Serial	Name and Appointment	Issue Raised	Reply from MoA/ESSA Team	
1.	Md. Azadur Rahman, XEN, BMDA	BMDA focuses on 16 northern districts and this Program would be of great benefit to the farmers and others involved in the chain.	The Team thanked for his comments.	
2.	Dr. Nirmal Chandra Shil, BARI	He appreciated the Program activities and hinted that for calculating GHG emission, there is need to undertake GHG Model based study. This needs capacity Development. He also hinted that under the present context, mechanization in farming, conservation in agricultural practices — particularly tillage, limited irrigation etc. need to be undertaken.	The Team thanked him for his valuable observations and agreed with his comments.	
3.	Mr. Amirul Islam, Asian Farmers' Association	He hinted on the overuse of chemical Pesticides that were harming the nutrition of the soil and killing many an insect that are required for pollination. He advised to promote organic pesticides.	The Team thanked him and informed that the issue was very important and would be addressed in the Program.	
4.	Mr. Razu, DAM	He indicated that the Program plans to train 10,000 unemployed youth (50% women) in agribusinesses, input and service provision to farmers, and Agritourism in special agroecological zones such as hill tracts, haor, orchards in dry zone areas. It could be difficult to attain this benchmark, particularly with women, given the socio-cultural context of the country. He also advised to have 'One Stop Solution' for promoting entrepreneurship.	The Team thanked Mr. Razu for his observations and informed that though bringing 50% women under the fold of training was challenging, yet the IAs can undertake mass awareness program to woo the desirous women. The idea of establishing 'One Stop Solution' for promoting entrepreneurship was considered for further study.	
5.	Dr. Nazmul Islam, BADC	He lauded the Program intervention and thanked the World bank for financing this GoB Program.	The Team thanked him for his comment.	
6.	Mr. Md. Ashraful Alam, PSO, BARC	He indicated of use of vehicles and infrastructural developments in non-agricultural lands. He noted that GHG emission from agricultural activities were negligible in the overall context of the country.	The team noted his observations.	
7.	Dr. ATM Morshed Alam, CSO, BJRI	He cited an example of uncontrolled mechanization in farming whereby some cows died after taking Parthenium weed in some northern part of the country. It was later revealed that the weed came from the tractors that were tilling in some other areas where this weed was available and through mechanized harvesting, the weed has reached other areas. He stressed on surveying Noxious weeds before undertaking tilling using mechanical means.	The team thanked him for his very focused intervention and promised to work on this issue in the Program.	
8.	Dr. Babul C Sarker, Fruit Research Unit	There could be some provision of giving incentive to the farmers for reducing GHG emission. 'Irrigation for Compensation' may also be pondered upon.	The idea was taken by the team for further discussion.	

Serial	Name and Appointment	Issue Raised	Reply from MoA/ESSA Team	
9.	Dr. Nurul Islam, CSO, SRDI, BARC	He emphasized on soil health; how soil is polluted and how to improve soil health through dedicated soil tests.	The team lauded his observation and informed that this matter was part of the Program intervention.	
10.	Mr. Sotten Kumer, ADD	He informed that though the Program envisages 'No Land Acquisition', there could be necessity to acquire land for infrastructural development if the existing land in the IA identified areas are inadequate.	The Team informed that given the Program intervention by different IA, it has been assed that there would be no land acquisition. However, if there is a requirement as such, it would be undertaken under a different Project/Program.	
11.	Dr. Md. Abdus Salam	He indicated that while Crop Diversion is a good and progressive intervention, it must be weighed against negatively triggering Food security. GoB may ponder upon Crop Insurance to avert such risks on the farmers.	The team noted his observation and informed that this matter would be studied in future meetings.	
12.	Mr. Abdur Rahim, DD, HC, Banani, Bogura	He said that while we are talking of Climate smart agriculture, High Value Crop etc. to double food production and ensure food security, we should also focus on organic farming, IVF and IVNS. He observed that many a fruit sapling from different countries are being brought to Bangladesh indiscriminately — Necessary research need to be undertaken and upon confirmation through the research result, only the adaptable fruit saplings could be permitted. He also reminded that whatever technology we adopt, it should avoid and mitigate negative effects.	The team thanked Mr. Rahim for his observations and informed that this matter would be considered in the coming meetings.	

In the closing remarks, Mr. Mahashin commented the following:

- a. Agriculture is contributing to 10-14% of the GDP.
- b. The Bank could share the quantity of GHG emission by the IAs if such data/study was undertaken by the Bank.
- c. It is important to have a 'Baseline Data' at the beginning of the Program so to compare with the terminal data to reveal what has been achieved.
- d. He reiterated that since MoA/DAE is well acquainted with Bank's safeguard policies through the 3 Bank supported projects, it has developed necessary Grievance Redress Mechanism and other issues relating LMP, SEA/SH, social and environmental issues etc.

Mr. Mahashin thanked the participants for their agility and valuable contribution in the consultation meeting. He thanked and appreciated the Bank staffs' sustained support in contributing for the Program and making the Consultation Meeting a successful one. The meeting terminated at 9:30 PM.

ANNEX E: E&S ACTIONS TO BE INCORPORATED IN THE PROGRAM ACTION PLAN (PAP)

The Environmental and Social Systems Assessment (ESSA) has identified key environmental and social (E&S) measures in response to the gaps in the national E&S Management System (ESMS) in agriculture sector with the World Bank E&S core principles for PforR finance. The measures have been consolidated into actions to be incorporated in the Program Action Plan (PAP). The Program Implementation Plan (PIP) will include E&S guidance to ensure that these actions are completed on time to continue green and resilient approach of implementation of the Program. The following three specific Program actions related to E&S Systems have been identified for the PAP and procedures for carrying out these actions will be translated into the PIP as E&S Guidance, subsequently confirmed in the Program ESMF to the E&S guidance.

E&S Action 1: Developing and Operating Program E&S Management System. There exists a need for establishment and roll-out of a robust E&S management system for managing E&S risks and impacts in compliance with the national regulatory framework and the World Bank Core Principles for PforR. Therefore, the Program will support development of an Environmental and Social Management Framework (ESMF) to guide MoA/DAE and other implementing agencies (IAs) in developing site/activity specific E&S risks management tools like E&S Impact Assessment (ESIA), E&S Management Plans (ESMPs) including Pest management plan (PMP), Labor management plan (LMP), Community/Stakeholder engagement plan (SEP), and Gender & Gender Based Violence (GBV) Prevention Plan, as applicable. The E&S risks management procedures outlined in the Program ESMF, when developed, will be integrated in the Program Implementation Plan (PIP) for objectives, requirements and procedural guidance to the IAs in assessment and management of E&S risks and impacts of the Program activities. The procedures will be aligned with requirements of the national E&S system and the E&S Core Principles of the World Bank for PforR finance.

E&S Action 2: Strengthening Program E&S Management and the Corporate E&S Management Systems. Field-level experience suggests that there exists a gap in the existing systems for implementation of ESMPs for regular operations of the IAs. Therefore, PARTNER will support recruitment of E&S consultants and providing trainings to the Program specific staff of the IAs on E&S risks management. PARTNER will specifically support MoA/DAE to develop corporate E&S management systems including updating and upscaling the Program ESMF for their own national program to adopt as a corporate E&S management system (ESMS) along with establishment of an E&S and Communications Section (ESCS) within DAE/MoA with dedicated staff to gradually mainstreamed beyond the Program period with relevant desks at all the IAs for corporate management of E&S risks in their regular operations. The E&S trainings will ensure that: (i) the E&S Guideline in the PIP for compliance by the

contractors & subcontractors are reflected in the contractual agreements; (ii) the subcontractors & labor contractors are sensitized about their obligations related to E&S compliance including OHS, CHS and risks of SEA/SH.

E&S Action 3: Facilitating E&S Compliance Monitoring and Reporting. The Program Coordination Unit (PCU) at DAE on the Program will engage its dedicated focal persons and relevant E&S consultants in ensuring E&S compliance monitoring of all the Program activities engaging relevant staff of the partner agencies. These focal persons & consultants will: (i) ensure that daily records of site supervision are made available at the project sites; and (ii) produce Quarterly E&S Monitoring Report (QESMR). Additionally, the MoA/DAE and the IAs will ensure that site-specific ESMPs (C-ESMPs) of the contractors include specific clauses & monitoring measures on environmental and social issues, labor influx management, child labor restrictions, and minimizing risks of SEA/SH. The MoA/DAE will arrange a strong monitoring system under the Program and establish a GRM for settlement of Program related complaints and suggestions, workers' complaints and with a protocol of sensitivity to the SEA/SH related grievances.

Table E.1 provides the monitoring protocol for implementation of the E&S Program actions under the Program.

Table E.1 Monitoring PAP Implementation on E&S Management

Action Description	Respon- sibility	Recu- rrent	Due Date	Completion Measurement
1: Developing and Operating Program E&S Management System	PCU/ DAE		Three months after mobilization of consultants	Program Environmental and Social Management Framework (ESMF) prepared and rolled out covering E&S management tools like ESIA)/ESMP, SEP, PMP, LMP, and Gender & GBV Prevention Plan.
			Four months after mobilization of consultants	ESMF and other instruments are integrated in the E&S Guideline in the PIP to address intrinsic E&S management requirements relevant to the Program and procedures.

Action Description	Respon- sibility	Recu- rrent	Due Date	Completion Measurement
2: Strengthening Program E&S Management and the Corporate E&S Management	DAE/ MoA and Other IAs		Yearly	Trainings (on E&S risk & impact mitigation, labor management, GBV risks & incidents, stakeholder engagement, and Grievance Redress Service (GRS) issues) are designed and conducted
Systems (ESMS)			Before initiation of physical works	The subcontractors & labor contractors are trained about their obligations related to E&S compliance including OHS CHS and SEA/SH at works sites
			By 10 months of Program inception	Corporate ESMF prepared, approved by MoA and operationalized across MoA and its organizations.
			Second year	Document the measures taken for establishing an Environmental, Social and Communications Unit (ESCU) at MoA/DAE with relevant desks at the IA institutions.
3: Facilitating E&S Compliance Monitoring and Reporting	DAE/ MoA and Other IAs	Recurrent		Daily record of community engagement, participation and grievance resolution including site supervision issues associated with Program activities available at sites and local offices of the IAs.
			Quarterly	QESMR and site-specific E&S tools are prepared.
			Before initiation of physical works	Site-specific ESMPs (C-ESMPs) of the contractors are prepared before execution of the physical works.

References:

- World Bank, Dhaka, Program Concept Note for Program on Agricultural and Rural Transformation for Nutrition, Employment and Resilience (PARTNER), P176374 dated 02 February 2021
- World Bank Policy on PforR Financing
- Program Appraisal Document for Program on Agricultural and Rural Transformation for Nutrition, Employment and Resilience (PARTNER), P176374; September 02' 2022
- PARTNER, P176374, Preparation Mission; April 4-13, 2022; Aide Memoire (AM)

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Content

This Guidance explains various aspects of conducting the Environmental and Social Systems Assessment for Program-for-Results Financing operations.

Applicable to

IBRD,IDA

Issuer

Director, OPSPO

Sponsor

Manager, OPSIL

SECTION I – PURPOSE AND APPLICATION

- This Guidance provides information to Staff serving as task team members, in carrying out the Environmental and Social Systems Assessment (ESSA) for a Program-for-Results (PforR) operation. The ESSA identifies the key environmental and social risks (E&S) that may affect the achievement of the development outcomes of a PforR operation, assesses the borrower's ability to manage those risks, and recommends additional measures if needed.
- 2. This Guidance applies to IBRD and IDA.

SECTION II – DEFINITIONS

- 3. As used in this Guidance, the capitalized terms and acronyms have the meanings set out (a) Bank Policy: "Program for Results Financing"; (b) Bank Directive: "Program for Results Financing"; (c) Bank Procedure "Program for Results Financing"; or (d) below:
- a. Bank or World Bank: IBRD or IDA, or both, as applicable.
- b. **Benefits**: Positive consequences of actions taken, and/or activities implemented under the PforR Program.
- c. **Board**: The Executive Directors of IBRD or IDA, or both, as applicable.
- d. CESSO: Chief Environmental and Social Standards Officer (OPCS).
- e. **Directive**: Bank Directive: Program-for-Results Financing.
- f. **DLI**: Disbursement-linked indicator.
- g. Effect: Refers collectively to benefits, impacts, and risks under the PforR Program.
- h. **E&S**: Environmental and Social.
- i. **ESF**: Environmental and Social Framework.
- j. **ESSA**: Environmental and Social Systems Assessment.
- k. **ESSA** Report: the principal report to Management that documents the main findings and recommendations from the ESSA process.
- I. **GHG**: Greenhouse gas.
- m. **GRM**: Grievance redress mechanism.
- n. **IBRD**: International Bank for Reconstruction and Development.
- o. **IDA**: International Development Association.
- p. **Impacts**: Adverse or negative consequences of actions taken, and/or activities implemented under the PforR Program.
- q. Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities or Indigenous Peoples: As defined as in ESS 7 of the Bank's ESF.
- r. **Integrated Risk Assessment**: Assessment to identify the major risks that the PforR Program will not achieve its results.

- s. IPF: Investment Project Financing.
- t. **Issuer**: The person or body that has issued a Legacy Document or is responsible for issuing a new or revised P&P Document.
- u. Management: The President or a Manager, or a chief officer whose functions and responsibilities include the authority to issue P&P Documents as set by Management through terms of reference or a delegation of authority, or some or all of these persons, as applicable.
- v. **OP:** Operational Policy statement.
- w. **OPCS:** Operations Policy and Country Services.
- x. PAD: Program Appraisal Document.
- y. **PAP:** Program Action Plan.
- z. **PCN:** Program Concept Note.
- aa. PDO: Program Development Objective.
- bb. PforR: Program-for-Results.
- cc. Policy: World Bank Policy:" Program-for-Results Financing".
- dd. POM: Program Operational Manual.
- ee. Program Legal Agreement: As defined in Procedure: "Program for Results Financing".
- ff. Program Concept Review: As defined in Procedure: "Program for Results Financing".
- gg. Risk: The potential for the loss or damage of something of Environmental and Social value.
- hh. **SA:** Environmental and Social Standards Advisor.
- ii. **Staff:** Persons holding an appointment under Staff Rule 4.01, "Appointment".
- ii. **TOR:** Terms of reference.

SECTION III - SCOPE

INTRODUCTION

4. This Guidance provides advice to Staff on how to assess the arrangements, within a PforR Program (Program), for managing potential E&S effects in a manner consistent with the World Bank Policy: Program-for-Results Financing (Policy) and the Bank Directive: Program-for-Results Financing (Directive). The Policy and the Directive set out core principles and planning elements¹ used to ensure that PforR operations are designed and implemented in a manner that maximizes potential E&S benefits while avoiding, minimizing,

¹ The terms *core principles* and *key planning elements* are not used in the Policy or the Directive. However, they are introduced in this Guidance to distinguish between the evaluation criteria spelled out in paragraph 9 of the Policy (herein called *core principles*) and the criteria spelled out in paragraph 30 of the Directive (herein called *planning elements*). See Annex A, ESSA Analytical Framework, for a complete listing of the core principles and planning elements.

- or mitigating E&S harm. The principles that guide the Policy are similar in substance and purpose to those guiding the E&S aspects of standard Investment Project Financing (IPF) and are intended to achieve similar outcomes.²
- 5. For each proposed PforR operation, the Bank assesses—at the Program level—the potential E&S effects of the PforR (including direct, indirect, induced, and cumulative effects as relevant); the borrower's capacity (legal framework, regulatory authority, organizational capacity, and performance) to manage those effects; and the likelihood that the proposed operation achieves its E&S objectives.
- 6. If, in the Bank's judgment, the borrower lacks the regulatory authority or organizational capacity to effectively manage E&S effects in accordance with the core principles of the Policy, the Bank may require supplementary actions to strengthen PforR Program performance. The Bank may also decide that the risk profile of the proposed PforR Program, or of specific PforR Program activities, is too high to consider using PforR financing.
- 7. Managing identified E&S effects in a PforR operation requires specific actions during the identification, preparation, and implementation stages.
 - *Identification* entails a systematic two-step screening of the proposed PforR operation to determine whether, from an E&S perspective, the proposed Program is suitable and eligible for PforR financing. The first step is to identify any activities within a proposed program of expenditures—including activities required to meet the Program Development Objective (PDO) or Disbursement-linked Indicators (DLIs)—that, under the exclusionary principle of the Policy, should be excluded because of their inherently high risk. The second step is to review the proposed Program activities to determine whether the potential E&S effects (which may not meet the Policy's criteria for exclusion) include unacceptable adverse risks associated with one or more of the risk criteria defined later in this Guidance.³
 - Preparation entails (a) assessing the nature and significance of the E&S risks and
 effects⁴ identified in the identification-stage screening while systematically
 considering the E&S core principles and planning elements; (b) assessing the
 borrower's capacity to manage those risks; and (c) if necessary, formulating
 measures for inclusion in the overall Program Action Plan (PAP) to enhance both
 the E&S management systems and the E&S outcomes during implementation, in a
 manner agreed on with the borrower.
 - Implementation entails (a) verifying the implementation of any agreed actions, including any agreed capacity-building activities and any specified E&S mitigation measures; (b) carrying out periodic monitoring to ensure that the borrower's E&S systems demonstrate acceptable performance throughout the implementation period; (c) ensuring that mechanisms for verifying the achievement of any DLIs relevant to E&S outcomes are in place; and (d) identifying any additional management measures that may be needed to address poor performance or unanticipated challenges to effective implementation.

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² This Guidance does not define specific World Bank internal decision processes, roles, and responsibilities at the PCN or appraisal decision stages; all such areas are defined in the Bank's ADM framework and other procedural documents.

³ For example, a proposed activity may not meet the exclusion criteria *per se*, but may still present unacceptable risks because of lack of implementation capacity or other contextual risk factors.

⁴ While the definition of E&S effects includes benefits, known impacts, and potential risks, the primary emphasis of the ESSA is to determine the extent to which the borrower's systems can manage the adverse impacts and risks.

THE ESSA PROCESS

- 8. For each proposed PforR operation, the World Bank task team completes an ESSA. ESSA refers both to the process for evaluating the acceptability of a borrower's system for managing the Program's E&S risks in the particular operational context, and to the final report that is an output of that process. The ESSA process is a multistep methodology in which the Bank team (a) analyzes the E&S effects, including indirect and cumulative effects, of activities associated with the defined Program;⁵ (b) analyzes the borrower's systems for managing the identified E&S effects, including reviewing practices and the performance track record; (c) compares the borrower's systems—laws, regulations, standards, procedures, and implementation performance—against the core principles and key planning elements to identify any significant differences between them that could affect Program performance; and (d) formulates recommended measures to address capacity for and performance on policy issues and specific operational aspects relevant to managing the Program risks (e.g.,, carrying out Staff training, implementing institutional capacity-building programs, developing and adopting internal operational guidelines).
- The findings and recommendations of the ESSA are subsequently factored into the operation's overall Integrated Risk Assessment, Program Appraisal Document (PAD), and PAP, which is presented at the appraisal stage as an input into Management's decisionmaking.
- 10. PforR encourages flexible processes, with collaboration between the borrower and the Bank in assessing, planning, and adapting as necessary to each Program context. The ESSA process uses a risk management approach, in which the Bank applies judgment in assessing both the significance of potential E&S effects and the borrower's capacity to manage those risks.⁶ The Bank's use of judgment is especially necessary in assessing a potential borrower's commitment to implementing new programs effectively, or to strengthening or broadening the effectiveness of existing programs during their implementation.
- 11. While the ESSA is a World Bank responsibility, the Bank and the borrower work closely together to identify and consider the range of E&S effects that may be relevant to the Program. Nonetheless, the PforR approach distinguishes specific roles and responsibilities regarding major steps and tasks at the various phases of the program cycle (set out in Annex B).

Program E&S Risk Screening

12. All proposed PforR operations are screened for E&S risks by the Program Concept Review meeting. The task team conducts the risk screening in two steps: (a) applying the exclusion criteria to eliminate activities that are not eligible for PforR financing; and (b) completing the preliminary risk screening process using the methodologies recommended in Annex C of this Guidance. Screening identifies not only direct impacts, but also any indirect or induced Program impacts—that is, effects that may arise from activities that are not necessarily proposed for PforR financing but are a foreseeable result of the PforR financing, as well as those arising from activities associated with the Program. For example, an urban transport

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⁵ Including the activities defined in the program of expenditures or activities required to meet the PDO, results areas goals, and DLIs.

In this context, Bank refers to all individuals and management units with responsibility and accountability associated with PforR operations: the task team, relevant Practice Managers, the Country Management Unit, and OPCS. While the E&S management specialists on a task team have substantial responsibility for assessing systems and presenting risks, they are not alone in the process.

investment Program, in combination with other economic or contextual factors, may induce future urban growth along new or improved transport corridors. The induced growth is evaluated as it has environmental effects that may materialize at a future date.

- 13. The Bank task team makes available, for internal review, a summary of the risk screening results before the Program Concept Review meeting or its equivalent.⁷
- 14. *Exclusions*. Under the Policy, activities that are "judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people are not eligible for financing and are excluded from the Program." More specifically, PforR financing should not be used to support programs, or activities within programs, that in the Bank's opinion involve the following:
 - Significant conversion or degradation of critical natural habitats or critical cultural heritage sites;
 - Air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems;
 - Workplace conditions that expose workers to significant risks to health and personal safety;
 - Land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions;⁸
 - Large-scale changes in land use or access to land and/or natural resources;
 - Adverse E&S impacts covering large geographical areas, including transboundary impacts, or global impacts such as greenhouse gas (GHG) emissions;
 - Significant cumulative, induced, or indirect impacts;
 - Activities that involve the use of forced or child labor;
 - Marginalization of, discrimination against, or conflict within or among, social (including ethnic and racial) groups; or
 - Activities that would (a) have adverse impacts on land and natural resources subject
 to traditional ownership or under customary use or occupation; (b) cause relocation
 of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional
 Local Communities from land and natural resources that are subject to traditional

⁷ The risk screening at Program Concept Review summarized in the PCN reflects the information available at this stage. This may continue to be updated as more information becomes available.

In the context of this Guidance, resettlement includes physical relocation of individuals and communities as well as the acquisition of land for program purposes. Because of the extreme sensitivity of land acquisition and resettlement, the Bank exercises caution when proceeding with any resettlement when the borrower cannot demonstrate that its systems meet the core principles and attributes or cannot ensure consistently satisfactory resettlement outcomes.

It is not necessarily helpful to define fixed numerical thresholds for "large scale" because the significance of impacts depends very much on local contextual factors. The definition of significant resettlement impacts is closely related to the extent to which the borrower's systems align with the core principles and to the borrower's capacity to carry out land acquisition and resettlement in accordance with policy principles and requirements. The emphasis should be on the potential for significant impacts on affected people regardless of scale, as significant adverse impacts are not acceptable to the Bank even if they affect only a small number of people. When the Bank team's assessment is that the borrower is not able to demonstrate resettlement practices consistent with PforR core principles, regardless of the size or severity of resettlement impacts, the PforR operation should proceed only after a separate review of agreed resettlement systems and capacity-building actions by the SA or, in very sensitive cases, with senior management in GSURR and the CESSO.

ownership or under customary use or occupation; or (c) have significant impacts on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities' cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected communities.

- 15. This exclusion principle applies to Program activities that meet these criteria, regardless of the borrower's capacity to manage such effects. In the PforR context, the concept of exclusion means that an activity is not included in the identified program of expenditures. In addition, an activity is not included if it requires the completion of a non-eligible activity to achieve its contribution to the PDO or any specific DLI.
- 16. The following list provides examples of activities that are normally excluded from PforR financing: new or significant expansion of
 - Power plants;
 - Major transport infrastructure—for example, new highways, expressways, urban metro systems, railways, and ports;
 - Operations in mining and extractive industries;
 - Commercial logging or large-scale forest-products-processing operations;
 - Large-scale water (surface and groundwater) resource infrastructure, including large dams, or activities involving the allocation or conveyance of water, including inter-basin water transfers or activities resulting in significant changes to water quality or availability; or
 - Manufacturing or industrial processing facilities.
- 17. *Identification/concept-stage risk screening*. At the Program Concept Note (PCN) stage, the task team undertakes a comprehensive screening of potential E&S effects. The context-specific E&S risk screening⁹ identifies likely E&S impacts and includes a preliminary assessment of important contextual, institutional, capacity, or reputational risk issues facing the Program. The objective of this screening is to identify potential risks and opportunities that may be associated with the Program that warrant further analysis through the ESSA or that require specific Management attention at the PCN review meeting.
- 18. In some cases, although a particular activity would not automatically be excluded from PforR financing based on the exclusion criteria, PCN-stage risk screening may indicate that the risks of a proposed Program are nevertheless unacceptably high due to contextual factors. This includes, for example, unusually weak implementation capacity, political instability that could interfere with the implementation or monitoring of risk management measures, or a history of unsatisfactory implementation of even relatively small-scale resettlement.
- 19. The task team seeks the advice of the Environmental and Social Standards Advisor (SA) as early as possible in the preparation cycle, preferably before the PCN review meeting. The SA can be very helpful in reaching consensus on risk factors and their overall significance, and on whether certain proposed activities should be dropped or modified. The SA can also help in scoping the coverage of the proposed ESSA analysis. Agreeing up front on the Program risks and the scope of the ESSA can help to avoid delays and problems at the appraisal stage.

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⁹ Annex C describes a recommended approach to Program risk screening.

- 20. The concept-stage risk screening methodology involves the use of four criteria¹⁰ to initially evaluate the range of associated E&S effects: (a) the likely E&S effects; (b) the E&S context, including any risks to sustainability; (c) institutional complexity and borrower implementation capacity and track record; and (d) reputational and political risk. For each of these criteria the Program is assigned a risk rating—High, Substantial, Moderate, or Low—depending on the likelihood and severity of these risks in the Program context.
- 21. After assigning individual risk ratings for these criteria, task teams assign an aggregate risk rating. If the aggregate risk rating is High, the Bank should consider the activities as ineligible for PforR financing. However, an activity risk rating of High at concept stage does not necessarily mean the activity in question should be excluded. In some cases, it may signal a need to examine this issue closely in the ESSA, to determine whether the risk can be avoided or reduced to an acceptable level through technical or capacity-strengthening measures.
- 22. Risk screening can also help flag critical issues for in-depth discussion at the concept stage so that the Bank can make informed decisions about proceeding with a given PforR operation. It may be that certain design changes or management measures can reduce the nature of the risk to an acceptable level. Or Management may decide that certain risks identified in the concept-stage screening are not acceptable, and the activities or results areas would not be included in the PforR.
- 23. If task team members disagree about the risk ratings, the view of the Environmental and Social Specialist normally takes precedence. If strong disagreements persist over risk ratings, the task team should seek guidance from the SA as soon as possible. If resolution is not feasible in consultation with the SA, the task team consults the OPCS Chief E&S Standards Officer (CESSO).
- 24. Proposed PforR operations should also be screened to determine whether linked or associated activities would be required to meet Program objectives but are not explicitly defined as Program activities or included in the expenditure framework. In some cases, this may lead to a decision that elements of the proposed operation that are linked to such activities would not be eligible for PforR financing because the risks of the linked or associated facilities are too high. For example, a PforR operation may propose supporting solid waste collection systems in an urban area, but not the construction of new, large-scale urban landfills that could be considered too risky because of various E&S issues. While the new landfills might be considered as being outside the Program, if they were required to meet the objectives of waste collection systems, a decision might also be made to exclude the waste collection systems from the Program. Therefore, the ESSA should assess the risks of associated facilities.
- 25. Some PforR operations may be accompanied by a parallel IPF component—for example, when the borrower is seeking financial resources to support technical assistance to implement some aspects of capacity building, to finance feasibility or other planning studies, or to finance high-risk activities that might be excluded from PforR financing. The safeguards aspects of these parallel IPF activities are processed separately, using the requirements of the Bank's Environmental and Social Framework (ESF).
- 26. The results of the E&S risk screening feed into the Integrated Risk Assessment that is made for all PforR operations at the concept stage. Management considers E&S risks, among other considerations, in deciding whether to proceed with using the PforR instrument for

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¹⁰ It should be noted that because the information available at the concept stage is often limited, these criteria are applied in a general way at the concept stage, and in a systematic and detailed way in the ESSA.

the proposed operation. Once a decision is made to proceed using the PforR instrument, detailed technical, fiduciary systems, and E&S systems assessments are undertaken and measures to address weaknesses and enhance performance are identified, incorporated into a PAP, and implemented as described in the following sections.

Assessment of Borrower Systems

- 27. For each PforR operation, the Bank analyzes the borrower's applicable systems, considering the system both as it is defined in laws and regulations, and as it is implemented in practice. The purpose of this analysis is to determine the systems' capacity to manage program risks during preparation and throughout implementation.
- 28. The initial step in this process is to describe the borrower's E&S management systems that are relevant to the management of the identified risks, as they are codified and documented in laws, regulations, procedures, standards, organizational functions, technical guidance, and so on. An important aspect is to define the scope of each applicable system and clearly identify organizational responsibilities, relationships among key agencies, and implementing authorities.¹¹
- 29. In some cases, there may not be a single E&S management system but rather multiple systems. This could occur, for example, in Programs involving many provincial, state, or municipal jurisdictions operating under different rules and standards, or with differing implementation capacities and performance track records. In such cases, task teams may need to evaluate more than one system and more than one implementing entity.
- 30. The ESSA process normally considers all applicable systems and entities. However, if the number of systems and/or implementing entities is so large, diverse, or complex that it is not possible to fully evaluate all of them, teams may consider using a representative sample of systems and implementing entities. Other tools may include self-assessment questionnaires, multi-participant workshops, or selective site visits. In these situations, the risk rating for institutional complexity should be High. If the team does not have adequate human and financial resources and time to conduct a meaningful assessment of multiple systems and entities, this may lead to a decision to drop certain activities from the Program or to modify the overall approach to the operation so that a meaningful assessment is feasible.
- 31. The next step in the assessment process is to compare the borrower's systems with the criteria defined in the Policy. To assist in formulating a systematic analytical framework, this Guidance distinguishes between *core principles* (criteria set out in the Policy) and *key planning elements* (criteria set out in the Directive),¹² which together establish the E&S requirements that are deemed necessary to achieve outcomes consistent with PforR objectives. The core principles and key planning elements provide a systematic guide to assess the borrower's Program systems and its capacity to plan and implement effective measures for E&S risk management. They also serve as a basis for the provision of Bank implementation support throughout the Program lifecycle.¹³

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¹¹ Because so much depends on correctly identifying which elements of the borrower system are applicable, this (and other key elements, including proposed methodology) should be set out in a draft TOR for the ESSA, and this draft TOR discussed with the SA.

¹² See Policy, para. 9, a-f; see Directive, para. 30, a-m.

¹³ Annex D provides an analytical framework describing the core principles and key planning elements, along with some guiding questions to assist with the assessment.

- 32. As relevant, the team preparing the ESSA systematically and explicitly considers each of these principles and planning elements. The task team's detailed analysis should be presented in an annex to the ESSA Report, and the findings and recommendations are summarized in the main text of the ESSA. The ESSA Report clearly assesses whether the borrower's systems meet/exceed the criteria, or whether there are significant gaps or differences that are relevant to the PforR. Deficiencies may be in policy, legal, or procedural areas, or in the borrower's actual implementation track record.
- 33. As relevant to the PDO, results areas, DLIs, or Program activities, any significant differences between the borrower's E&S management systems and these criteria are considered as important risk factors. Such differences need to be addressed, in a manner satisfactory to the Bank, through agreements in the PAP and/or the Program Legal Agreement and Program Operational Manual (POM).
- 34. The Bank's preference is to introduce system-level changes where feasible. Program-level "gap-filling" measures are proposed only when it is not possible to achieve system-level fixes (e.g., change in national legislation, decrees, sub-decrees, or other sector-level administrative measures to clarify institutional roles and responsibilities and resources) in a timely manner. Such short-term gap-filling or other performance enhancement measures may be defined in the POM, which can provide more details than PAP actions agreed with the borrower.
- 35. While the borrower's systems may not be exactly equivalent to the core principles or planning elements in the literal content of a policy, regulation, or procedure, the borrower may be able to demonstrate that the objectives of the criteria are met through established practices or other gap-filling measures applicable to the PforR Program. For example, a borrower may not have a legal requirement in land expropriation law to compensate informal settlers or others without legal title. However, the borrower may be able to mobilize alternative financing sources unrelated to the land expropriation law to ensure that the objective of compensating informal settlers would be met under the PforR Program.
- 36. The final step in the assessment process is to assess the borrower's current practices and its performance and track record. This part of the analysis addresses issues such as the adequacy of the organizational arrangements, institutional clarity, budgets, human resources, and ability to deliver quality work in a timely manner. The assessment focuses on the performance of borrower systems and not just the availability of resources. It also focuses mainly on activities that have been implemented using the borrower's systems, rather than those carried out in the context of projects financed by the Bank or by other external funding sources that applied their own E&S requirements. It verifies that the borrower's systems can consistently meet their objectives and provide evidence that outcomes are achieved.

Identification of Recommended Actions and Management Measures

- 37. On the basis of this analysis, the Bank and the borrower together agree on measures and actions to manage any significant gaps in the borrower's capacity to implement E&S management systems at a level commensurate with the identified risks to the Program, and consistent with the Bank's core principles and planning elements. The task team identifies and, as needed, reaches agreement with the borrower on measures to enhance the borrower's E&S management systems, capacity, and/or performance.
- 38. The timing and acceptability of gap-filling measures adopted to address such differences are a matter of judgment by the Bank task team, the borrower, and Management. Such judgments depend on the nature of the risks, the nature of the differences, and their

- significance to the environment or potentially affected people. In some cases, the Bank may require that differences be addressed before appraisal is completed. In lower-risk situations, the Bank may recommend a time-bound set of actions to remedy differences during the life of the PforR Program. Some differences that present very minor risks may not need to be addressed as part of the Program actions. No actions are necessary if the assessment concludes that PforR Program capacity is adequate to the risks to be managed.
- 39. If measures to strengthen systems or capacity are deemed necessary, they may include either specific measures to strengthen organizational performance or specific E&S mitigation measures to ensure consistency with the Policy. Bank task teams confirm that (a) recommendations and actions are specifically linked to identified weaknesses or gaps; and (b) recommendations and actions described in the ESSA are appropriately incorporated in the PAD, PAP, Program Legal Agreement, or POM.
- 40. **Performance monitoring and implementation support.** The borrower and the Bank task team have distinct responsibilities for monitoring PforR Program performance, especially regarding any specific organizational improvements or mitigation or enhancement measures agreed with the borrower. Agreements for borrower actions are typically documented in the PAP. Program performance should be monitored against a set of mutually agreed quantitative and/or qualitative indicators devised for Program purposes. Ideally, these indicators should measure not only the progress on agreed actions, but also the overall effectiveness of their results. In addition, monitoring includes a regular periodic review of complaints registered through GRMs. The Bank task team supplements the borrower's self-monitoring information with periodic field visits to Program activities and offers further implementation support as agreed with the borrower.
- 41. **Strengthening E&S management capacity.** If the ESSA process concludes that (a) borrower's management capacity is sufficient to handle adverse impacts or risks and achieve any E&S benefits associated with the Program, or (b) no significant impacts or risks are associated with the PforR, there is no need to devise and agree on additional measures to strengthen E&S management capacity.
- 42. PforR operations may include new Programs in areas in which the borrower has no, or very limited, implementation experience or track record. In these cases, even when otherwise capable PforR agencies are involved, supplemental actions may be needed to mitigate impacts with which the agencies lack prior experience. Defining necessary actions may require more work and/or a different analytical approach when a new government program is proposed or when a new program agency is to be established, as there is no track record or performance to review.
- 43. For new or untested program entities and systems, it is less likely that the ESSA process is able to identify all issues, so the team's periodic review of performance against specific actions is particularly important. Assessment of new Programs may prove difficult to carry out in practice and II likely requires the definition of more rigorous capacity building, implementation support, and monitoring efforts. Still, even though a government program may be new, the agency or ministry implementing it may have relevant experience from other donor-supported activities, projects, or pilot programs that can be taken into account in the ESSA.
- 44. In incorporating necessary actions into the overall PAP, the Bank and the borrower agree on the timing for implementation. In line with the conclusions of the system assessment, the PAP establishes arrangements for periodic performance review, monitoring and reporting, and adaptation based on implementation experience. If actions are to be coordinated among two or more agencies, the PAP clarifies responsibilities and financial

- obligations and describes how to address failures to act in a timely manner or to resolve interagency disputes.
- 45. The Bank and the borrower establish PforR Program specific arrangements for Bank implementation support, covering any necessary monitoring or reporting requirements and the frequency of Bank field visits. They also identify areas in which Bank advice or implementation support may be useful in enhancing the effectiveness or sustainability of borrower E&S management practices—for example, training by Staff or advisory services based on the Bank's substantial experience. When Staff are to provide training or advisory services, these responsibilities should be set out in the PAP in sufficient detail to be incorporated in the work programs of the relevant Staff.

PREPARING THE ESSA REPORT

- 46. The ESSA Report, whether for existing or a new Program, documents the team's findings and recommended actions. It distinguishes clearly between actions that are required for the Program to manage E&S risks in a manner that is consistent with the core principles and planning elements (and therefore is included in the PAP, DLIs, and/or POM) and recommendations that could enhance the E&S sustainability or benefits of a Program but are not considered mandatory under the Program.
- 47. The scope, depth, and length of the ESSA Report are tailored to the specific PforR context.¹⁴ The level of new or additional information required might be minimal for previous or current borrowers, whose system performance may already be well documented in other reports and well understood by the Bank.
- 48. The ESSA Report may be based, in part, on information obtained from such sources as published studies; media reports; web-based information; assessments carried out in the context of other Bank-supported activities (e.g., other operations, country studies, technical assistance); assessments undertaken by other development agencies associated with the Program; or other relevant national, regional, or sectoral assessments or analyses. However, ESSA Report preparation also entails direct communication with borrower implementing agencies and relevant Program stakeholders, usually through direct interviews, focus group discussions, workshops, surveys, and field visits.
- 49. Program implementing institutions with demonstrated implementation effectiveness can be expected to manage significantly greater levels of potential impact and risk, whereas new Programs or implementing agencies will warrant deeper scrutiny and, depending on Program context, agreement on more detailed or stringent mitigation measures, or limitation in the scope of acceptable Program activities.
- 50. Annex D presents a suggested outline for an ESSA Report.

STAKEHOLDER ENGAGEMENT UNDER PforR

51. Stakeholder engagement¹⁵ is an essential element of the ESSA process. The World Bank is committed to ensuring that both internal and external stakeholders are given an

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For operations that present minimal or no E&S risks or impacts, the ESSA Report does not need to be long or unnecessarily complex; an abbreviated form of the ESSA would be acceptable. Task teams should confirm the breadth and scope of the ESSA as soon as the Program boundaries are well established.

¹⁵ In the PforR context, *stakeholder engagement* refers to a wide range of activities: consultations, disclosure of information, complaints management, and GRMs.

- opportunity to meaningfully participate in the ESSA process, inform the preparation of the ESSA Report, and provide meaningful inputs throughout the lifecycle of the operation.
- 52. Under PforR financing, stakeholder engagement is a flexible process that, like other aspects of PforR processing, is commensurate with both the complexity and risks associated with the proposed operation. Given the wide variation in Program scope and risk profiles of PforR operations, this Guidance recommends a context-specific approach to consultation processes; no uniform consultation structure or protocol is imposed.
- 53. Timely feedback and inputs from relevant stakeholders are gathered through both informal and formal mechanisms. ¹⁶ The Bank conducts consultations with, and seeks inputs from, stakeholders as warranted during the ESSA process and before finalizing the ESSA Report. Because the ESSA is the Bank's responsibility, the borrower is not required to consult with stakeholders on the Bank's findings, or to make the assessment publicly available separately. ¹⁷ Nevertheless, it has become common practice for the Bank and the borrower to plan and conduct the ESSA consultations collaboratively. In most cases, the borrower has an important role in the consultation process and usually agrees to post the ESSA Report on the websites of partner organizations.
- 54. Stakeholders vary depending on the Program context, and teams carry out a careful stakeholder mapping exercise to ensure that all relevant stakeholders are identified early in ESSA preparation. The Bank task team then defines a stakeholder engagement strategy to be followed through the lifecycle of the operation. This strategy identifies, as early as possible, the mechanisms for soliciting feedback from these individuals and groups. The strategy allows for flexibility through the PforR operation cycle, and it may need to be modified from time to time.
- 55. Before PforR Program appraisal begins, the Bank task team makes the draft ESSA Report publicly available and then consults with PforR stakeholders on the draft. The task team considers using supplemental information such as executive summaries, brochures, or other synthesis presentations to facilitate effective communication with participants in any meetings. As for all consultations, the materials provided are in a form and language understandable to participants and should be readily accessible to them.
- 56. Annex E provides more detailed guidance on stakeholder engagement, consultation, and disclosure.

PROGRAM MONITORING AND IMPLEMENTATION SUPPORT

57. During PforR implementation, the borrower monitors how effectively E&S effects are managed—including monitoring the effectiveness of any agreed Program capacity-strengthening measures and of any agreed impact mitigation measures identified in the

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Informal mechanisms include interviews with subject matter specialists or in-country experts, field visits, and small group discussion. Formal mechanisms generally imply mechanisms to receive comments on disclosed documents and open public meetings or discussion forums with fixed start and end dates, formal agendas, and disclosure of comments and feedback.

¹⁷ It is important to note that the borrower is expected to formulate a stakeholder engagement strategy as part of its overall Program implementation plans. The ESSA should include a review of the borrower's arrangements for consultations with, and disclosure of information to, stakeholders associated with Program activities.

While the stakeholder mapping exercise might not have been carried out before the Program Concept Review meeting, the PCN should provide an initial indication of the likely stakeholders and an outline of the likely stakeholder engagement strategy.

¹⁹ This Guidance does prescribe an approach for PforR operations but encourages teams to demonstrate good judgment in formulating a stakeholder engagement strategy.

- PAP—and shares monitoring information with the Bank. The borrower demonstrates throughout Program implementation that its systems continue to operate at least at the levels agreed with the Bank.
- 58. The Bank also monitors the continued implementation of the borrower's E&S systems that apply to the Program. Periodically²⁰ during the implementation period the World Bank confirms that the systems continue to function at the agreed levels, using implementation support missions, independent audits, borrower self-assessments, or other approaches agreed with the borrower. If the borrower fails to implement legally binding agreements expressed in PAPs, loan covenants and conditions, POMs, or other agreements, the Bank may require corrective actions or exercise legal remedies.
- 59. Any significant non-compliance with agreed actions are carefully assessed, documented, and reported to Management, so that appropriate corrective or legal actions may be considered. The borrower and the Bank task team do not unilaterally modify E&S actions or other commitments without the endorsement of Management.
- 60. Bank implementation support may take many forms, depending on the nature of the Program and the E&S effects associated with it. As appropriate, the World Bank task team seeks opportunities during implementation to improve the borrower's E&S management capacity by, for example, disseminating comparative information, sponsoring training activities or workshops, and mobilizing and/or financing technical assistance. Working with the Program agency, the Bank task team also promotes partnership with other donor agencies in pursuit of enhanced E&S management capacity or harmonization in policy or practice. In some cases, the main mechanism envisaged for capacity building is that E&S Specialists themselves (usually country office Staff provide training to the project implementation unit and/or others, both through just-in-time advising and through actual training activities. In such cases, the specific training support (including human and financial resources) is explicitly included in the implementation support program budget for the Bank staff and/or consultants.
- 61. The PAP includes indicators to monitor the implementation of any specific gap-filling actions included in the PAP, which is often a small subset of the E&S monitoring that is needed for a Program. Because the potential range of E&S effects is large and the relevance of potential impacts is, for the most part, context-specific, no uniform or standard set of E&S performance monitoring indicators is envisaged.
- 62. As relevant, the PAP includes both quantitative and qualitative indicators to monitor implementation effectiveness. PforR performance data relating to specified monitoring indicators are reported to the Bank task team in a form that is mainstreamed into the Program's own reporting requirements. In general, Bank task teams develop only a limited number of indicators, to help ensure that they can be effectively monitored.
- 63. In finalizing the systems assessment, the World Bank and the borrower agree on aspects of PforR implementation that may require independent review or verification. In Programs that require substantial capacity-building measures or that have widespread potential impacts requiring mitigation, it may be appropriate to establish arrangements for independent monitoring (e.g., using an external monitoring agency, a non-governmental or civil society organization, panels of experts, or community participatory monitoring) to promote the collection of information from multiple sources and establish independent validation of results.

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²⁰ The appropriate period for the review of systems application is left to the discretion of the team but would normally be expected to be semiannual or annual.

- 64. The World Bank task team undertakes periodic field visits to assess the effectiveness of Program interventions for managing E&S effects that have been incorporated into the PAP. Since there can be many Program sites dispersed across large areas, the task team considers developing a site visit strategy as part of implementation support so that sampling over several years of Program implementation includes sites with relatively significant impacts or relatively complex implementation issues. The site visit strategy also allows for the consideration of potentially important environmental or geographic variables that may affect implementation, jurisdictional differences in implementation responsibility, and socioeconomic or cultural factors that may affect the distributional equity or effectiveness of mitigation measures. Site visitation is also responsive to any patterns that may emerge from the periodic review of GRMs. The task team includes a description of the site visit strategy in the PAD as part of the overall description of the implementation support aspects of the Program.
- 65. As part of the risk management approach, PforR recognizes the need to allow for adaptive management—the ability to respond to changing or unanticipated circumstances by modifying Program procedures to more effectively or efficiently achieve established objectives. To facilitate adaptive management during the implementation phase, the borrower and Bank²¹ may agree to cancel, substitute, or otherwise alter specific provisions relating to E&S management in the PAP, assuming the plan remains consistent with the PforR principles.
- 66. The Bank task team notifies Management if E&S mitigation measures are not being fully implemented as agreed, or if implementation is not successful in managing risks. Under such circumstances, the Bank task team works with the borrower to identify steps to address implementation problems. In many instances, observed Program deficiencies (including those reflected in local grievances) may reflect client capacity issues, which may be best addressed by increasing borrower capacity-building/capacity-support efforts in general. Some cases, however, may reflect recurring or sustained implementation failure, which may require stronger measures to improve performance. As warranted, the Bank can recommend corrective measures to be taken, agreeing with the borrower on time-bound actions that would be closely monitored. If no steps are taken to correct the problem, the Bank can invoke legal remedies.

GRIEVANCE REDRESS MECHANISMS

67. For all PforR operations, the task team verifies that effective Program-level grievance redress mechanisms (GRMs) are in place. 22 The ESSA includes a description of the GRMs, an assessment of their adequacy and effectiveness, and any recommendations for enhancing or improving them. Bank task teams confirm that the Program GRMs can receive, record, resolve, and follow up on complaints or grievances received. In all Programs, complaints that are submitted to established GRMs should be part of the Program's progress reports and should be reviewed by the relevant implementing agencies and the Bank task team. During Program implementation, the Bank task team reviews whether the Program GRMs are operational and responsive to complaints, whether effective steps are being taken to address specific instances of poor implementation of

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²¹ It is generally understood that reference to the Bank in this instance includes the direct involvement of E&S Specialists assigned to the PforR team.

For the purposes of this Guidance, *Program-level* covers all relevant jurisdictions included under the Program—as relevant, appropriate GRM arrangements at the national, subnational, municipal, and/or subproject levels.

GRMs, and whether changes in Program GRM design or procedures should be considered when recurring or systemic issues are identified with respect to GRM functioning.

SECTION IV – OTHER PROVISIONS

"N/A"

SECTION V - TEMPORARY PROVISIONS

"N/A"

SECTION VI - EFFECTIVE DATE

This Guidance is effective as of the date on its cover page.

SECTION VII - ISSUER

The Issuer of this Guidance is the Director, OPSPO

SECTION VIII - SPONSOR

The Sponsor of this Guidance is the Manager, OPSIL

SECTION IX – RELATED DOCUMENTS

Public Documents

- 1. Bank Policy, "Program-for-Results Financing".
- 2. Bank Directive, "Program-for-Results Financing".
- 3. Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing.

Restricted Documents

- 4. Bank Procedure, "Program-for-Results Financing".
- 5. Bank Procedure, "Additional Financing for Program-for-Results Financing".

ANNEXES

- Annex A. ESSA Analytical Framework
- Annex B. ESSA Roles and Responsibilities of the World Bank and Borrower
- Annex C. Environmental and Social Risk Screening at the Concept Stage
- Annex D. Preparing the Environmental and Social Systems Assessment (ESSA) Report
- Annex E. ESSA Consultations and Disclosure

Questions regarding this Guidance should be addressed to the Sponsor.

Annex A ESSA Analytical Framework

This Annex provides a recommended analytical framework to assist task teams in assessing E&S systems applicable to PforR Program activities. The use of such a framework helps ensure that ESSAs are prepared in a systematic way and that key issues are given due consideration in the assessment process. The application of this framework helps identify areas in which applicable systems are consistent with Bank principles, those in which systems are functioning well, and those in which there may be important system gaps that need to be addressed before or during implementation.

The ESSA considers, as may be applicable or relevant to country, sector, or Program circumstances, the extent to which the Program systems are consistent with the six core principles and associated key planning elements. The tables below are aligned with the core principles drawn from the Policy, and the parameters (referred to here as key planning elements) are those that are specified in the Directive.²³ The guiding questions provided in the right-hand column are meant to cover considerations that would help to articulate the state of applicable systems, with respect to both system requirements and system performance. The guiding questions could be used as a checklist, but they are also meant to be indicative and may be supplemented as relevant to a particular context. Specialists preparing the ESSA may draw from other relevant assessment methods or guidance materials developed for specific subject areas that may be considered best practice and authoritative—for example, the World Bank's Involuntary Resettlement Sourcebook.

²³ The Policy and the Directive do not use the terms *core principles* and *key planning elements*. The terminology has been adopted here to clarify the criteria spelled out in those documents.

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.

Key planning elements	Guiding questions	
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR Program systems:		
Operate within an adequate legal and regulatory framework to guide E&S impact assessments, mitigation, management and monitoring at the PforR Program level.	 What relevant E&S laws, regulations, procedures, decrees, or other mandatory legal instruments are applicable to the Program activities and associated impacts and risks?²⁴ Does/do the Program implementing agency/agencies have the legal and/or regulatory authority to commit resources and implement actions necessary for 	
	effective E&S assessment and management of impacts and risks?If not, are critical changes to the legal or regulatory framework needed before the	
	operation can proceed?If a new Program is being proposed, has legal and regulatory authority been clearly established?	
	 Do systems include mechanisms, where appropriate, to ensure objective, disinterested or independent assessments of E&S impacts? 	
Incorporate recognized elements of good practice in E&S assessment and management, including:	Do applicable procedures require E&S screening or assessment of activities associated with the proposed PforR operation that presents risks?	
(i) Early screening of potential impacts.	 Does screening lead to E&S assessments that are proportional in depth and scope to the identified adverse impacts and risks (e.g., does it apply risk categories to determine the depth and breadth of assessments?) 	

²⁴ It is important to note that an ESSA should not be limited to the legal and policy framework of a single leading agency such as the Ministry of Environment. Many sectoral laws and policies outside of environmental agencies may also be highly relevant. For example, Ministry of Transport guidelines on road construction often include requirements for contractors' management of E&S impacts.

	 Are screening procedures comprehensive? Do they include specific consideration of the full range of E&S risks, including among others biodiversity impacts, land use change, changes to air or water quality, management of hazardous materials, and social risks such as land acquisition?
	 Do screening procedures include opportunity for stakeholder involvement in the identification of priority E&S risks and impacts?
	 Do these requirements clearly apply to the Program proposed for support by the PforR operation? Has screening for, and estimation of, E&S effects been a part of the borrower's program design?
	 Is this screening sufficient in scope and scale, conducted at a time when it can influence Program design, and focused specifically on the E&S implications of the PforR operation?
	 Does this screening process consider opportunities to enhance the range and reach of Program benefits?
	 Is E&S screening done in an integrated manner, so that both E&S risks and impacts are identified early on?
	 Is the scope of Program screening broad enough to cover all potentially significant E&S issues?
(ii) Consideration of strategic, technical, and site alternatives (including the "no action" alternative).	 Do the applicable systems require the consideration of alternatives or other forms of options assessments to avoid or minimize potential impacts and risks? For example, are strategic, technical, and site-selection alternatives considered, including a "do nothing" option?
	 Which, if any, other forms of strategic planning, such as sectoral master planning (e.g., urban, natural resources, coastal zones), are used to identify E&S risks and impacts?
	 Does Program design (i.e., identification of activities or expenditures) consider the relative environmental costs and benefits of feasible alternatives?

(iii) Explicit assessment of potential induced, cumulative, and transboundary impacts.	 Do Program procedures require the consideration of induced, cumulative, or transboundary impacts as part of screening, options assessments, and/or Environmental and Social Impact Assessment?
	 Do the procedures allow for, or promote, the use of tools such as strategic E&S impact assessments to help identify and evaluate such impacts?
	 Do the systems require such issues to be managed if they are relevant to the Program?
	 Are Program activities set within strategic management plans that provide an operational framework for understanding and managing such impacts?
	 Do the procedures include measures for evaluating critical global environmental issues such as transboundary pollution, biodiversity loss, international waterways, and climate change?
	 Does the assessment provide adequate opportunity to engage stakeholders on induced, cumulative, and transboundary impacts?
	 Do the systems require considering the implications to and from climate change associated with Program activities, including estimating GHG emissions from Program activities?
	 Do Program systems require assessing the risks from natural disasters or human- induced emergencies?
(iv) Identification of measures to mitigate adverse E&S risks and impacts that cannot be otherwise avoided or	Do the applicable systems effectively promote the application of mitigation hierarchy (e.g., avoid, minimize, mitigate, compensate/offset)?
minimized.	 Do E&S management plans provide sufficient operational detail to guide effective implementation?
	 Are mitigation/management measures called for under the system relevant and realistic (e.g., not requiring disposal of hazardous wastes in a licensed facility if there aren't any in the country)?
	 Do management plans require time-bound actions? Do they have clear targets and clear assignment of responsibilities for implementation and for monitoring/oversight?

	Do applicable systems include clear and appropriate repercussions and remedies
	in case E&S mitigation measures are not applied?
(v) Clear articulation of institutional responsibilities and resources to support implementation of plans.	 Are institutional/organizational responsibilities supported by adequate human and financial resources to implement environmental and/or social management procedures or plans?
	 Are Program entities responsible for E&S aspects adequately staffed—in terms of skills, qualifications, and number of personnel—to ensure effective administration, planning, design, implementation, and monitoring functions?
	 If the Program does not build sufficient in-house capacity, what reliable alternative arrangements (e.g., coordination with other agencies, use of qualified consulting services) are available to promote effectiveness? If none, what needs have been identified for supplementary support and/or capacity strengthening?
	 If the Program depends on interagency collaboration for delivery of services or for managing E&S effects, or if the multi-jurisdictional reach or scope of the Program creates divided responsibilities for implementation, what structural arrangements are in place to ensure effective and timely coordination?
	 Is there a coordinating body that is empowered to resolve coordination issues or delays in required actions?
	Are the Program entities effective at applying their E&S frameworks in practice?
	 Are "adaptive management" processes in place to respond to unanticipated E&S management issues that may arise?
	 Do Program entities have access to contingency funds for unexpected impacts or budget shortfalls?
	 Are processes and procedures relating to E&S protection routinely, effectively, and equitably implemented?
(vi) Responsiveness and accountability through stakeholder consultation, timely dissemination of the PforR	What mechanisms do program entities use to ensure that stakeholders are identified and that their views, concerns, and suggestions are systematically considered?
information, and responsive GRMs.	 Does the borrower consult with stakeholders on various aspects of Program design and operation?

- Is information relating to E&S effects made available to the people or communities that are potentially affected? Do Program implementation arrangements include measures for responsive communications on relevant E&S concerns?
- Do Program implementing entities promote the credibility and accountability of E&S management systems? For example, do they use external monitoring of implementation, or other forms of oversight?
- Does the system include mechanisms for independent oversight and monitoring where appropriate?
- Does the Program have accessible GRMs with established procedures for submission of grievances? Do the established GRMs accept and process grievances relating to E&S management issues?
- Are there established routines and standards for responding to grievances received? Are records available? Does the management of the implementing agency act on identified issues consistently and objectively?
- Do consultation processes promote communication and informed decision-making?
 Do those who may be affected have prior access to information about the topics for consultation?
- Are consultations conducted early enough that stakeholder feedback can be considered in the design of new or changing Program activities? Are consultations conducted in a manner that encourages an open exchange of views?
- Do consultations include a representative cross-section of groups affected by the Program (including women, Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, ethnic minorities, racial groups, the poor, or other groups that might be underrepresented)?
- Does the sampling capture jurisdictional or geographic diversity?

Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing.

Key planning elements	Guiding questions
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR Program systems:	
Identify, and screen for adverse effects on potentially important biodiversity and cultural resource areas and provide	Has Program screening identified potential impacts on modified, natural, or critical natural habitats?
adequate measures to avoid, minimize, or mitigate adverse effects.	 Will the Program activities affect environmentally sensitive habitat areas with local importance, such as streams, wetlands, ponds, and vegetated riparian areas?
	 If such impacts involve the significant conversion or degradation of critical natural habitats, have the activities been excluded from the Program?
	 Does screening include the use of the best available science (e.g., reference to authoritative source materials such as maps, lists of threatened or endangered species prepared by recognized experts, direct advice from recognized experts, advice from peer-reviewed technical literature) to inform the assessment of potential impacts?
	Are Program activities planned and carried out in the context of land use or other management plans that identify sensitive habitat areas?
	 Is screening at a sufficient level of detail and granularity to identify the location and geographical extent of natural and critical habitats?
	 Would Program activities lead to the fragmentation of existing habitat areas, both at the level of localized Program activities and at larger landscape levels?
	 Do management plans require appropriate conservation and mitigation measures to be in place, including those required to maintain ecological services?

Support and promote the protection, conservation, maintenance, and rehabilitation of natural habitats.	 Does the Program include management measures to protect, conserve, or rehabilitate habitats that are at risk? Are these measures consistent with recognized international good practice?
	 Do management systems include measures to avoid, restrict, or otherwise forbid the introduction of exotic or invasive species that may threaten ecosystems of value?
	 Are monitoring measures in place to determine the extent to which habitats are affected under the Program?
	 If Program activities affect protected areas, are such activities consistent with approved and up-to-date protected area management plans?
	 Have the relevant management authorities and other key stakeholders for such protected areas been consulted or otherwise involved in decisions that may affect the legal status or habitat values of the area?
	 If the Program involves any support for establishing forest plantations or other forest management activities for conservation, forest regeneration, or non-timber forest production purposes, does it do so in a manner consistent with internationally recognized standards of responsible, sustainable forest management and use?
Avoid significant conversion or degradation of critical natural habitats. ²⁵	 Are arrangements in place to ensure that significant conversion or degradation of critical natural habitats does not occur and that Program activities do not otherwise contravene international environmental agreements relating to natural habitats or forests?
	 When available data are insufficient to determine the extent or severity of biodiversity impacts, are new biodiversity surveys or inventories, conducted by qualified individuals or organizations, required as part of the Environmental Impact Assessment process?
	 Are appropriate measures in place to ensure that incidents of non-compliance are dealt with in a timely and effective manner (e.g., through work stoppage, penalties, or other legal remedies)?

²⁵ For the purposes of this Guidance, the terms *modified habitats, natural habitats,* and *critical natural habitats* are defined as in ESS 5 in the Bank's ESF.

 If Program activities may cause conversion or degradation of non-critical natural habitats, do Environmental Impact Assessment procedures include consideration of measures to avoid or minimize the severity of impacts (for example, through the systematic consideration of viable alternatives)?
Do plans require appropriate conservation offset measures to be in place, including measures to maintain ecological services?
 Does the screening review involve careful attention to avoiding impacts on resources of archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance?
Is the mitigation hierarchy principle applied in the management of potential adverse impacts on physical cultural property?
Are management measures in place to avoid, minimize, or mitigate such effects?
 Do procedures require the use of authoritative source materials or field-based surveys to identify existing physical cultural resources before works commence?
 Do borrower systems include "chance find" procedures to take effect whenever Program activities result in discovery of, or disturbance to, physical cultural resources?

Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Key planning elements	Guiding questions
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR Program systems:	
Promote adequate community, individual, and worker health, safety, and security through the safe design, construction, operation, and maintenance of Program	 Does the Program have a legal framework that addresses and promotes workplace safety? Are there mandatory measures that compel contractors and facility operators to operate equipment and facilities in a manner that protects individuals and communities?
activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial works as appropriate.	 Does the Program include adequate measures to protect people and the environment from the effects of hazardous or toxic materials that are used in construction and production processes, or wastes that are generated as a by- product of construction or facilities operations?
	 Does the borrower require measures to help protect individuals and/or communities from violence, intimidation, harassment, criminal activity, or other negative interactions with contractors, laborers, operators, or other workers associated with a project activity?
Promote measures to address child and forced labor.	Does the borrower have specific laws or regulations to avoid the use of child and forced labor in the implementation of Program activities?
Promote the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated under the	 Does the borrower have specific laws, regulations, procedures, standards, etc., to effectively evaluate and manage the potential effects of hazardous or toxic materials in the workplace?
PforR.	 Are qualified technical experts engaged for the design, construction supervision, operation, and maintenance of all infrastructure that may pose a significant risk to public safety (including periodic safety inspections)?

	 Does the Program include safety measures and standards for emergency preparedness for pre-existing civil works or works under construction that pose potential hazards to people or the environment? Are emergency preparedness plans implemented and periodically reviewed? If emergency preparedness plans are deficient, what safety measures or remedial works do Program entities need to undertake?
Promote the use of integrated pest management practices to manage or reduce the adverse impacts of pests or disease vectors.	 Where relevant, do Program systems promote the use of integrated pest management practices to manage or reduce pests or disease vectors? Does the Program promote reducing the use of hazardous synthetic chemical pesticides? Does the Program include appropriate technical guidelines and training for the safe production, storage, transport, use, and disposal of hazardous pesticides or other chemicals in accordance with international conventions?
Provide training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with the relevant international guidelines and conventions.	 Do applicable systems invest in the development of staff skills for handling hazardous materials? Have past training practices been sufficient in terms of technical scope and depth? Are workers able to implement good practices in the workplace? Are there systematic constraints to the application of good industry practice in these areas?
Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR Program activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or affected by climate events.	 As relevant, does the Program include measures to ensure that people or the environment would not be put at increased risk from natural hazards such as flooding, earthquakes, landslides, severe weather or climatic events, or other disasters? Does the borrower assess the climate change risks associated with Program activities, such as the estimation of GHG emissions or the inclusion of appropriate mitigation and/or adaptation measures under the PforR operation?

Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.²⁶

Key planning elements	Guiding questions
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR program systems:	
Avoid or minimize land acquisition and related adverse impacts.	Does the Program screen all planned activities to determine whether they may require involuntary taking of land, relocation of residences or businesses, or restrictions on access to natural resources?
	Do Program processes require identification and mitigation of all significant impacts?
	Do systems adequately protect individuals and communities against "forced evictions?"
Identify and address economic or social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to resources they use or occupy.	 As relevant, does screening consider impacts on various property regimes, including common property resources, customary or traditional rights to land or resource use, those who lack title or any recognizable claim, and Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, rights?
	 Do Program processes require identification and mitigation of all significant impacts affecting informal users or occupiers of land (or other resources)?

Program activities for which the borrower's land acquisition and resettlement (LAR) processes have significant gaps with this principle, or for which the borrower lacks sufficient capacity to manage LAR impacts in a manner consistent with this principle, should not be considered eligible for PforR Financing regardless of the number of people affected, unless supplemental arrangements are agreed with the Program authorities and endorsed by the CESSO, GSURR, and/or the Regional Standards advisor.

Provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access.	 Does the borrower's system recognize the principle of replacement cost when land acquisition or physical relocation is required? If not, can the Program provide supplemental payments to meet this requirement? Are transitional expenses allowed under the borrower's systems? If not, are there mechanisms to mobilize additional resources to support this requirement?
Provide supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment).	 Do the Program systems support livelihood restoration and support measures? Do the Program systems include the necessary institutional provisions to ensure the effective implementation of such measures? If not, can the Program provide supplemental payments to meet this requirement?
Restore or replace public infrastructure and community services that may be adversely affected by the Program.	Does the borrower's system recognize the need to restore or replace public infrastructure lost or damaged because of Program activities? If not, what mechanisms are in place to address such concerns under the Program?
Include measures in order for land acquisition and related activities to be planned and implemented with appropriate disclosure of information, consultation, and informed participation of those affected.	 Do land acquisition procedures include appropriate requirements for the informed participation of affected people? Does information on land acquisition and/or resettlement provide sufficient notification of the obligations and rights of those affected, including rights to timely resolution of grievances or complaints?

Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, and to the needs or concerns of vulnerable groups.

Key planning elements	Guiding questions
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR Program system:	
Undertake meaningful consultations if the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities or ethnic or racial groups are potentially affected (positively or negatively), to determine whether there is broad community support for the PforR Program activities.	 Do consultations include a representative cross-section of groups affected by the Program (including women, Indigenous People/Sub-Saharan African Historically Underserved Traditional Local Communities, racial groups, or other ethnic minorities, the poor, or other groups that might be underrepresented)? As relevant, does screening identify different property regimes, including common property resources, customary or traditional rights to land or resource use, and the rights of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities?
Ensure that Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities can participate in devising opportunities to benefit from exploitation of customary resources and indigenous knowledge, the latter (indigenous knowledge) to include the consent of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.	 Does the sampling capture jurisdictional or geographic diversity? Do Program entities regularly review and consider consultation results to obtain or broaden community support? Does the Program exclude activities involving: adverse impact on natural resources to which Indigenous People/ Sub-Saharan African Historically Underserved Traditional Local Communities, have traditional ownership or customary use rights; resettlement from or restriction to such communities' access to such lands; or the commercial exploitation of Indigenous People/Sub-Saharan African Historically Underserved Traditional Local Communities, cultural heritage?

Give attention to groups vulnerable to hardship or discrimination, including, as relevant, the poor, the disabled, women and children, the elderly, ethnic minorities, racial groups, or other marginalized groups; and if necessary, take special measures to promote equitable access to PforR Program benefits.

- Is there consideration of distributional equity, affordability, and cultural, racial, ethnic, or gender constraints to access or participation?
- Does the incentive structure within Program agencies promote outreach measures to encourage equitable and affordable access to Program benefits?
- Does it consider how to alleviate cultural, racial, ethnic, financial, or physical barriers that hamper the participation of socially marginalized or disadvantaged groups?

Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Key planning elements	Guiding questions
The assessment considers, as may be applicable or relevant under particular PforR Program circumstances, to what degree the PforR Program systems:	
Consider conflict risks, including distributional equity and cultural sensitivities.	Is the Program being implemented in areas of recognized fragility or in post-conflict zones? If so, what special risks does this context present regarding the achievement of E&S objectives and outcomes?
	 Could the Program contribute in any way to underlying tensions or civil strife by reinforcing inequities or grievances?
	 Would support for the Program in any way prejudice one party's claims in land or territorial disputes?
	 Do the screening and design of Program activities consider the risks of creating or exacerbating social conflict, including conflicts with ethnic or racial dimensions, especially in fragile states, post-conflict areas, or areas subject to territorial or jurisdictional dispute?
	 Are Program agencies open to discussion with the Bank and consultation with stakeholders on potentially sensitive issues?

Annex B

ESSA Roles and Responsibilities of the World Bank and Borrower

The responsibility for carrying out the ESSA process and for preparing the ESSA Report rests with the World Bank, principally through the task team, supported by other internal Bank decision-makers and advisers. In practice, the Bank team relies heavily on the borrower (and counterpart implementing entities) to provide much of the background materials that describe the applicable E&S management systems. In addition, the borrower plays an essential role in informing the World Bank team about system performance, capacity constraints, and current practices. The overall responsibility for public consultations throughout the ESSA process and on the ESSA Report is the World Bank's. Nevertheless, in most cases, the Bank and the borrower collaborate closely on the organization of formal public consultation events.

The following table captures the essential division of labor between the Bank and the borrower in a typical PforR operation.

PforR operation phase	Borrower / counterpart	World Bank
Identification	 Provide the initial definition of the scope of the proposed Program. Provide initial briefings and reference materials on existing E&S management systems, regulatory frameworks, and capacity as relevant and applicable to the proposed Program, as requested by Bank task team. Facilitate initial discussions with Bank team and key stakeholders on applicable E&S management systems. Discuss and reach agreement with Bank task team on the scope, timeframe, key milestones, public availability, and consultations to be carried out during ESSA preparation. 	 Determine the geographic and thematic boundaries of the Program for purposes of ESSA. Determine whether any activities meet the exclusion criteria under the Program and would not be eligible for PforR Financing. Conduct identification/conceptstage risk screening of Program proposal for potential E&S effects. Confirm initial risk screening, application of exclusion criteria, and ESSA scope of work with PforR advisors at the Program Concept Review decision meeting. Inform counterparts about E&S aspects involved in

PforR preparation and implementation phases.

- Conduct initial meetings with counterpart agencies and key stakeholders to develop understanding of strengths and weaknesses of existing E&S management systems.
- Reach agreement with borrower on all processing steps required during the remaining preparation phase.

Preparation

- Provide Bank task team any available documentation on potential E&S effects of the Program.
- Provide detailed information on the enabling environment: legal and regulatory framework, technical standards, mandatory operational manuals, etc.
- Provide detailed information on how the country systems manage likely E&S effects, particularly adverse impacts that cannot be avoided.
- Share information with Bank task team on system performance; provide examples of current operational experience and the state of the practice with respect to E&S management systems.
- Share examples of implementation experience with the Bank task team.
- Facilitate field visits to observe typical program activities.

- Carry out the ESSA in accordance with agreed scope of work/TOR.
- Meet periodically with E&S management counterparts to confirm understanding of procedures, standards, and approach.
- Work with borrower to identify in greater detail the potential scope and scale of associated E&S effects.
- Ascertain whether current systems have the resources and authority necessary to mitigate unavoidable impacts.
- Seek independent information on and confirmation of aspects of practice and performance from knowledgeable experts, system users, and other stakeholders.
- Identify measures to address any gaps and enhance the system and its performance.
- With borrower, develop and reach agreement on

- Facilitate Bank consultation with key stakeholders, including on the draft ESSA Report (may also require follow-up during appraisal phase).
- any specific measures needed to improve system performance during implementation.
- Develop a systematic mapping of relevant stakeholders and develop strategies to reach out to, and seek feedback from, them.
- Lead the process of consultation with relevant stakeholders regarding the draft ESSA findings and any proposed specific actions. (See Annex E for more detailed guidance on stakeholder engagement under PforR.)
- Before appraisal, disclose draft ESSA Report in a manner accessible to key stakeholders (format, location, language, etc.) and specify a period during which comments are to be received and considered.
- Ensure that ESSA includes a section on recommendations from the task team. PAD should ensure that agreed actions and recommendations are clearly described.
- Before appraisal, disclose Program Information summarizing ESSA findings and recommendations, including, as appropriate, arrangements to have a GRM in place before implementation.

PforR operation phase	Borrower / counterpart	World Bank		
Appraisal	 Review and provide comments on the ESSA Report to clarify content, conclusions, recommendations, proposed actions, and/or DLIs. Reach agreement on timetable and any financial measures necessary to improve Program performance. Facilitate any additional stakeholder consultations needed. 	 Ensure that appropriate consultations with key stakeholders have taken place during the ESSA process. If not done earlier, conduct formal consultations with key stakeholders on the draft ESSA Report. Ensure that key recommendations of ESSA are incorporated into the PAP in a meaningful time frame for implementation, budgets, and institutional accountability. Finalize ESSA Report, including incorporating agreed actions. Agree on measures for monitoring E&S management performance. After appraisal, disclose final ESSA Report, including all recommended actions. 		

Implementation

- Implement any agreed E&S actions included in the PAP.
- At a minimum, maintain E&S systems and performance at levels equivalent to those evaluated in the ESSA. Reach agreement on reporting mechanisms to demonstrate continued compliance with applicable systems.
- As needed, carry out periodic monitoring, performance evaluation, and audits of system performance.
- Regularly review performance of GRMs and Program responsiveness to grievances received.
- Confer with the Bank before implementing any changes to applicable systems during implementation.

- In collaboration with the borrower, provide regular implementation support for the Program: monitor Program performance, including implementation of relevant sections of the PAP; provide technical support for systems improvement; and monitor implementation of any agreed actions to improve Program performance.
- Review Program monitoring results and/or system audits periodically in conjunction with key counterparts and stakeholders.
- Conduct periodic site visits to review Program implementation under field conditions.
- Regularly review performance of GRMs and Program responsiveness to grievances received.
- Evaluate proposed changes to systems that may be necessary to adapt to changing circumstances or unforeseen conditions.

Annex C

Environmental and Social Risk Screening at the Concept Stage

A. Background

- 1. The preparation of an ESSA is an iterative, multistep process for identifying, avoiding, minimizing, and managing potential adverse E&S effects of proposed PforR Programs. Broadly speaking, the risk screening for PforR operations entails (a) the application of the exclusion criteria—activities with certain characteristics are not eligible for inclusion in a PforR operation; (b) the completion of identification and/or concept-stage risk screening to systematically evaluate potential risks associated with Program activities; (c) the preparation of the ESSA Report to provide an in-depth assessment of E&S issues identified; and (d) the articulation of recommended measures such as PAP items, disbursement-linked indicators (DLIs), and other loan conditions aimed at managing and monitoring risks.
- 2. This annex recommends an approach for preparing the initial concept-stage E&S risk screening. The exercise involves systematically screening all proposed Program activities for potential E&S risks across a range of risk criteria. If applied in a comprehensive manner, the methodology can be an effective way to:
 - Identify potential risks early in the PforR preparation process;
 - Build consensus among key stakeholders (Bank task team, Management, borrower, and potentially affected people) on the nature and priority of these risks;
 - Identify trade-offs among risks (i.e., consider benefits as well as adverse risks);
 - Define the scope of work for the ESSA;
 - Facilitate dialogue within the World Bank and among the World Bank, the borrower, and other Program stakeholders on required management measures or actions; and
 - Serve as a basis for future implementation support and monitoring to determine whether the envisioned risks materialized and to assess their significance.
- 3. The methodology is most usefully applied at the program identification or concept stage, though it is also useful during preparation as the scope of the Program's coverage becomes more clearly defined. If applied systematically, the methodology helps teams identify most key risks in any proposed operation.
- 4. The risk screening methodology is intended to be simple yet robust enough to identify issues of importance. The goal of the risk screening is to identify the main risks of Program activities and to estimate both their probability of occurrence and the severity of their impacts if they materialize. It is recommended that the methodology be used in "focus group" settings, where teams of E&S Specialists, together with other experts or stakeholders, brainstorm on the likelihood and severity of risks, with consensus as their goal. The risk screening can be used to build consensus and prioritize the most important issues for consideration by the Bank task team and Management as appropriate.

B. Risk Criteria

5. The initial risk screening methodology considers Program risks using four criteria.

- Likely E&S effects. Refers to the main benefits and to adverse impacts and risks that are likely to be associated with the Program activities. The severity or significance of these impacts, in part, are related to the scale of interventions, the specific site characteristics, the relationship to critical environmental values, and the relationship to other ancillary or associated investments. Typically, the task team describes the direct physical impacts of works or other activities—for example, land acquisition, air and water pollution, loss of or damage to valued habitats or cultural heritage, community and worker safety, vulnerable groups—but also includes, where relevant, potential cumulative, indirect, or induced effects. These are typically referred to as risks/impacts "from" the Program.
- Contextual risk factors. Refers to E&S conditions in the Program area that may have significance for Program design and implementation. For example, is the Program working in sensitive E&S settings that may intensify potential impacts? Are Program activities likely to interact with existing or other planned activities that may modify or increase the likelihood of adverse impacts? Are there legacy or other unresolved E&S issues from previous investments that might create lack of social commitment to the program goals? Contextual risk factors include potential risks to Program sustainability, with emphasis on identifying risk factors that may impede achieving successful Program outcomes over time and whose future outcomes are unknown—for example, climate change or disaster risk. Recent or ongoing social conflict or social fragility are also included.
- Institutional capacity and complexity risks. Refers to the borrower's organizational, administrative, and regulatory structures and practices as they relate to E&S assessment, planning, and management of the Program. The Bank task team makes an early assessment of the likelihood that such factors may impede or undermine an organization's or institution's ability to effectively carry out its E&S roles and responsibilities. Institutional or organizational risks may stem from complexity of roles or a lack of capacity to implement. In general, it could be argued that more complex institutional settings could present higher risks of failure when multiple agencies at different levels of jurisdiction may have responsibilities under the Program. For example, a Program involving multiple national, subnational, and local institutions and organizations (e.g., a national water supply and sanitation program) likely presents higher risks than a Program focused on a small set of issues within the control of a single agency (e.g., a national road maintenance program).
- Political and reputational risks. Refers to E&S issues, trends, or other factors that
 may cause the borrower (country), the Program, or the World Bank to be exposed
 to significant reputational or political risk. Reputational or political risks can take
 many forms, ranging from individuals' complaints and grievances about the
 Program to organized national or international advocacy campaigns against the
 Program or its activities. Such risk factors may relate to the specifics of a Program's
 activities; the performance, track record, or legacy of the sponsor; the strategic
 goals of the Program; or some perceived violation of national law, policy, regulation,
 or procedure.

In some cases, such risks may not be directly or even indirectly linked to the Program in fact, but only in public perception. Risks may also be related to concerns over a borrower's historical failure to implement its E&S policies. Bank task teams assess, for example, whether aspects of the Program are known to be controversial. Is there a track record of known stakeholder advocacy or dissent regarding Program

activities? Are program activities known to be politically sensitive, or could they lead to or aggravate social conflict? Do the program counterparts have a proven track record in managing complaints or dissent? Political and reputational risk issues are likely to be dynamic, and they can change frequently and rapidly in any given Program context.

C. Rating Environmental and Social Risks

- 6. At the concept stage, when Program design changes, or as significant new information becomes available, the Bank task team assesses Program activities against the four criteria using one of four ratings: High, Substantial, Moderate, and Low (see Box 1). In assigning this rating, team specialists apply professional judgment based on operational experience and country knowledge to evaluate the likelihood and severity of various risks in each category. The Bank task team then assigns a single aggregate risk rating based on the four criteria.
- 7. Like any risk rating system, this approach presents challenges. First, the risk criteria are not mutually exclusive; there may be some overlap and interaction among them. For example, strong institutional capacity to manage likely effects may attenuate High-risk activities, or weak capacity may exacerbate otherwise Moderate-risk activities. Second, the boundaries between the ratings are not always clear or well defined. It is not clear, for example, when an issue passes from Moderate to Substantial, nor is it clear what management measures may turn a High-risk activity into a Moderate risk. Risk ratings vary by individual, depending on the rater's risk tolerance, confidence in the proposed mitigation of management measures, or experience with similar programs. Third, risk ratings are often done early in the decision process when not all information may be readily available to the task teams. For example, information on how well the Program systems manage risks—which informs the difficult decision to exclude an activity—may not be evident until very late in the preparation process. These are matters of judgment but, like any judgment, should be properly documented to demonstrate the team's decision process.
- 8. Despite these challenges, the risk rating approach is useful as it provides an opportunity for any Bank task team member or stakeholder to identify potential risks. While it is not always possible to clearly articulate absolute risks, the approach almost always helps teams to identify relative risks and therefore prioritize the need for more analysis or stronger management measures. One of the most useful outcomes of this process is the internal discussion and debate around potential risks. Thus, the risk evaluation process is viewed as an iterative process that provides information throughout the operation's lifetime.

D. Presenting the Results of Risk Screening

9. Bank task teams have some discretion in how they present the findings of the risk screening. Many teams choose a matrix-style presentation that indicates the various risk ratings and comments against the Program activities or results areas. The matrix approach allows for an easy comparison of risks across factors but may be too constraining in terms of how teams describe issues. Other teams may wish to present the findings as a written narrative that covers the risk issues more sequentially. A narrative approach allows for a fuller description of issues but does not always allow for ease of comparison.

- 10. In all cases, the presentation identifies the risk issues considered, summarizes the team's discussion of why they consider the issue important or not, and presents the risk rating for each category. At the end of the exercise, teams present a single overall E&S risk rating for the proposed operation. Programs with an aggregate risk rating of High are not normally considered eligible for PforR Financing.²⁷
- 11. Programs with an aggregate risk rating of Substantial or individual risk ratings of Substantial or High in one or more criteria are subject to further discussion among the task team and with Management to determine whether such risks require special management measures, or whether the activities are excluded from the proposed Program.

E. Validation of Risk Ratings

- 12. The results of E&S risk screening are to provide input to the initial decision to proceed with a PforR operation. Thus, task teams are strongly encouraged to validate the proposed risk ratings as part of the Program Concept Review as well as any subsequent decision meetings, following changes in Program design, or when significant new information becomes available to them.
- 13. While the preparation of the risk screening is the responsibility of the Bank task team, several key stakeholders—the relevant Safeguards Advisor, a representative from LEGEN, and a representative from the OPCS corporate review team—should normally be involved in conducting the risk screening. While Safeguard Advisors do not have a formal clearance role in this process, their participation is critical to ensure that any concerns are identified as soon as possible. The findings and recommendations of the Bank task team are presented at the Program Concept Review meeting and recorded in the minutes of the decision meeting.

Box 1. Risk Rating Guide

The following descriptions illustrate how risk ratings are applied in a PforR operation. To encourage consistency among instruments, the approach is similar to the one used for the SORT rating system. The overall risk rating for PforR operations considers the various risk factors in an integrated manner. For example, similar Program activities have a different risk profile depending on the context, the institutional setting, or reputational or political factors. Country knowledge and professional experience are key.

High. There is a strong likelihood that Program activities would lead to significant impacts that adversely affect people or the environment. In the absence of direct management interventions, it is also highly likely that the Program may not achieve its operational objectives or sustain the desired E&S outcomes because of risks related to context, institutional complexity/capacity risks, and/or political and reputational risks. While the operation is likely to have excluded activities that have adverse E&S impacts that are sensitive, diverse, and/or unprecedented, there is still a possibility that some serious

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²⁷ In most cases, the use of the exclusion criteria have already flagged high-risk activities. However, in some situations the criteria may not be sensitive enough to context, institutional capacity, or other risk factors that may be flagged in the screening process.

impacts occur. In some cases, there may not be readily available or tested technical mitigation measures.

High-risk operations are likely to be complex in terms of both their design and their institutional arrangements; they may have a large geographic footprint, or they may be distributed widely among various jurisdictions with varying degrees of implementation capacity; and/or they may have strong potential synergistic or cumulative effects with other initiatives and involve mitigation or management measures that are complex or unproven. The operation may also have significant adverse impacts on GHG emissions resulting from changes in the intensity or efficiency of emissions generation and controls. The program may include activities in areas that are prone to natural disasters or may exacerbate such risks. The operation may also be likely to have significant adverse social impacts on Indigenous Peoples, the poor, or other vulnerable groups and have the potential to contribute directly to increased social fragility or conflict. Such operations are likely to be controversial and may involve ongoing national or international advocacy campaigns that could lead to implementation delays and increased costs. The likelihood is high that Program activities lead to many complaints and grievances because of unresolved adverse impacts.

Substantial. There is a strong likelihood that that Program activities would lead to adverse E&S consequences. It is possible that the Program may not achieve its E&S operational objectives or sustain the desired E&S results because of context, institutional complexity, or reputational risks. However, these risks are less diverse or complex and many are more predictable than for a High-risk Program. Known and demonstrated risk management measures I likely available. While the borrower may have some demonstrated capacity to manage risks, it does not demonstrate this capacity consistently, and some E&S risks may still be beyond the direct control of the operation.

The operation may have potential adverse environmental impacts, but they are less severe. Such impacts could be on environmentally or socially sensitive areas, but the operation is less likely to have a large footprint; impacts are site-specific and less diverse and complex; and there is less potential for strong synergistic or cumulative impacts. The operation may also have some adverse impacts on GHG emissions or may lead to change in the emissions intensity or efficiency. The operation may also present potential adverse effects on gender, vulnerable groups, poverty, or equity, and may have the potential to aggravate existing situations of fragility or conflict. The operation is less likely to be subject to national or international advocacy campaigns, but poor borrower performance could lead to significant complaints and grievances if affected people consider, or perceive, that the operation is leading to harm.

Moderate. There is a moderate likelihood that Program activities would lead to some E&S consequences. Program activities are not likely to require significant changes to the borrower's overall management approaches, and it is also highly likely that the Program achieves its operational objectives and sustain the desired E&S outcomes because of lower context, institutional complexity/capacity, or political and reputational risks. These risks are well understood and are expected to be limited in impact. The borrower's implementing agencies usually have a proven track record in managing identified risks and, while not perfect, they have more limited needs for capacity-building measures.

The operation may have some adverse E&S impacts, but they would tend not to be in environmentally or socially sensitive areas. Program activities are small in scale and their

impacts are well known and manageable with standard procedures; they do not require unproven mitigation or management measures. The operation is unlikely to have significant adverse impacts on GHG and would not be at risk of natural disasters such as flooding, earthquake, or severe weather events. The operation may also have limited likelihood for adverse effects on gender, vulnerable groups, poverty, and equity.

Low. There is a low likelihood that the achievement of the operational objectives could be affected by E&S risk factors (including those related to climate change and natural disasters) because they are not present or are not relevant to the operation. The operation is not likely to have adverse impacts on GHG emissions or change the emissions intensity or efficiency. Activities are not likely to be controversial, and the borrower has demonstrated capacity for managing risks.

Annex D

Preparing the Environmental and Social Systems Assessment Report

- 1. This annex recommends an outline for an ESSA Report, the principal report to Management that documents the main findings and recommendations from the ESSA process. The ESSA Report provides a staff assessment of the risks and opportunities associated with the proposed PforR financing. It documents the main E&S impacts and risks of the proposed operation, the ability of the Program systems to manage those risks, and measures to enhance or improve system performance.
- 2. The ESSA Report also serves as the basis for stakeholder consultations. As the only World Bank document that is disclosed before the Bank's appraisal of a PforR operation, it is the main mechanism for informing stakeholders and other interested parties about the scope of a PforR operation before it is approved by the Bank. The ESSA Report provides sufficient details to allow stakeholders or other interested parties to fully understand the proposed Program's objectives, scope of activities, and E&S implications.
- 3. Finally, the ESSA Report describes the baseline characteristics of the applicable Program E&S systems. It is an essential tool for implementation support and future supervision, and it is the basis for any agreed borrower actions. The World Bank expects that the borrower, at a minimum, keeps the applicable systems at the baseline levels documented in the ESSA Report.
- 4. To varying degrees, all ESSA Reports address the following questions:
 - What are the PDOs, key results areas, activities, and DLIs of the proposed Program?
 - What are the key E&S effects (benefits, adverse impacts, and risks) of activities associated with the proposed operation?
 - What management systems—legal and regulatory frameworks, institutional accountabilities, organizational structures, human and financial resources, etc.—does the borrower have in place to manage these effects?
 - To what extent are the borrower's systems effective, in practice, at addressing the identified effects and carrying out their institutional responsibilities?
 - To what extent are the borrower's management systems expected to result in outcomes that are consistent with the core principles and key planning elements defined in the Policy and Directive?
 - What changes or enhancements are required to ensure that the borrower's systems will be consistent with PforR principles and effective at managing the Program effects?

Suggested Outline of an ESSA Report

5. Each ESSA Report includes the following sections:

Section I. Program Description.

Section II. Description of Expected Program Environmental and Social Effects (including benefits, adverse impacts, and risks).

Section III. Assessment of Borrower's Environmental and Social Management Systems relevant to the Program (including description of the applicable borrower systems; assessment of borrower practices and performance record; and assessment of the borrower systems against core principles and planning elements).

Section IV. Recommendations and Actions: Inputs to the PAP and Implementation Support Plan.

Section V. Supporting Annexes and Reference Documents.

- 6. The ESSA Report also includes, as relevant, annexes to provide detailed information on, for example, the risk screening conducted by the task team, the comparison of borrower systems with core principles and planning elements, and the assessment of borrower capacity to manage identified impacts and risks. The depth of coverage on each of these issues varies, depending on the complexity of the proposed operation, its scope, its location, and the institutional requirements of the Program. Not all ESSA Reports need to include the information outlined above if it is not relevant to the proposed operation. For example, if a proposed operation does not have any potential adverse social impacts and does not require any social management measures, the ESSA Report would not need to cover that area beyond providing a rationale for the conclusion that there are no issues to be addressed
- 7. There are no fixed rules governing the length of an ESSA Report. Task teams are encouraged to be pragmatic and use the ESSA Report efficiently to address key issues of concern for Management attention. In general, the main ESSA Report should not exceed 25-30 pages, but it may also include supporting annexes. The report provides sufficient detail to allow the reader to understand the basis of Bank findings and recommendations, but is not burdened with excessive details, which may be better placed in an annex or in supplemental analytical reports. It clearly identifies any changes or enhancements that are required to make the borrower's systems adequate for managing the E&S risks and impacts of the Program, and the timeframe in which these need to be put in place. It also makes additional recommendations for system strengthening to enhance E&S benefits, but these recommendations are clearly distinguished from required actions. If a proposed operation has no (or very minor) adverse impacts or risks, the ESSA Report need not be overly complex or unnecessarily detailed.
- 8. Each of these sections of the ESSA Report is described in more detail below.

Section I: Program Description

- 9. Each ESSA Report provides a clear description of the scope of the proposed PforR operation and its strategic and institutional context. The information provided is based on the best Program description available before appraisal, but on rare occasions the description may be modified if changes are made before negotiations are completed.
- 10. Typically, Section I includes the following information:

- Description of the scope and thematic boundaries of the Program, including details on what activities are included, and a description of any expected physical works, activities, policy actions, or services defined in the Program's expenditure framework.
- Description of the geographic scope of the Program. For example, it is clearly indicated whether the Program is national or subnational in scope. Does it involve multiple jurisdictions such as towns and municipalities?
- Identification of any differences in geographic or thematic scope between the borrower's program and the Bank-financed Program.
- List of the key implementing agencies and implementing partners involved in the Program.
- Description of the borrower's previous experience, if any, with implementation of its program. Include a brief consideration of other activities undertaken by the same program agencies that may be related to the proposed Bank-financed Program.

Section II: Description of Expected Program Environmental and Social Effects

- 11. Section II provides a detailed description of the likely E&S effects associated with the Bank-supported Program and of any other relevant risk factors. The description of effects distinguishes between the effects of the associated borrower program and those of the Bank-supported Program, including reference to any associated facilities or potential indirect or cumulative impacts.
- 12. While the ESSA aims at an integrated approach to assessing E&S effects, for practical purposes it may be useful to present E&S issues in separate sections or chapters. The ESSA identifies potential areas of overlap on E&S effects and the need for coordination on stakeholder engagement and consultations.
- 13. The discussion describes both E&S benefits and any adverse impacts. In general, this section describes E&S concerns in relation to the four criteria used in the risk screening process: likely E&S effects, contextual risk factors, institutional capacity and complexity risks, and reputational and political risks.
- 14. When describing the potential effects of a Program, the ESSA Report considers the core principles and the key planning elements (implications for environmental quality, land acquisition, Indigenous Peoples, cultural heritage, natural habitats, worker and community safety, etc.). Annex A provides an analytical framework to guide teams on the types of information to be gathered for each principle.

Section III: Assessment of Borrower's Environmental and Social Management Systems

15. Section III describes the E&S management systems in place to manage all identified E&S effects, especially adverse impacts and risks. This section describes the main elements of applicable borrower systems and provides an analysis of the acceptability of these systems, considering the level of risk and the extent to which borrower systems and practices are aligned with Bank core principles. In practice, this section is often based on, or builds on, existing analytical work such as Use of Country Systems assessments, the Environmental and Social Impact Assessments and Management Frameworks used in investment operations, or systems assessments carried out in-

- country by other development partners.
- 16. This section provides the team's assessment of the extent to which the applicable systems are consistent with the core principles and key planning elements described in the Policy, the Directive, and this Guidance. It identifies ways in which applicable Program systems differ from relevant core principles and assesses the operational significance of these differences. It also provides an assessment of the client's intention/commitment to address key differences. Typically, the detailed comparison of borrower systems against core principles is presented as an annex to the ESSA Report, and the main text of the report summarizes the team's findings.
- 17. More specifically, Section III covers the following:
- Environmental management systems: information on the division of responsibilities among the different levels of government that are accountable for implementing environmental management, including E&S analysis; internal review and clearance procedures such as licensing; stakeholder involvement in planning and implementation; information disclosure; GRMs; and supervision and oversight, monitoring, and evaluation. It also discusses the relevant legal and regulatory framework, standards, rules, and procedures applicable to activities under the Program.
- Social management systems: the institutional responsibilities for implementing social management, specifically in areas applicable to the Program, which include resettlement/land acquisition; procedures for resettlement planning; scope of social assessment and/or social analysis; eligibility for compensation under resettlement and land acquisition programs; supervision; consultation requirements; stakeholder involvement in planning and implementation; communications and information disclosure strategies; GRMs; oversight and monitoring, including indicators and funding of resettlement; Indigenous Peoples' rights, procedures, and requirements; vulnerable people such as landless or informal settlements; social conflict; and international social agreements and treaties. It should also discuss the legal and regulatory framework and procedures applicable to the Program.
- 18. Working from the system description provided above, the task team summarizes its assessment of the capacity of Program institutions to effectively implement the Program's E&S management system as defined in various rules, procedures, implementing guidelines, and so on.
- 19. The report assesses and documents:
 - The adequacy of institutional organizations and division of labor, and the likelihood that the applicable E&S management systems can meet their goals.
 - The adequacy of institutional capacity (staff, budget, availability of implementation resources, training, etc.) to carry out defined responsibilities under the applicable Program system.
 - The effectiveness of interagency coordination arrangements where multiple agencies or multiple jurisdictions are involved.
 - The past performance of the implementing agency in ensuring that the rules and procedures are being followed.

Section IV: Recommendations and Actions

Inputs to the Program Action Plan

- 20. Section IV includes a summary of the actions and measures the borrower is required to take during implementation to improve system performance. The section identifies key gaps between the counterpart systems and the PforR core principles and key elements. Actions are expected to be incorporated into the PAP and should be detailed and specific with respect to institutional responsibilities, timeline, and indicators for completion of actions. Typically, these actions limited in number and scope. In some cases, actions may be defined as DLIs or other conditions as part of the PAP and referred to in the Program Legal Agreement. Such actions and measures are legally binding.
- 21. In addition, optional recommended measures may be included to help counterparts improve their system performance within their own defined procedures. Such assistance includes specific mitigation measures to address certain impacts, or organizational measures to improve overall implementation effectiveness that are considered to be desirable but not necessarily essential to E&S systems performance.

Inputs to the Program Implementation Support Plan

- 22. Task teams work with borrowers to structure the support that the Bank provides in relation to the Program's E&S aspects during the implementation of a PforR operation. Implementation support usually includes the following:
 - Reviewing implementation progress and achievement of Program results and DLIs;
 - Helping the client resolve implementation issues and carry out institutional capacity building;
 - Monitoring the performance of Program systems, including the implementation of agreed E&S strengthening measures in the PAP;
 - Monitoring changes in Program risks as well as compliance with the provisions of legal covenants; and
 - In collaboration with the client, adapting management practice in a manner consistent with PforR principles as necessary to improve program implementation or to respond to unanticipated implementation challenges.

Section V. Supporting Annexes and Reference Documents

23. The ESSA Report typically includes several supporting annexes and/or reference documents that provide more details on the analysis, conclusions, and recommendations presented in the main report. Annexes and reference documents may include a description of the task team's risk screening template; detailed references to the applicable legal and regulatory framework; detailed capacity and system assessments comparing borrower systems to Bank principles and planning elements; key references, sources, and websites used; a summary of public consultation events; and a list of individuals and organizations met by the Bank team during preparation

Annex E ESSA Consultations and Disclosure²⁸

A. Background

- 1. Consultation with key Program stakeholders is required under PforR financing, just as it is under IPF operations. The objective and purpose of consultations for the ESSA in PforR operations are essentially the same as for E&S assessments in IPF operations.
- 2. A key difference is that in PforR, the World Bank task team itself is responsible for managing the ESSA consultation process, whereas during the preparation of an IPF operation the client is responsible for managing all consultations. As the Bank is responsible for preparing the ESSA, it is also responsible for ensuring that relevant stakeholders are consulted about the Program's E&S effects and the capacity of Program agencies to manage them effectively.
- 3. Bank task teams formulate an explicit, customized consultation/stakeholder engagement strategy from the start of the ESSA Process. The strategy is based on systematic mapping of Program stakeholders and includes definition of key issues; differentiated methodologies to be used for consultations with different groups; and timelines for implementing consultations throughout the lifecycle of the operation. At a minimum, ESSA consultations are expected to achieve the following goals:
 - Provide meaningful opportunities to engage Program stakeholders with information about the scope, timing, expected effects, and proposed management measures of the Program;
 - Seek inputs, feedback, and/or confirmation from stakeholders on the factual basis and assumptions used to prepare the ESSA Report, for example, in relation to the application of laws and regulations in practice;
 - Provide an opportunity for stakeholders to seek clarifications about the basis for any judgments made by the Bank team about the adequacy or acceptability of any aspect of the Program's E&S effects or proposed management actions; and
 - Offer an opportunity for stakeholders to suggest alternative management measures.
- 4. Because PforR operations are assessed against a specific program context, the Bank's approach to consultation is also adapted to the specific context. This typically requires that Bank task teams:
 - Devise a consultation/stakeholder engagement strategy tailored to the specific Program and country context;
 - Pay close attention to the quality of communication processes throughout Program preparation and appraisal; and

²⁸ Annex E focuses on the requirements for World Bank consultations for the preparation and finalization of the ESSA Report. The ESSA Report itself should address the borrower's capacity to engage stakeholders, ensuring meaningful consultation and participation during the implementation of the Program.

• Document all consultation events and, as appropriate, ensure that the outcomes of such events are considered and reflected in the final ESSA Report.

B. Devising a Consultation / Stakeholder Engagement Strategy

- 5. Fitting the consultation process to a specific Program context, including the social and political environment in which the Program operates, is a key consideration in meeting the Bank's consultation responsibilities. Bank task teams cannot rely on a standard or generic consultation protocol because Programs and the capacities of Program agencies vary widely.
- 6. Consultation processes may include both informal and formal consultation sessions or events. For the purposes of this Guidance, formal consultations means meetings that are usually public in nature and often involve multiple stakeholders. Formal meetings tend to follow highly structured formats and have fixed agendas, often agreed with stakeholders in advance at critical milestones of project processing. More formal sessions may involve the use of independent facilitators and typically have very structured arrangements for access for vulnerable and disadvantaged groups, clear rules of order, and agreed forms of documentation of the event.
- 7. Informal consultations, on the other hand, are much less structured in advance and often involve direct communications without a facilitator or formal documentation procedures. Such events normally involve one-on-one meetings with individuals or small focus groups. The approach is usually more casual and less structured, and the meetings are not typically open to the public. The Bank may hold such consultations with individuals or organizations with highly specialized knowledge or experience with system implementation. The use of such direct approaches to communication with key stakeholders (who could be experts, critics, or others) is important for validating and updating ESSA findings.
- 8. As appropriate, the stakeholder engagement strategy is also extended to the implementation phase, especially in operations that include activities with Moderate to Substantial E&S risks and impacts or that are distributed widely across multiple jurisdictions or large geographic areas. Stakeholder consultations during implementation are important to verify that systems are being implemented as expected, that the risk profile established at appraisal is still valid, and that new or previously unidentified risks are flagged for additional actions.
- 9. The borrower is responsible for ensuring appropriate stakeholder engagement more generally, throughout Program implementation. The ESSA includes an assessment of the Program agency's disclosure and consultation policies and practices and, as necessary, identifies aspects that require strengthening. For a new Program, this includes reviewing proposed Program agency arrangements for consultations on Program design and implementation of activities.

C. Organizing Effective ESSA Consultations

10. During preparation, and before finalizing the ESSA Report, the Bank task team consults with key stakeholders. These consultations need not be universal or exhaustive in scope, but they are normally conducted with a representative sample of affected people or beneficiaries who have either been affected (positively or adversely) by previous program activities or who might be affected by future operations.

- 11. The following are among the issues that would be discussed with stakeholders:
 - Their understanding of the Program and its expected E&S effects;
 - The quality of the consultations conducted by Program officials;
 - The availability of Program information and transparency about the Program;
 - Experience regarding the government's commitment and capacity to implement E&S management systems (e.g., enforce occupational health and safety or pollution laws, provide timely and complete compensation for land acquisition, etc.),
 - Concerns related to the E&S sustainability of the Program;
 - Recommendations for mechanisms for communicating with Program officials and opportunities for expressing concerns or grievances;
 - Experience with key elements of the E&S principles articulated in this Guidance; and
 - Recommended changes to the Program scope or design needed to limit E&S impacts and risks and improve E&S sustainability.
- 12. Consultation methodologies are diverse and flexible, using a range of modalities and approaches. The Bank ensures that adequate notification and lead time are provided for any consultation meetings; that information is provided in a language and form accessible to those being consulted; that people are provided ample opportunity to express their views or concerns; and that the minutes and recommendations resulting from those meetings are recorded and properly documented by the Bank team.
- 13. Regarding the need for translation: the ESSA is usually prepared in English, and teams may be reluctant to translate the entire document because of the costs and perhaps limited reference of all aspects of the ESSA to stakeholders. Therefore, teams are encouraged to provide summaries, fact sheets, brochures, slide presentations, etc. in the local language(s). Summaries prepared for consultations should use non-technical language to the extent possible, and should emphasize "action" points, such as what actions are proposed for the PAP, who is responsible, and how progress is reported, among other issues.
- 14. The following are key points to keep in mind when organizing consultations:
 - **Timing.** The Bank's informal consultation process—meetings, interviews, informal group discussions—are initiated at an early stage, so that information obtained can be taken into account during preparation of the draft ESSA.
 - **Scope.** The focus of informal and formal consultation processes is limited to obtaining and validating information that is necessary for the ESSA itself; the process may become wasteful or unproductive if topics extend beyond the Program, or step into detailed aspects of Program design better left to Program agencies.
 - **Prior information.** Those being consulted need to have relevant information presented to them in advance so that they are adequately informed and they have the opportunity to formulate their views.

- Openness. Venues and methods need to encourage the frank and honest expression
 of views, preferences, and concerns. Consultations with stakeholders provide
 environments where participants are safe and where all views are respected. In some
 cases, this may involve organizing separate events with disadvantaged or vulnerable
 groups to ensure confidentiality of inputs, as well as allowing for views to be expressed
 without fear of reprisal.
- Inclusiveness. Some form of sampling is very often necessary, and the sampling should aim to get a representation of key stakeholder groups. Attention needs to be given to geographic dispersion, work patterns, language use, and other variables that could unduly limit the ability of groups to participate in consultations. Special efforts may be necessary to ensure the participation of Indigenous Peoples or other groups who may be politically or socially marginalized, including racial or ethnic groups, and caution may be necessary in assessing the validity of individuals or groups claiming to represent the interests of others.
- Responsiveness. The results of informal consultation measures are considered during ESSA preparation and, as appropriate, discussed with Program agencies. If an immediate response to issues raised by stakeholders is not practicable, some form of follow-up response to stakeholders may be advisable after further consideration of the issues.
- Sequencing and iteration. Informal measures (such as simple interviews or discussions) may be more appropriate at the early stages of ESSA preparation, whereas a formal consultation is required to present draft ESSA findings. As appropriate, it may be useful to consult with some key stakeholders more than once, initially to obtain their views and suggestions, and subsequently to ask whether the draft ESSA Report responds adequately to their concerns.

D. ESSA Consultations

- 15. The Policy for Program for Results Financing requires that the Bank consults with key stakeholders on the draft ESSA Report, including any proposed measures to strengthen Program risk management capacity that have been identified before or at appraisal. There is no specific method for identifying "key" stakeholders; each team needs to determine which stakeholders should be involved in formal consultations.²⁹
- 16. Groups or individuals with whom informal communications have occurred during the ESSA preparation need not necessarily be involved in formal consultations. But the overall consultation process (informal and formal) needs to reflect that the views and concerns of intended beneficiaries, groups that may be subjected to risks or impacts, and those with sufficient influence or resources to alter or obstruct Program performance, are heard and documented.
- 17. The form and modality of formal consultation on the draft ESSA Report may vary depending on the Program context, but the consultation is designed and conducted in a manner consistent with the qualitative guidance provided above. The team records the issues raised in formal consultations, as well as comments received following public disclosure, in a

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²⁹ For further guidance on good practices for preparing and carrying out meaningful stakeholder consultations, please refer to guidance materials prepared for ESS 10 of the World Bank's ESF.

- consultations' matrix, identifying date, location, attendance, issues raised, and response provided.
- 18. Consultation processes would normally be expected to be completed as part of Program preparation and appraisal. Any formal stakeholder meetings should be completed before finalizing the ESSA Report.
- 19. For formal consultations (i.e., consultations specifically on the draft ESSA Report), it is also important that arrangements be made to facilitate the involvement of key stakeholders. These arrangements should ensure that:
 - The announcement or issuance of invitations occurs well before the formal consultation dates, so that key stakeholders have ample opportunity to plan for their participation. Typically, the announcement of any public meetings are made at least 15 working days before the event. Any direct invitations are sent at least 10 working days before the event. Announcements of consultations meetings could also be made through various mechanisms, such as newspapers (national and local, as relevant), websites, radio or television, social media, and so on.
 - Formal invitations may be appropriate for multi-stakeholder meetings for which teams
 want to ensure that stakeholder groups are fully aware of the meeting and in which their
 inputs may be essential to clarifying positions. Often, invitations are essential to ensure
 that government representatives are able to participate, especially if their participation
 involves travel and subsistence costs.
 - If the draft ESSA Report was not disclosed before, or at the same time as, the consultation announcement, it is made available to key stakeholders (and the public) with sufficient time to read and consider it before formal consultations—at least 10 working days before the consultation event.
 - The time and venue for formal consultation needs to be reasonably convenient for key stakeholders. If stakeholders are widely dispersed, more than one date and venue may be necessary, especially if stakeholders are required to travel or take time away from work to participate in the meetings. In some cases, special consultation meetings may be held with separate groups, if there is concern about intimidation of participants. This may be especially needed when consulting groups that may be vulnerable or disadvantaged.
 - In some cases, it may be necessary for the Bank to provide transportation (maybe including accommodation) to enable some key stakeholders to participate. If this possibility is anticipated, the plan for stakeholder engagement needs to make provision for the costs. The Bank may consider alternatives to face-to-face public meetings, including virtual meetings, social media, feedback through websites, discussion forums, or other techniques and venues.
 - Consultation is conducted in the language in prevalent use among key stakeholders. If more than one language is in prevalent use, interpretation services need to be provided.

E. ESSA Disclosure

20. As the consultation process primarily targets key stakeholders, the Bank team is also required to publicly disclose the draft ESSA Report before the appraisal decision meeting

so that the views of interested members of the broader public may be solicited and considered before all Program decisions are made final. The final ESSA Report and recommended actions are to be completed before negotiations, and the final version is disclosed accordingly.

- 21. The following points indicate the recommended good practice and expected approach for ESSA disclosure:
 - Before appraisal, the Bank team discloses the draft ESSA through the Bank's website and at appropriate in-country locations such as a public information center or through the Bank country office website.
 - The Bank encourages Program counterparts to disclose the ESSA Report on their organizational websites but does not mandate it.
 - The task team discloses the draft ESSA Report on the World Bank website in English. In-country disclosure includes, as appropriate, documentation in the national language and, as may be warranted, in other languages that are in prominent use in the Program implementation area.
 - The team exercises some judgment on the extent to which all, part, or a summary
 of the ESSA should be made available in local languages. It may not be necessary
 to disclose all aspects of the ESSA report, especially when the report includes long
 annexes, analytical tables, and so on. Summary reports or other forms of
 documentation may be more appropriate to convey the findings and conclusions of
 the ESSA.
 - The Bank team establishes a time period during which comments are received and considered before the ESSA is finalized. Typically, the comment period is not shorter than 10 working days following a consultation event.
 - Comments outside of the consultation meetings are typically provided in writing. As
 feasible, task teams should seek to establish multiple lines of communication,
 including direct email, postal service, consultation websites, and so on.
 - The Bank team takes appropriate steps to publicize the disclosure of the ESSA Report (including the accessible location of the document and the period during which it is available for review). Disclosure of the ESSA may be in hard copy or digital media, recognizing that some stakeholders may not have capacity to print large documents.
 - Task teams need to be proactive in their approach to disclosure and should not rely
 on a single mechanism for disclosure. Stakeholders may be informed about the
 disclosure of the report through such means as advertisements in the press
 indicating where and when the report is available; announcements on Bank or
 counterpart websites; direct communication to stakeholders by email; regular postal
 service; and social media announcements.
 - After the comment period has passed, the Bank team considers all comments received and prepares the final ESSA. Disclosure of the final ESSA normally uses the same mechanisms as the draft ESSA—for example, websites, email communications—but no additional consultation with stakeholders on the finalized ESSA is necessary.
 - The final ESSA Report is disclosed before the Board approves the operation.

Table 1. Sample Consultation and Stakeholder Engagement Checklist.

Factors to be considered in formulating a consultation strategy	Comments
Who are the key stakeholders, and how are they likely to be affected by the proposed Program?	
What are the potentially most significant issues for each stakeholder group to be addressed in the ESSA?	
Which stakeholders can be consulted informally, and which are involved in formal consultations?	
Are there political or social sensitivities or constraints that may affect timely or open consultations?	
Are any key stakeholder groups unable or unlikely to participate in consultations because of exclusionary practices, language, threats of political repercussion, or other reasons?	
Are there legal issues that may constrain the Bank in conducting formal or informal consultations?	
If so, how can they be overcome or circumvented so that necessary communications can take place?	
What methods will be used in consulting with various stakeholders?	
Where the number of potential stakeholders is large and they are dispersed across a wide area, what sampling strategy will be used to ensure equitable and inclusive consultation?	
When and how will the consultation process unfold, so that results can be considered in the ESSA drafting and review process?	
What direct role will the Bank team (or Bank country office) have in arranging	

and conducting formal aspects of consultation?	
What facilitating role, if any, will the client (i.e., Program agencies) play in the consultation process? For instance, the Bank team may require logistical support, assistance in identifying interpreters, or other forms of facilitation.	
If Program agencies are fully open to dialogue, it may be desirable to encourage their presence at or jointly convene the formal consultation meeting.	
In any case, it will be useful to keep Program agencies informed about the evolving ESSA process, so that they are not caught by surprise when critical findings and recommendations are disclosed to the public	
How will the consultation process be brought to the attention of stakeholders, how will their participation be facilitated, and how will the results be documented and reported?	
What resources are necessary to support consultations? How will the draft ESSA Report be disclosed?	



Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 6: CI Project Implementation Manual (PIM)

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department CI PIM is currently not available. It will be prepared by the World Bank in due course of time which will be made available before the project enters into force.



Bangladesh

Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience

Design Report

Annex 7: Mainstreaming themes - Eligibility criteria checklist

Mission Dates: 24 October to 04 November 2022

 Document Date:
 11/04/2023

 Project No.
 2000003884

 Report No.
 6319-BD

Asia and the Pacific Division Programme Management Department

Mainstream	Mainstreaming themes – Eligibility criteria checklist						
	Be gender transformative	☐ Be youth sensitive	Be nutrition sensitive	Prioritize persons with disabilities	Prioritize indigenous peoples	☐ Include climate fina ☐ Build adaptive cap	
Situation analysis	National gender policies, strategies and actors Gender roles and exclusion/discrimination Key livelihood problems and opportunities, by gender	National youth policies, strategies and actors Main youth groups Challenges and opportunities by youth group	National nutrition policies, strategies and actors Key nutrition problems and underlying causes, by group Nutritionally vulnerable beneficiaries, by group	☐ National policies, strategies and actors ☐ Main groupings among PwDs ☐ Context-based barriers and opportunities for PwDs	☐ International standards, national policies, strategies and key IPs' organizations ☐ Main IPs communities, demographic, social, cultural and political characteristics ☐ Important livelihoods constraints and opportunities for IPs and their cultural heritage		
Theory of change	Gender policy objectives (empowerment, voice, workload) Gender transformative pathways Policy engagement on GEWE	Pathways to youth socioeconomic empowerment Youth employment included in project objectives/activities	Nutrition pathways Causal linkage between problems, outcomes and impacts	Pathways to PwDs' socioeconomic empowerment using a twin-track approach	Pathways to IPs' socioeconomic empowerment		
Logframe indicators	Outreach disaggregated by sex, youth and IPs (if appropriate) Women are > 40% of outreach beneficiaries IFAD empowerment index (IE.2.1)	Outreach disaggregated by sex, youth and IPs (if appropriate) Persons with new jobs/employment opportunities (CI 2.2.1)	Outreach disaggregated by sex, youth and IPs (if appropriate) Targeted support to improve nutrition (CI 1.1.8) Outcome level CIs CI 1.2.8 MDDW CI 1.2.9 KAP	Outreach disaggregated by sex, youth, disability and IPs (if appropriate)	Outreach indicator disaggregated by sex, youth and IPs IPs are > 30% of target beneficiaries		
Human and financial resources	Staff with gender TORs Funds for gender activities Funds for IFAD empowerment index in M&E budget	Staff with youth TORs Funds for youth activities	Staff or partner with nutrition TORs Funds for nutrition activities	Staff with disability inclusion-specific TORs Funds for disability inclusion-related activities (including accessibility)	Staff with IPs-specific TORs Funds for IPs related activities, including FPIC	IFAD Adaptation Finance IFAD Mitigation Finance Total IFAD Climate- focused Finance	\$0 \$0 \$0
ECG Remarks	Gender Nutrition Youth Persons with Disabilities Indigenous Peoples No social inclusion themes						

1/2 Draft Copy

2/2 Draft Copy