IFAD
Investing in rural people

Cambodia

Accelerating Inclusive Markets for Smallholders

Final project design report

Main report and appendices

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Currency equivalents

Currency Unit	=Cambodian Riel (KHR)
US$1.0	= KHR 4000

Weights and measures

1 kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

Abbreviations and acronyms

AC	Agricultural Cooperative
ADB	Asian Development Bank
AFD	Agence Française de Développement
AEZ	Agro-ecological zone
AIMS	Accelerating Inclusive Markets for Smallholders project
ASEAN	Association of South East Asian Nations
ASPIRE	Agriculture Services Programme for Innovation, Resilience and Extension
AusAID	Australian Agency for International Development (now Department of Foreign Affairs and Trade)
AWPB	Annual Work Plan and Budget
B2B	Business to business
BFP	Boosting Food Production Project (RGC)
C/S F	Commune *Sangkat* Fund
CARDI	Cambodia Agricultural Research and Development Institute
CAVAC	Cambodia Agriculture Value Chain Program (Australian funding)
CBC	Credit Bureau Cambodia
CC (1)	Commune Council
CC (2)	Climate Change
CDRI	Cambodia Development Research Institute
CEW	Commune Extension Worker
CGAP	Consultative Group to Assist the Poor (hosted by World Bank)
CIC	Central Investment Committee
CIP	Commune Investment Programme
CMO	Component Management Office
COSOP	Country Strategic Opportunities Programme
CSES	Cambodia Socio-Economic Survey
D&D	Decentralisation and De-concentration
DAO	District Agriculture Office
DCED	Donor Committee for Enterprise Development
DfID	Department for International Development (UK)
DGDT	Directorate General for Domestic Trade, MoC
DICO	Department of International Cooperation, MOC
EFA	Economic and Financial Analysis
EU	European Union
FBS	Farm Business School
FFS	Farmer Field School
FI	Financial Institution
FL	Financial Literacy
FO	Farmer Organizations
FSP	Financial Service Provider
GDA	General Directorate of Agriculture
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft fur Internationale Zusammenarbeit (German International Cooperation Agency)
GPS	Global Positioning System
GRF	Group Revolving Fund
HARVEST	Helping Address Rural Vulnerabilities and Ecosystem Sustainability
HCMC	Ho Chi Minh City
HH	Households
HIC	Hub investment committee
HPI-1	Human Poverty Index
HRD	Human Resource Development
IA	Implementing Agency
ICA	Investment Climate Assessment

ID Poor	Identification of Poor Household Programme, Ministry of Planning
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IP (1)	Implementing Partners
IP (2)	Indigenous People
IRR	Internal Rate of Return
KMC	Knowledge management and communication
LGF	Loan Guarantee Fund
LPA	Lead Project Agency
M&E	Monitoring and Evaluation
MAFF	Ministry of Agriculture, Forestry and Fisheries
MDGs	Millennium Development Goals
MEF	Ministry of Economy and Finance
MFI	Micro-finance Institution
MG	Matching grant
MIH	Ministry of Industry and Handicrafts
MIS	Management Information System
MOC	Ministry of Commerce
MOE	Ministry of Environment
MOP	Ministry of Planning
MOWA	Ministry of Women's Affairs
MOWRAM	Ministry of Water Resources and Meteorology
MRD	Ministry of Rural Development
MSME	Micro, Small and Medium Enterprises
MSP	Multi Stakeholder Platform
NAA	National Audit Authority
NCDD	National Committee for Sub-National Democratic Development
NGO	Non-Governmental Organization
NPV	Net Present Value
NSDP	National Socio-economic Development Plan
O&M	Operation and Maintenance
OECD	Organization for Economic Co-operation and Development
PADEE	Project for Agricultural Development and Economic Empowerment
PB	Programme Budgeting
PCR	Project Completion Report
PCC	Provincial Chambers of Commerce
PD	Project Director
PDA	Provincial Department of Agriculture
PDC	Provincial Department of Commerce
PDOWA	Provincial Department for Women's Affairs
PFI	Partner Financial Institution
PIA	Private investment advisor
PIM	Project Implementation Manual
PMO	Project Management Office
PPP (1)	Public Private Partnership
PPP (2)	Purchasing Power Parity
RET	Renewable energy technology
RGC	Royal Government of Cambodia
RIMS	Results and Impact Management System
ROI	Return on Investment
RPRP	Rural poverty reduction project
SAW	Strategy for Agriculture and Water
SM	Social mobilizer
SMM/SMS	Social mobilizer manager / supervisor
SME	Small and Medium Enterprises
SNEC	Supreme National Economic Council
SOE	Statement of Expenditures

SOP	Standard Operating Procedures
SPS	Sanitary and phyto-sanitary
S-RET	Building Adaptive Capacity through the Scaling-up of Renewable Energy Technologies in Rural Cambodia Project
TA	Technical Assistance
TOR	Terms of Reference
TOT	Training of Trainers
TSSD	Tonle Sap Poverty Reduction and Smallholder Development Project
UNCT	United Nations Country Team
US	United States
USAID	United States Agency for International Development
VC	Value chain
VCS	Value chain specialist
WA	Withdrawal application
WB	World Bank

Map of the project area

Executive Summary[1]

1. After 20 years of successful IFAD cooperation with RGC, mostly in community development and basic farming production, AIMS is a new generation of RGC-IFAD project specifically intended to foster new engines of agricultural growth and continue Cambodia's impressive record of poverty reduction and economic growth by helping make Cambodian agriculture bigger and better: bigger in terms of overall agricultural growth, better in terms of higher returns, especially returns on labour, and inclusiveness of this growth. AIMS will take opportunity of Cambodia economic growth and its integration in the ASEAN Economic Community.

Strategic development context and rational

2. By reducing poverty by more than two thirds from 53.0 percent in 2004 to 17.5% in 2012, Cambodia has surpassed all expectations and easily exceeded the MDG poverty target. This dramatic poverty reduction from 2001-2011 was largely driven by agriculture (60%) and most poverty reduction happened in rural areas. Given the continued importance of agriculture in the rural economy, further agricultural growth is likely to be crucial to further widespread poverty reduction and growing prosperity in rural communities.

3. Worryingly, agricultural growth has now stalled. Having delivered average annual growth of +5% in the decade to 2012, agricultural growth has stalled in the last 3 years and was just 0.2 % in 2015.So there is a pressing need to establish new engines for growth on new foundations through intensification, diversification, processing and commercialization if poverty reduction and broad based inclusive economic growth is to continue.

4. Thankfully there are both credible current market opportunities for higher value agricultural growth, serving both domestic and export demand, as well as a number of important building blocks emerging to enable Cambodia farmers and agri-businesses to capitalize on these opportunities: increasingly well connected rural communities (by road and telecoms); rapidly improving rural finance sectors; diversity of promising initiatives in the support markets and business development services for farmers (production, processing, marketing), and; increasing awareness and interest of farmers in market opportunities from farming as a business.

5. Project design is consistent with the strategic objectives of the 2013-2018 COSOP, specifically its first strategic objective of enabling the poor small holders to take advantage of the market opportunities. It is also closely aligned with the Government's policies for rural development including the Rectangular Strategy and the Cambodia Trade Integration Strategy 2014-2018 to address issues at the core of trade sector competitiveness, job and income creation, and sustainable human development within the ASEAN framework.

Project area and target groups

6. The project will have the mandate to operate in all parts of the country, with actual locations determined by the selection of priority value chains and the associated areas engaged in the value chains from production to the market. AIMS will initially work in around 15 provinces based on the 5 flagship commodities selected supported by the same number of multi-stakeholder platforms and 3 inter-regional technical hubs. Service providers will deliver appropriate business development services (technical assistance, training and financial services) , and will further expand in year 2 and 3 into additional value chains.

[1]Mission composition from IFAD side: Under the overall guidance of Benoit Thierry, CPM, Mission Leader, the mission is comprised of Nigel Smith (Mission Team Leader and Value Chain Specialist), Sanjeev Shresta (Market development and management specialist), Ung Dara Rat Moni (Project Management and M&E Specialist), Meng Sakphouseth (IFAD CPO, Economist), Shankar Kutty, (IFAD Procurement Manager), Michael Marx (Financial Services Specialist), Pari Baumann (Inclusion and targeting specialist), Mylene Kherallah (IFAD Lead Technical Specialist - Markets and Value Enterprise), Christa Ketting (IFAD Junior Programme Officer).

7. AIMS' primary target beneficiaries will be smallholder farm households, including poor (ID1 and ID2) and near poor farmers, participating in the supported value chains who voluntarily collaborate in project activities. In addition, secondary target groups are the other primary and secondary actors in the value chain, including, *inter alia*: agricultural cooperatives; farmer organisations, MSMEs; agribusinesses; service enterprises, and; industry associations. The project aims at making agriculture more attractive to the younger generations and for them to benefit from farming and value chain integration as a profitable business.

8. The project Goal is to "Enhance prosperity of Cambodian smallholder farmers through increasingly profitable links to agri-businesses and markets". The Development Objective is "To increase returns from farming for smallholders, including poorer farmers and youth, through efficient public sector investment". There are expected to be 75,000 direct household beneficiaries from the project within increased household assets of at least 25%. The three project Outcomes will be:

- Outcome 1: Profits to farmers and businesses from inclusive value chains increased for multiple higher value products.
- Outcome 2: Private investment increased in priority value chains from smallholders and agri-businesses.
- Outcome 3: Substantially increased capacity of national and sub-national institutions to design and deliver inclusive agriculture market development initiatives.

Approach

9. The AIMS design adopts the following principles as a starting point:

1. Only commercially viable value chains (VCs) and investments should be supported. This is essential for supported VCs to be able to sustain long term competitiveness and self-sufficiency after AIMS without direct or indirect public subsidies.
2. To attract IFAD support, value chains must have credible potential for inclusive growth, with significant numbers of active but initially poorer farmers able to earn their fair share of profits from the growing value chains alongside other farmers and businesses.
3. From the start, AIMS should promote the development of the critical supporting business development services and input markets that are a vital part of sustaining a competitive industry alongside the primary value chain (farmers, SMEs, agricultural cooperatives and farmer organisations[2], national and international agri-businesses firms[3]).
4. AIMS should build capacity (in individuals, institutions, networks, systems) while also delivering project results.
5. AIMS should learn from best practice elsewhere, but not be limited by this, and refine and adapt approaches to work well in the real setting in Cambodia.

Value chains selection

10. The overall assessment is that there are already a number of product VCs, both larger and more niche, serving domestic and export markets, that meet the AIMS project requirements for fully fledged initial support based on the following criteria:

1. clear, current market demand for the specific products
2. interest from traders and agribusinesses to grow their sourcing from local value chains
3. interest from farmers, including smallholders and youth, to invest, expand and improve their production

[2] AIMS should take benefit of the network and activities of the Medium Term Implementation program Phase 2, supporting in Asia Pacific farmers organisations in 3 components : capacity building, policy dialogue and value chain development: http://www.asiapacificfarmersforum.com/

[3] Beyond firms already active in Cambodia, AIMS should facilitate cooperation with networks such as Grow Asia, initiated at Davos forum and grouping all major international firms in agriculture sector who are keen to work on contract farming with smallholders. http://growasia.org/

4. opportunities for competitive, profitable and sustainable smallholder production, processing and proper SMEs/cooperatives already demonstrated in Cambodia at a reasonable scale
5. practical intervention opportunities for AIMS to facilitate the accelerated development of the particular market and local value chains

11. From Year 1, AIMS will therefore initially focus on five "flagship" value chains each corresponding to specific target group and specific operating modalities:

i) quality assured rice; ii) vegetables; iii) backyard chicken; iv) cassava; v) raw silk

12. AIMS will add additional value chains from Year 2 onwards that meet project criteria, as outlined above (fruits plantation and production (longan, mango,…), livestock/beef production, aquaculture, selected spices (pepper, cardamom, non timber forest products, etc.) and subject to the capacity of the project teams to support additional value chains as well as marketing facilities (processing units, markets infrastructures, labelling, fair trade). This may also include initial pilot activities in VCs in which there is considered to be potential but in which specific issues need to be addressed before wider support can be justified.

Components

13. The project will have two components and be implemented over 6 years.

14. **Component 1: Value Chains Development** is the lead component for AIMS and driving force for impact for the entire project. The component will focus on brokering, facilitation, innovations development and capacity building support to inclusive growth initially of five higher value product value chains - covering food and non-food crops and livestock.

15. Value chain brokering and facilitation through cluster approach will form the core of the component approach. A cluster approach will geographically group the key actors along the value chain in the same areas. For the purposes of AIMS, this will typically be defined geographically by zones of production which form discrete buying zones of a number of competing buyers/traders.

16. The 4P models of public-private-producer partnerships (IFAD) will be relevant to the supported contract farming arrangements. The approach will build on existing and emerging production clusters and will: i) follow an iterative brokerage process to facilitate and develop links between buyers, producers and service providers (through "multi-stakeholder platforms" (MSPs) and Contract Farming mechanisms);ii) give priority to innovation in local value chains, especially using the VC Innovation Fund (Comp 2.1), and; iii) actively promote the development of local private sector support service markets.

17. The MSP approach is expected to be the main process used in all the value chains, in bringing together all the actors and stakeholders in the VC for shared understanding and joint actions to address constraints and maximize opportunities in VCs for mutual benefits, market, processing and business linkages (quality control, labelling). In addition, the initial entry points in the quality assured rice and raw silk value chains are expected to include contract farming arrangements between a small number of lead firms and their farmer networks ensuring proper processing/marketing of the products. For project support, priority will be given to investments (large and small) that bring innovation in to the local value chain and that address the jointly identified bottlenecks of the primary VC actors in order to maximize the sustainable impact on smallholders (see Comp 2).

18. For mobilization of farmers and youth into the local VCs, the project will engage teams of market-oriented social mobilizers to work with the Regional Hub offices (see below). These social mobilization teams will also be the mechanism through which business and financial literacy training is provided to almost all participating AIMS farmers, via a cascade system using a system of Business Literacy Facilitators nominated by the members of the producer groups themselves.

19. A Sector Development Facility (SDF) of around USD5 million will be managed directly by the PMO to focus on "public goods" that address specific bottlenecks to the VC development identified by the VC actors themselves through the MSP dialogue processes at the Hub and cluster levels. The SDF will focus on "public good" investments only that cannot reasonably be delivered through private investment in the current context of the specific VC and, most importantly, contribute to overall sector growth. Investments under the SDF will be managed as distinct sub-projects, implemented either directly by the project teams or a suitably qualified contracted organization from either the public or private sector. Selection of the implementing partner for the sub-project will be based on the best qualified to deliver the sub-project objectives and activities. While SDF will focus on "public goods" for the VC, the private actors in the VC will be expected to make a financial contribution of at least 5% to all SDF sub-projects in order to confirm that these are indeed an immediate priority for the value chain actors themselves.

20. **Component 2: Value Chain Financing** has the objective of stimulating increased private investment into the priority value chains by farmers, MSMEs, agricultural co-operatives (ACs), agribusinesses, service providers and others. The priorities for the investment agenda in each VC will be driven by the private VC actors, via the ongoing brokerage and facilitation process organized around the multi stakeholder platforms (MSP) in each value chain (Component 1).The VC Financing component will take a two-pronged approach to stimulating far higher levels of private investment in to the priority VCs:

1. highly targeted direct investment incentives will be offered on a competitive basis to "first mover"[4] and early adopter investors - whether farmers, MSMEs, agribusinesses or others - who are prepared to invest in bringing new innovations into the local value chains to address identified bottlenecks - via new technologies, new business models, new products or new services. The "first mover" investment incentives will be delivered through partial matching grants, expected to average around 20% of total investment costs, and be "priced" to reflect the increased risk to the "first movers" but limited so as not to significantly distort the market. The grants should not seek to replace mainstream debt and equity financing. Once successful "first mover" investments have been made and other actors see they are commercially feasible, the direct investment incentives will be phased out in that particular VC segment.
2. demonstrating to mainstream financial institutions the potential for expanded commercial lending to an increasing range of investment opportunities in agriculture. This will be done through the provision of a line of credit to RGC's Rural Development Bank (RDB) for on-lending to value chain actors in the supported VC.
3. replication and scaling-up of commercially feasible investments in priority VCs, often demonstrated through the "first mover" grants above, will be facilitated by working with leading MFIs and banks to increase their capability to lend profitably to agriculture in general, and the priority AIMS VCs in particular.

21. The emphasis is on providing farmers and agribusiness with better information, knowledge and confidence to make their own investment decisions, whether financed from their own savings, equity or other sources.

22. These elements of the approach will be implemented through two sub-components:

2.1 Value Chain Investment Support

23. AIMS will provide direct financial support to stimulate private investment through two instruments for policy-based financing, expected to be administered by the Rural Development Bank (RDB) or a 3rd party fund administrator. The total value of investment support is expected to be in the order of USD18 million.

[4] "First mover" and early adopter investors are private actors working in the targeted value chain cluster - including producers, traders, agribusinesses, service providers and input providers - who are prepared to invest in bringing new innovations into their local value chains to address identified bottlenecks - via new technologies, new business models, new relationship structures, new products or new services.

24. The total value of support grants and loans available to each VC through the VC Innovation Fund and line of credit should be broadly in proportion to the expected "development outcomes" of the particular value chain (in terms of number of farmers benefiting and amount of increased profit per farmer).Only investments assessed to be commercially feasible would be eligible, including allowing for the theoretical cost of financing the grant element with a bank loan.

a) Value Chain Innovation Fund (VCIF)

25. It is expected that this will be of the order of USD 9 million. The VC Innovation Fund (VCIF) will provide targeted investment incentive grants to "first mover" private investors (farmers, agricultural co-operatives, MSMEs, agribusinesses) along the selected value chains who invest in new production/processing technologies, business models or other services/functions needed in the value chain. The objective is to encourage potential adopters of new technologies or business models with unknown risks and economic benefits to actually adopt these and test their validity; this experience, as properly documented and analysed, will facilitate their wider adoption without government subsidy and help create turnover, income, tax revenues and employment.

26. The VCIF will initially operate three Windows, each targeting a particular scale of investment and linked to the function along the value chain, as summarized below and detailed in the draft VCIF Guidelines attached to the PDR. The call for investment proposals under all three Windows will be driven by the priorities determined by the VC actors themselves through the MSP dialogue processes in the relevant VC and cluster. Grants are expected to represent around 20% of total investment on average with balance contributed by the private investor from either their own capital or with own capital and loan finance. The percentage of grant offered and other terms will be actively monitored and revised if necessary based on actual uptake.

b) Line of Credit to RDB/MFIs

27. The objectives of the line of credit are to provide RDB or qualified private bank with liquidity for lending along the value chains supported under the project, and to refinance up to 80% of the loans granted by PFIs under the VCIF to permit PFIs in respect to asset-liability matching in the case of term loans with a duration of more than 2 years. It is expected that this will be of the order of USD 9 million provided for on-lending. As with the matching grant investment incentives, loans provided through this credit line will be targeted towards investments that address specific bottlenecks in the VC identified via the MSP but for which banks and MFIs are not yet ready or willing to provide commercial credit.

28. Typical investments expected to be partially financed by the line of credit include:

- more complex innovative business models in the value chains, for example joint venture partnerships between lead firms and farmer groups; fair trade, labelling (OTOP,OVOP), ASEAN
- businesses investing in innovative technologies not previous seen in the country, e.g. mobile cyclone grain dryers; small and medium size processing units (juices, retailer shops) or
- longer term smallholder investments at the farm level for which MFI do not have matching sources of term finance.

2.2 Financial service provider partnerships.

29. Accelerated private investment in higher value agriculture can only happen on a large scale with significantly increased financing from mainstream banks and MFIs to farmers, ACs, MSMEs, agribusinesses and service enterprises. AIMS will initially start partnering with the three mainstream MFIs who have substantial existing portfolios in agriculture as well as having taken specific steps to strengthen their internal capacity to lend to agriculture, for example in having dedicated agriculture finance officers.

30. These three MFIs will require some additional technical assistance during the second half of the project. Similarly, RDB is expected to require targeted technical assistance in strategy development

and capacity development from the start of the project. In addition, where AIMS is seeking to promote investments requiring longer term investments, then the partner MFIs may borrow from RDB for term loans for specific purposes which exceed their asset-liability matching capacity. The partnerships will be based on genuine common interest and will include:

- participation of local lending officers and MFI staff in the MSPs organized by AIMS to better understand the financing opportunities and demand of actors in the supported VCs and to meet farmers and businesses wanting to make complimentary investments,
- in-depth information sharing from AIMS supported investments by farmers, business and other on the actual cash flow and financial performance of these investments in order to increase the MFIs' understanding of the financial risks and returns and the suitability of similar copycat investments for mainstream for loan financing.

Implementation framework

31. **Steering Committee**. AIMS will be overseen by a Steering Committee (SC). The Ministry of Economy and Finance (MEF) will co- chair the SC as the official Representative of the Kingdom of Cambodia as the Borrower. The Ministry of Commerce will co-chair the AIMS SC and members will include representatives of:

- Government: MEF (Co-Chair), MOC (Co-chair), MAFF, MIH, MOE, MOWA (6 members)
- Representatives of AIMS partner institutions:
    - Provincial Chambers of Commerce from Regional Hubs (3 members)
    - Partner financial institutions (3 MFIs plus RDB), (4 members)
    - National network of Farmer Organizations, (3 members)
- Technical Working Group on Agriculture and Water - Development Partner Lead Facilitator (1 member)

32. Representatives of other major related projects and donors in agriculture value chains will be invited to attend Steering Committee meetings as observers. Currently this would include: BFP, ASPIRE, S-RET, CAVAC, Harvest II,AFD, USAID, EU, ADB, OVOP.

33. **Overall Project Management**. Project implementation will be primarily on a decentralized basis with "light" central project management for the overall project and for each Component under MOC and MEF supporting and coordinating the major activity in the field through three Regional Hub Offices and via the contracted fund administrator for the VCIF and the Line of Credit via RDB..

34. A Lead Project Agency (LPA) will be assigned on behalf of the Steering Committee to take overall responsibility for project implementation under the leadership of the AIMS Project Director (PD).

35. **MOC** is expected to be the LPA for AIMS and also lead Component 1 on the basis that it is in charge of business development and agriculture marketing in the RGC framework and in view of AIMS' majority focus on market-linkages, facilitating investment along the value chains and on domestic and export trade and in recognition of AIMS' mandate in achieving a genuine multi-stakeholder approach with active participation of government agencies at national and sub-national levels, agri-businesses and farmers. MOC will host an AIMS Project Management Office (PMO) which will include the Component 1 management team led by the AIMS Project Director, expected to be at the Director General level within MOC. The AIMS PMO will also be responsible for overall AIMS financial management, reporting and project administration activities and will be embedded in the Directorate General for Domestic Trade (DGDT), MOC. As part of the PMO, MOC's Department for International Cooperation (DICO) will provide project administration services - financial management, procurement, M&E, communication and reporting. To strengthen alignment and institutional sustainability, these services will be delivered through DICO's own operational unit.

36. **MEF** will be the Implementing Agency (IA) for Component 2. Within MEF, a Project Implementation Unit (MEF - PIU) will be established within the General Department of International

Cooperation and Debt Management (GDICDM) as the Management Team of Component 2. The composition will be in line with the provision of the Standard Operating Procedures (SOP) adopted by RGC for the administration of the externally funded projects. MEF through the PIU will (i) be responsible for the implementation of activities under Component 2 and (ii) supervise the performance of the appointed VCIF Fund Administrator and RDB or qualified private bank in relation with the line of credit. Administration of the Line of Credit under RDB or a qualified private bank and the VCIF will be done strictly in accordance with the relevant guidelines for the VCIF and Line of Credit that will be finalized as part of the PIM.

37. MEF is also the official Representative of the Kingdom of Cambodia as the Borrower. In this role, and as Chair of the AIMS SC, MEF will be responsible for: (i) Providing inter-agency coordination when required; (ii) Fulfilling the government fiduciary oversight and management responsibilities; (iii) Providing sufficient counterpart contribution in a timely manner to finance the Project activities, including payment of government staff salaries; (iv) Timely processing WAs, approval of procurement actions and other necessary documents according to the SOP.

38. **AIMS Implementing Partners** are a central part of the project implementation approach to bring in specialist expertise as well as legitimate representation of key stakeholders into the project. Implementing partners (IPs), in addition to government agencies, will include:

- the national network of Farmer Organizations,
- Provincial Chambers of Commerce (PCC) in the three provinces hosting the hub offices,
- social mobilization (SM) service provider organizations, three in total with one working as an integrated part of each hub team,
- partner financial institutions (PFIs), initially three MFIs (Prasac, AMRET, LOLC) plus RDB .

39. The Implementing Partners relationships and agreements will be managed by the management office for the most relevant components even though the IPs will have broader roles in the project, including in the Steering Committee (except the SM service providers) and Hub/Central Investment Committees. Consequently: the PMO will manage the agreements and coordinate the relationships with the Farmers Organizations, Chambers of Commerce and SM service providers while the AIMS PMO, specifically the Financial Relationship Manage, will manage the relationships and agreements with the PFIs.

40. **Component 1 management**: MOC will lead Component 1 and the bulk of field activities in the project are expected to be in Component 1. The AIMS PD will lead the overall component delivery, supported by a team of three Assistant Directors - one focusing on all technical and project management issues and two to focus on the delivery and performance of the three Regional Hub offices.

41. **Regional Technical Hub Offices** (initially 3 offices) under Component 1 will coordinate field activities in the selected value chains. These will be hosted in the Provincial Department of Commerce (PDC) with staff from PDC, Provincial Chambers of Commerce, Farmers Organizations, Social Mobilization service providers and contract technical advisors on value chain development.The willingness and suitability of Provincial Chambers of Commerce and the national network of Farmer Organization to participate as implementing partners in the project has been confirmed, including assigning staff to work as part of the Regional Hub teams with associated costs covered by the project which will enhance the efficiency of the hubs and their insertion in marketing mechanisms.

42. **Component 2 management:** MEF will lead the implementation of Component 2 and will ensure that the component serves the financing needs of the VC actors participating in activities under Component 1. MEF will supervise the performance of RDB or qualified private bank in relation to the credit line and the appointed fund administrator for the VC Innovation Fund. The Component 2 management team will comprise: a Financial Relationship Manager (FRM), who will coordinate activities under Component 2 assisted by a recruited National VC finance Specialist; a Financial

Investment Analyst (FIA) assisted by a recruited National Financial Investment Specialist who will analyse and document the financial and commercial performance of the different investments supported under AIMS, and; six Private Investment Advisors (PIA), assigned two to each hub. The PIAs in each hub will have the primary responsibility for managing the grant application process under the VCIF.

43. **Harmonization:** There are many ongoing and planned investment projects in agriculture. As such it is important that AIMS is able to work effectively alongside these to make complementary investments. In general terms, the multi-stakeholder platform process that will be implemented by AIMS in each VC cluster to facilitate stronger linkages between actors, will provide a practical forum at the sub-national level for all stakeholders to participate and harmonize support to the local VCs, including other development projects. Specifically, there is expected to be good harmonization with other major projects including:

- ASPIRE (MAFF) which will strengthen public and private extensions services that can serve the demand of AIMS supported farmers as well as decentralizing investment budgets under the Programme Base Budgeting - enabling PDAs to better respond to local priorities identified through the MSPs. PDA's are expected to fully participate in the MSPs as well as be members of the Hub Investment Committee for grant investments under Component 2. and;
- Boosting Food Production Project (MAFF GDA) which will complement each other in the rice sector (working in different parts of the rice value chain) and through joint MSPs in vegetable clusters in common project provinces.
- Support to the Commercialization of Cambodian Rice Project (SCCRP - AFD financed) has made strong progress in linking progressive exporters to rice farmers, especially in Preah Vihear and Kratie, including working with farmer Agricultural Co-operative originally formed under the previous IFAD RULIP project. AIMS is expected to continue this work, with rice clusters in Preah Vihear and elsewhere. The flexibility of the VCIF and SDF under AIMS is expected by the managers of SCCRP and the AIMS design team to enable the two projects to work in close complement to each other, with joint cluster support and complimentary investments. For example, AIMS will have the flexibility to support increased investment in mechanisation service business which is a key priority these rice cluster and for which SCCRP has not had the resources to directly address. There is similar complementarity in regards to RDB strengthening, which SCCRP has initiated and AIMS expects to build on and continue under Component 2.
- HARVEST2 and related initiatives of USAID will also working in commercial horticulture sector with smallholders in 4 provinces. AIMS will be able to closely coordinate with the HARVEST2 teams, both through the MSP and also at the management level. There is confirmed interest from both sides to deepen coordination, for example in harmonizing approaches to investment grant mechanisms, coordination around vegetable cluster MSPs and related activities in common provinces and sharing of experience on aspects such as market information systems.
- AIMS will also build on the progress of the AFD-supported projects in the rice sector and the planned VC infrastructure investments in the forthcoming ADB VC project which will also support some AIMS targeted VC and provinces.

Monitoring and evaluation

44. A key focus for the M&E will be to build a highly effective management information system (online and offline, internet and mobile devices) that provides project managers and VC teams with timely and reliable information on developments in each of the priority value chains so that the intervention plans can be managed for impacts and open to other sources of information and value chains networks in neighbouring provinces and countries.

45. The M&E and management information systems should be primarily based on FAD standard monitoring system and on the principles of the Donor Committee for Enterprise Development (DCED)

Standard for measuring and reporting results, which represents current best practice, and should also incorporate the key indicators and instruments required by RIMS into a single M&E system (as has already been proven by other IFAD supported inclusive market projects in the region). AIMS will follow a system of "rolling baselines" in which baseline data on each cluster is collected at the time that interventions begin in the particular value chain in each cluster area.

Learning, knowledge management and communication

46. AIMS is a new generation of IFAD-supported project dealing with inclusive market development in Cambodia. It is therefore explicitly intended to generate practical knowledge of what works (and what doesn't work), how to apply the successful approaches and to improve the capacity of various stakeholders. Effective and efficient learning, knowledge management and communication are therefore central to AIMS longer term objectives. AIMS will invest in good quality, evidence-based knowledge management in order to contribute to policy development processes and wider scaling-up through proper communities of practices, social networks and online systems (see padee.org and Aspire examples) and using IFAD networks (ifad.org and asia.ifad.org).

Sustainability

47. Financial sustainability is at the core of the AIMS approach. If implemented as envisaged, AIMS should lead to a range and depth of different farmer groups, agri-businesses and other enterprises operating successfully in each value chain and able to meet their own requirements for future growth. There should therefore be little requirement for significant ongoing public support. Institutional sustainability for critical value chain facilitation activities is expected to be achieved by building strong and mutually beneficial relationships between farmers, private businesses and government - especially via the multi-stakeholder platforms.

Financial management and procurement

48. The project's financial management and procurement will be in line with the Standard Operating Procedures (SOPs) for externally funded Projects (used by all donor funded programmes in Cambodia) to ensure that: funds are used for intended purposes in an efficient manner; disbursement of project funds facilitates rapid implementation of activities; funds are well managed and flow smoothly; accurate financial reports are issued timely; a robust flow of reliable information on project activities facilitates accountability; and project assets and resources are safeguarded. The Project Implementing Agencies will be authorised to manage all project-related bank accounts including those utilised for Government funding. An internal control framework will be established consisting of internal audits, independent external audits, and social safeguards. A good governance framework will be introduced to establish accountability and transparency, in line with international and IFAD standards. The project will support the strengthening of national financial management and procurement capacity.

Costs and Financing

49. Total project costs including price and physical contingencies, duties and taxes are estimated at USD 61.6 million over the six-year Project implementation period as shown in Table 1. Investment costs account for 90.7% of the base costs (and recurrent costs for the remaining 9.3%). Funds allocated to project management and coordination amount to about USD 1.1 million or 1.8% of the total costs.

Table 1: Project Costs Summary by Year and by Component (million USD)

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Project Components by Year -- Totals Including Contingencies
(USD '000)

	Totals Including Contingencies						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**Total**
A. Value Chain Development							
1. Value Chain Facilitation Brokering and Sector Development Facility	1 413	1 993	3 792	4 455	3 645	1 272	16 570
2. Market-oriented social mobilizers	305	725	1 145	1 155	612	566	4 507
Subtotal	1 718	2 718	4 937	5 610	4 257	1 837	21 077
B. Value Chain Financing	2 071	7 370	11 123	9 404	7 650	133	37 751
C. Project Management (PMU)							
1. Know ledge Management, Planning and M&E	288	326	334	196	178	375	1 697
2. Project coordination	263	178	169	174	138	165	1 088
Subtotal	552	504	503	369	316	541	2 785
Total PROJECT COSTS	4 341	10 592	16 563	15 384	12 223	2 510	61 613

50. AIMS is to be financed by the RGC, IFAD-loan and private sector (including beneficiaries and private businesses). IFAD will finance 58.8% (USD 36.3 million) of the project costs as a loan to the RGC. The government will finance USD 8.7 million, representing 14% of total costs.

51. Project beneficiaries are expected to contribute at least USD 8.1 million (13.2%) and private businesses are expected to contribute at least USD 8.6 million (13.9%).

Logical Framework

Results Hierarchy	Indicators[5]					Means of Verification			Assumptions
	Name	Base-line	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
***Goal*:**: Enhance prosperity of Cambodian smallholder farmers through increasingly profitable links to agri-businesses and markets	1. 80% of total of 75,000 direct beneficiaries increased real net farming income by >30% (Unit = No. of households)	0	0	20,000	60,000	RIMS+ Survey	Baseline Mid term End line	PMO	Assumes continued social, political and economic stability in the country and neighbouring ASEAN region.
Development Objective: To increase returns from agriculture value chains for smallholders, including poorer farmers and youth, through efficient public sector investment						RIMS+ Survey	Baseline Mid term End line	PMO	80% (60,000 smallholders) of direct beneficiaries including poor and near poor[6], in priority value chains will increase their real net farming income through project interventions
	2. Number of beneficiaries' increased return on labour in farming by 50% (Unit = No. of households)	0	0	13,500	40,000	Annual VC Tracking Survey	Annual		
	3. Public return on investment (ROI) (Unit = Percentage)	0	-	-	20%	PCR	End of project	PMO	
Outcome 1: Profits to farmers and businesses from Inclusive value chains increased for multiple higher value products.	4. Aggregate value of products sold in target locations in AIMS priority value chains in real terms[7] (Unit = Percentage increase)	0	0	10%	30%	Annual VC Tracking Survey	Annual	PMO	There are no prolonged collapses in export/local demand or prices for agricultural products.
	5. Adoption rate of production and postharvest technologies[8] of participating farmers (Unit = Percentage)	0	0	40%	60%	RIMS+ Survey; Annual VC Tracking	Base/Mid/ End line; Annual	PMO	For AIMS value chains substantial improvements in production and post-harvest are necessary and feasible as foundations of growth.

[5] Data for all household related indicators to be disaggregated by poverty status, ethnicity and gender of household head.
[6] "near poor" defined as living on <USD3.10 (2011 PPP) per capita per day
[7] calculation of "real terms" should include correction for changes in wider reference market prices for the particular product so that any gain/loss from general market price fluctuations are discounted.
[8] "Adoption Rate" in the production/post-harvest practices to be defined for each target product by the M&E team with technology experts at the start of the project. At the farm level, this is typically expected to include farmers adopting at least 2/3 of the components of an improved technology package for production a specific crop/livestock. Each of the technology components will be clearly defined and objectively verifiable, similar to what is already practiced in PADEE and ASPIRE projects

Results Hierarchy	Indicators[5]					Means of Verification			Assumptions
	Name	Base-line	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome 2: Private investment increased in priority value chains from smallholders and agri-businesses	6. Agri-business investment in priority value chains and production clusters (Unit = Percentage increase)	0	0	10%	30%	Annual VC Tracking Survey	Annual	PMO	Sufficient numbers of banks and MFIs continue to show commercial interest and commitment to expanding agricultural lending portfolio to smallholder and agribusiness sectors.
	7. Smallholder investment in priority value chains and production clusters (Unit = Percentage increase)	0	0	10%	30%				
	8. Participating smallholder farmers with increased financial literacy (FL) levels (Unit = percentage)	0	0	50%	50%	Pre-/post FL training assessment	Annual	PMO	Participating smallholders have sufficient interest to improve their financial literacy.
	9. Partner Financial Institutions (PFIs) continue financing VCs after end of project (Unit = FIs)	0	1	4	5	Project reports	Annually	PMO	Positive framework conditions for investment into agriculture
Outcome 3:. Substantially increased capacity of national and sub-national institutions to design and deliver inclusive agriculture market development initiatives	10. MSPs that are active, well attended and positively regarded by participants of target VC cluster locations (Unit = percentage)	0	0	90%	90%	Project reports; MSP Participant surveys	Annual Annual	PMO PMO	External socio-political factors do not disrupt MSPs. Sufficient interest from Private sector in MSPs across all priority VCs of AIMS.
Outputs:	11. Farmers receive training or advice on improved technologies for production or post-harvest practices (Unit = people)	0	1000	45,000	60,000	Project reports;	Annual	PMO	Assumes 80% of total direct project beneficiaries.
	12. Farmers receiving financial and business literacy training (Unit = people)	0	0	35,000	50,000	Project reports;	Annual	PMO	Assumes 66% of total direct project beneficiaries.
	13. PPPs or similar partnerships with large and small agri-businesses and service enterprises (Unit = No. of partner and/or supported agri-businesses)	0	0	100	250	Project reports	Annual	PMO	Sufficient interest and involvement of Private Sector in partnering government

I. Strategic context and rationale

A. Country and rural development context

Development and poverty context

1. Cambodia has made dramatic progress in reducing poverty over the last decade. By reducing poverty by more than two thirds from 53.0 percent in 2004 to 17.5% in 2012, Cambodia has surpassed all expectations and easily exceeded the MDG poverty target. More than 4.3 million people left poverty during this period, mostly in rural areas, with the number of poor dropping from almost 7 million in 2004 to almost 2.5 million in 2012. (World Bank, 2015)

2. Agriculture growth was both vibrant and pro-poor so was the key driver of the dramatic reduction in poverty during this period. More than 60 percent of the poverty reduction was attributed to the agriculture sector: higher rice prices stimulated the larger rice production that helped increase farm wages (World Bank, 2013).

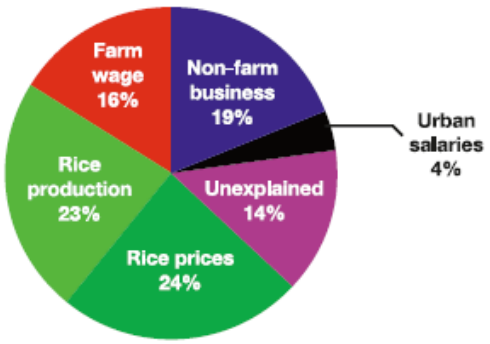


Figure 1: Drivers of poverty reduction, Cambodia, 2004-2011 (WB)

3. Between 2004 and 2012, the annual growth in agricultural gross production was 8.7 percent. Agricultural value added grew by 5.3 percent during this period. This exceptional growth, among the highest in the world, was driven by crop production, mainly of paddy rice (annual growth of 9 percent), but also maize (20 percent), cassava (51 percent), sugarcane (22 percent), and vegetables (10 percent). The growth in livestock and fisheries was modest. (World Bank, 2015)

4. Yet recent gains in poverty reduction are highly vulnerable, as are the majority of those lifted out of poverty, who remain near-poor. These people are extremely vulnerable to slipping back into poverty at the slightest shock. Indeed, almost all of the gains of the last decade could be reversed by an average loss of KHR 1,200/day (US$0.30) - about the price of two small bottles of water - which would return 3 million near-poor into poverty and return Cambodia's poverty rate to 40 percent (based on 2011 poverty data). (World Bank, 2013).

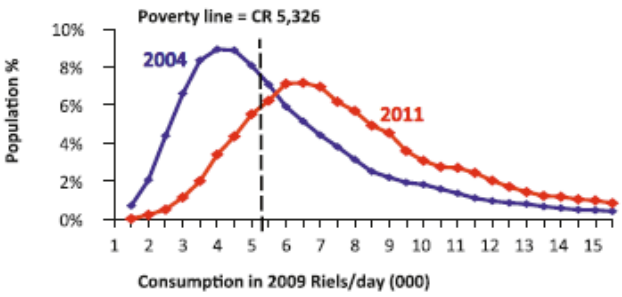


Figure 2: Population share by consumption, Cambodia (WB)

5. Further poverty reduction will depend heavily on the success of agriculture for many years to come, due to its large role in the labour force, value added and exports, as well as the fact that many farmers are among the poor and vulnerable. Yet the factors that drove this growth, especially higher rice prices and expansion of production area, are unlikely to be able to drive substantial further growth. So continued poverty and rural economic growth will rely on finding new engines to make Cambodia's agriculture bigger and better: bigger in terms of overall agricultural growth; better in terms of higher returns, especially returns on labour, and inclusiveness of this growth.

A shift in agriculture is needed to revive growth

6. While agricultural growth in the decade to 2012 was high and sustained, growth has stalled in the last 3 years and was just 0.2% in 2015. It is not clear if this is a temporary drop or the start of a shift to a period of slower growth. Given the importance of rice prices and increasing production land in previous growth, these sources of growth may have be at their limit. And in the case of rice prices, the re-entry of Thailand, the new arrival of Myanmar and the increasing Vietnamese production of fragrant rice, are likely to put sustained downward pressure on prices for the coming years.

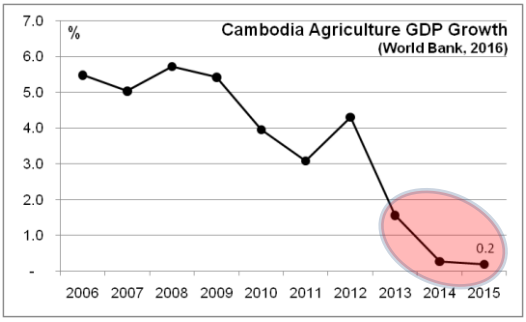


Figure 3: Cambodia Agricultural GDP

7. Cambodia's agriculture and, in turn, its poverty reduction ambitions therefore needs to find new engines for growth in addition to rice. Thankfully, Cambodia's strategic location in the heart of mainland South East Asia creates significant market opportunities for smallholder producers to serve domestic, ASEAN, Chinese as well as wider export demand. Not only do the growing economies in the large urban centres of central Thailand, southern Vietnam and within Cambodia create strong demand in their own right, but the neighbouring countries are established agricultural export hubs linked to global supply chains, facilitating further opportunities for Cambodia producers and agri-business to link to these established global supply chains. Cambodia is also in the process of upgrading its own export logistics capacity and infrastructure.

8. An initial list of candidate market opportunities investigated during design included:

- Vegetables
- Chicken
- Premium rice
- Cassava
- Silk
- Longan
- Mango
- Oranges
- Spices/Pepper
- Beef / Cattle
- Cashew
- NTFPs

Better and better connected

9. **Phone ownership is now widespread in rural areas** and still growing, even among poorer households. A recent survey found >92% of Cambodia adults aged 15-65 yrs in rural areas claimed to own a phone, of which around half were phones capable of sending/receiving Khmer script.(Kimchhoy, et al., 2013). This is a dramatic change in the last decade, for example in IFAD's former project in Svey Rieng and Prey Veng (RPRP), in 2006 project households had just 6% phone ownership and there was no support for Khmer script on any mobile phone.

10. **Roads to market are improving fast**. Roads networks connecting rural areas to market hubs have improved dramatically in recent years and further improvements can be expected both within Cambodia and in the major connecting roads to neighbouring countries, not least through the Great Mekong Sub-region corridor development initiatives in the ASEAN/AEC framework. For example, it is now half a day's drive from Phnom Penh to Ho Chi Minh City, and less than three hours (120km) from border provinces such as Svey Rieng.

Figure 4: GMS Road corridors

11. Within Cambodia, once-remote provinces such as Preah Vihear and Rattanakiri can now be comfortably reached by road in half a day from the main market hub around Phnom Penh and

some are equally well connected to cities in neighbouring countries. Similarly, journeys across the north of the country, for example from Preah Vihear to Rattanakiri can now be completed in half a day where as they would routinely take more than 12 hours just five years ago. These developments have happened very recently – with many major sections of the new road opened only in the last five years. These shortened journey times, less bumpy roads and resulting lower costs have, in a very real sense, increased the connectedness to the market, with traders and buyers now able to access areas which were previously not economical to trade with.

12. **Rural areas across the country are better physically connected to large and growing regional markets** in central Thailand and southern Vietnam thanks to ASEAN Economic Community. The improved internal transport links and better connectedness to key market hubs in neighbouring countries is also further extending the area of influence of traders and buyers from neighbouring countries deeper within Cambodia. This can already be seen, for example, in the spread of production of products such as cassava further into the country and not just confined to border locations as before. This will continue to create opportunities and threats to Cambodian farmers as Thailand and Vietnam are both major markets as well as sources of competition. Intense competition from cross-border imports, such as vegetables and pigs, has been a reality for some time. But despite this competition, there is a strong argument that there will be a large net benefit to Cambodia farmers from being better connected to the major market hub of southern Vietnam and central Thailand. The southern regions of Vietnam have a population of 36.4 million people in and around the Ho Chi Minh City, the Mekong Delta and Central Highland regions with average income per capita equivalent to over USD1062 per year which has grown in real terms by an average of 6.5% per year since 2002 (Vietnam Statistical Handbook, 2011). Bangkok and the central region of Thailand have a population of over 21 million that has a Gross National Income per capital equivalent of USD5658. (Thailand Households Social Economic Survey Tabulated Tables, 2007)(Data Bank (online), 2012). This compares to Cambodia's population of 15.1 million (2015) with a GNI per capita equivalent to USD830 in 2011(Data Bank (online), 2012).

13. **Electricity connections lag far behind** road and phone connections at a level of 30% coverage due to its handover to private sector some decade ago. Cambodia’s electricity tariffs are still among the highest in ASEAN. In rural areas, electricity costs are even higher due to factors such as limited capacity of electricity suppliers, a lack of economies of scale, fuel transportation costs and high risk premium for rural consumers. High energy costs is one of the key obstacles to achieving the Royal Government of Cambodia's (RGC) target for increased in-country processing of agricultural commodities and wider mechanisation in the agricultural sector. RGC has now establish a national grid and aim at increasing electrification to 100% in the coming years.

Business in Cambodia

14. One of the key findings of the recent Cambodia Investment Climate Assessment (ICA) is that there is a “missing middle” in the composition of Cambodian companies, especially those involved in exports, compared with countries at the same level of Gross Domestic Product (GDP). The existence of a missing middle is likely to be associated with a costly business environment that favours large businesses and encourages small firms to remain small and informal in order to remain hidden from the regulatory environment.(World Bank, 2014)

15. The Investment Climate Assessment identified 6 factors that were reported as "major or severe" constraints by at least 20% of all firms in Cambodia (registered and unregistered):(World Bank, 2014).

Table 2: Major constraints for firms, Cambodia 2014 (WB)

Factor (in order of severity)	**Severity** (% of all firms reporting as "major or severe constraint")
1. Electricity 2. Macro-economic uncertainty	>40% of firms
3. Corruption	>30% of firms
4. Transportation 5. Anti-competitive informal practices 6. Cost of financing	>20% of firms

16. The World Bank's recent study on SME agribusiness finance highlighted that "constraints related to the institutional underpinnings of the business environment are viewed as either major or severe. Anticompetitive environment, regulatory issues and corrupt practices are placed far ahead of important business needs such as access to finance, access to land, and skills. These perceptions are fairly robust across all types of businesses (for example, formal, informal, small, micro, etc.) and all sectors including agricultural processing." (Eliste, 2013)

17. The level of informality in Cambodia's businesses is still high. Informal firms are perceived to have a price advantage over formal firms and face fewer regulatory obstacles in conducting their activities. This competitive edge appears to prevent formal firms from operating on a level playing field. The persistence of these constraints over several ICA surveys indicates that they are deeply embedded in the local business culture. (World Bank, 2014)

18. While the level of informality is widely accepted to be a response to the level of anti-competitive practice, informal payments and corruption, informality also has costs, most notably in increased difficulty in accessing finance as well as meeting other commercial requirements for serving more formalized markets and customers, such as export customers.

19. This profile of a "missing middle" and high degree of informality among smaller enterprises is equally true for the agricultural sector, and so the AIMS project will need to have mechanisms that will allow it to work with both the relatively few medium and large agri-businesses that are active in the priority value chains as well as having other mechanisms to engage with smaller and less formal enterprises including cooperatives and farmer organisations that are the large majority in the agri-sector in Cambodia.

Access to finance in agriculture

20. There is a mixed situation in terms of access to and use of financial services for those engaged in agricultural value chains. Smallholders are increasingly well served in terms of simple consumer loans, thanks to the MFI revolution in Cambodia over the last decade. Similarly, the relatively small number of larger, formal businesses working in the sector also appears to have relatively good access to finance, especially in the context of the relatively high liquidity in the banking sector in recent years. In contrast to the relatively good and improving situation for smallholders and larger firms, the large number of small, less formal enterprises in agriculture appear to have much more limited access to finance and mainstream SME financial services. The fear of being indebted and the perceived high interest rates also play a role here. So, as with the business context itself, there is also a "missing middle" in agriculture finance.

21. The overall enabling environment for the financial sector continues to improve as well. One important aspect has been that since 2012, the Credit Bureau Cambodia (CBC) has begun operating to improve access to credit information. The CBC aims to promote financial stability in Cambodia by providing data to help with controlling credit risk, preventing fraud and improving the financial prospects of its clients. CBC is a joint venture between the Association of Banks Cambodia (with a stake of 30 percent), the Cambodia Microfinance Association (10 percent)

and Veda Advantage Cambodia Holding Pte. Limited (49 percent). Within its first three years of operation, it had more than 3 million consumers on file and more than 9 million credit enquiries processed in total. CBC is now processing enquiries at a rate of more than 3 million per year from 112 clients, including banks, microfinance institutions, leasing companies and rural credit operators. CBC is now planning to extend its services into the commercial lending sector and plans to launch the country's first centralised commercial credit reporting service in 2017.

Smallholder finance

22. There is now widespread access to general financial services throughout the country, especially basic savings and credit, and it is still growing fast. The improvements in rural access to finance over the last decade have been as impressive as the improvements in communications. In a country with around three million households, of which around 2 million are in rural areas, there are now approximately 2.3 million active borrowers with USD5 billion of loans and 2.8 million savers served (Dec 2015) by registered MFIs plus ACLEDA (a former MFI, now a commercial bank) covering all provinces(Microfinance Information Exchange, 2015).

23. There is also substantial depth to the market - with 9 financial services providers (FSPs) having at least 90,000 borrowers and the largest (ACLEDA) serving 17.5% of all borrowers. The savings market is more concentrated, but still with six FSPs with at least 120,000 depositors each, although the market leader (ACLEDA) has around 57% share in terms of depositors and is almost four times the size of its nearest rival (Prasac with 15% share).(Microfinance Information Exchange, 2015)

24. Growth in the consumer finance sector remains very strong and shows no signs of slowing. Over the last five years, the number of savers has increased at a sustained rate of >25% per year and the number of borrowers at >12% per year (mixmarket.org). The lending market is being driven by a broad group of FSPs while the savings market growth is largely being driven by the market leader, ACLEDA.(Microfinance Information Exchange, 2015)

25. A new wave of growth looks imminent - in terms of overall market size, depth of financial inclusion as well as the range of financial products and services being offered. Digital financial services, branchless banking, e-money based services (and similar) are at the heart of this new wave of growth and are expected to lead to lower transaction costs and greater financial inclusion in rural areas. Leading banks and MFIs are already active in this area: ACLEDA with its service called UNITY; AMK that claims to have agents in every village; and AMRET that is actively investigating new products. The digital opportunity has also attracted new entrants into the mobile finance segment - currently led by the mobile payment service of WING with more than 1.5 million users (67% rural and 37% women), 3600 agents and around USD4.5 billion in transaction volume in 2014. In early 2015, WING[9] also obtained a specialized banking license from NBC and is expanding its range of financial products offered.

26. Within the MFI sector, three MFIs standout as especially positioning themselves to expand their agriculture lending (LOLC, AMRET and Prasac) and have already taken steps to build their own capacity to better support agriculture investments, for example by establishing dedicated agricultural credit officers or credit units and launching specific products for agricultural finance. Each of these MFIs sees the agriculture sector as a strategic priority for their business and already have significant share of lending to the sectors, in some cases representing over 50% of their loan portfolio. Together, these three MFIs serve about 900,000 clients through 393 branches with an active total loan portfolio of USD 1.6 billion, of which USD 642 million (40%) in the agriculture sector.

27. While there is already lots of activity in both the conventional and digital consumer finance arena, there appear to be important opportunities to improve the range of specific financial services and products offered to smallholder farmers to meet their farming and non-farming

[9] see http://www.cgap.org/blog/wing-pushes-digital-finance-frontiers-further-cambodia

financial needs through both digital and conventional channels. For example, most MFIs currently do not yet offer seasonal agricultural finance products with balloon repayments of capital or linked to the cropping cycle. Nor does there yet appear to be a deep expertise in agricultural lending within many of the leading MFIs to match their commercial ambitions in the sector. It is notable that the Consultative Group to Assist the Poor (CGAP) has recently initiated work in this field in Cambodia with AMRET - one of the leading MFIs (Mattern, et al., 2015). This shortage of smallholder agri-finance products, and supporting credit systems within the MFIs, means that smallholder use of credit to invest in upgrading their farming is still well below its potential and there are likely to be opportunities for AIMS to partner with selected MFIs and banks to accelerate their expansion in the smallholder agri-finance market.

Agri-business finance

28. The commercial bank sector is dominated by four commercial banks–ACLEDA (formerly an MFI), Canadia, ANZ Royal and Cambodia Public Bank – which control half of all banking assets, about two-thirds of all deposits and loans, and 75 percent of the branch network. In total, there are 35 local and foreign-owned commercial banks and 12 specialised banks with total assets of USD16.5 billion. The sector includes leading local and international banks and so there is substantial expertise in the commercial banking sector for lending to agriculture, where they choose to do so.

29. At the aggregate level, the lending to agri-businesses has expanded significantly in the last 5 years. Overall commercial bank lending to agriculture increased from USD 400 million in 2010 to USD 970 million in 2014.

30. However, the picture is very uneven. The main beneficiary of this lending expansion was the rice sector, and lending to businesses in other agro-industries remained relatively limited. Consistent policy and government support delivered through its rice export strategy encouraged this lending expansion and investment in rice milling. As a result, milling capacity increased more than seven fold from 2009 to 2013, and similarly, milled rice exports increased from an annual average of about 6,000 tons before 2008, to 51,000 tons in 2010 and reached 538,000 tons in 2015 (an increase of 39 percent on 2014). With relatively few bankable clients in the agribusiness sector, these formal and larger rice milling firms suited the banks' lending profile and their appetite to expand agricultural lending to balance their overall lending portfolios. However, it is also noted that many of the leading rice millers have subsequently run into financial difficulties, especially related to working capital shortages, with some now effectively bankrupt and ceased trading or dramatically reduced their trading activities (Phnom Penh Post, 14 Sep 2016). Milled rice exports in the year to July were 6% lower in 2016 than the same period in 2015 (crf.org.kh).

31. In contrast, lending to small enterprises in non-rice parts of the agriculture sector, has been constrained by the high degree of informality with many micro-, small and medium enterprises (MSMEs) unable to meet the prudent or collateral requirements of the banks and unable to show clear financial records, business plans or ownership documents among other things.

32. The Rural Development Bank of Cambodia was established in 1998 by the RGC as an autonomous public enterprise authorized to undertake all banking operations and loan services to support agriculture, SMEs and MFIs. Its mission is to enhance the access to finance for all stakeholders in agricultural value chains. Through its single office in Phnom Penh, the bank provides investment and working capital loans for the agricultural sector, with focus on rice as per the prevailing government policies. At present, the RDB is the only bank that lends to agricultural cooperatives (ACs). As at the end of 2015, the bank had total assets worth USD 74.7 million, of which USD 41.9 million were net loans. Relatively low cost of funds (2.1%), provisions for loan losses (0.2%) and operating costs (4.8%) permit the bank to offer lending rates starting at 8.5%. In all four past years, the bank made a nominal profit, totaling USD 5.2 million. The weaknesses of the bank include its status as state-owned bank, with a strong influence of government in operations, and staff capacity. At present, a one year

technical assistance project funded by the AFD is helping the bank to rationalize its lending policies and procedures, to establish an independent risk management unit and improve the human resources development policies.

33. For MSMEs, informality within the agri-business sector is a major constraint to greater access to finance. For many enterprises, the perceived benefits of informality outweigh the benefits of greater formality (such as access to finance). (Eliste, 2013) The drivers of informality are complex but this is a significant issue that must be considered in the design as it is among the most significant barriers to greater investment in agri-business.

34. In contrast to the situation with the MFI sector, given the existing competencies in the commercial bank sectors and the issues of informality in agri-businesses, there is likely to be relatively limited scope for a small project such as AIMS to address these major constraints directly. However, there may be significant scope for indirect impacts through a co-ordinated and integrated approach to the development of the whole supply chain in high potential value chains, which is likely to substantial reduce the perceived commercial risks of agri-business investment and raise profitability thus making agri-businesses in these value chains increasingly attractive as clients. In the short and medium run, this may best be approached through larger and more experienced deposit-taking MFIs, and through the state-owned Rural Development Bank, than through the commercial banks, some of which feel they burnt their fingers in the recent expansion of lending to millers. However, the potential of the agricultural sector cannot be explored by these financial institutions alone, but needs the financial strength of the commercial banking sector.

Support Services to smallholders and agri-businesses

35. There are a wide range of promising initiatives around the country seeking to deliver better, faster and cheaper technical and value added services to farmers and smallholder producers. These range from the public sector, through PPPs, to largely private-sector initiatives;

(a) Public sector - BFP, ASPIRE, EU programme of livestock and fisheries

(b) PPP

  (i) NGOs initiatives, iDE's Farm business advisors network and their "Lhors Thmey" enterprise

  (ii) CAVAC - especially with fertilizer and pesticide suppliers but also seed suppliers for vegetables and has been working with more than a dozen private businesses.

(c) Private sector

  (i) Private animal health worker networks continue to grow and mature

  (ii) A growing number of private service providers, not just input suppliers, offering value added services to farmers e.g. Asea Agri Group (Cambodia) Co. Ltd

  (iii) First moves towards some embedded services, for example from more progressive rice millers investing in agronomy advice to farmers in their supply chains.

B. Rationale

36. Dramatic poverty reduction in Cambodia from 2001-2011 was largely driven by agriculture (60%) and most poverty reduction happened in rural areas. Given the importance of agriculture in the rural economy, continued agricultural growth is crucial to further widespread poverty reduction and growing prosperity in rural communities. Yet, at the same time, many of the 4.3 million people that left poverty are still vulnerable - sitting just above the poverty line. So a small drop in income could throw millions of people back into poverty.

37. Furthermore, if farm incomes are to keep pace with non-farm wages, then returns on labour in agriculture needs to rise dramatically for smallholders and farm workers as well as aggregate agricultural growth. For comparison the minimum wage in the garment sector has risen by 9% for each of the last two years and was just increased to USD153/month (30 Sept 2016). At this rate of increase, minimum wages are likely to be >USD 2,000 p.a. next year and over USD3,000 by the end of the six year AIMS project. For agriculture to continue to prosper it needs to offer comparable returns on labour, for example, (based on 2012 prices (World Bank, 2015)) target returns in the life of AIMS will need to be in the order of:

    (a) return/labour -> target net return of >USD2500/person year - up from $1200 in 2012

    (b) return/ha ->target net return of >USD2500/ha year - up from $1300 in 2012

38. But agriculture growth has stalled. So, if poverty reduction and broad based inclusive growth is to continue there is a need to reboot agricultural growth on new foundations through intensification, diversification and commercialization.

39. Thankfully, there are credible current market opportunities for higher return agricultural growth as well as a number of important building blocks emerging to enable Cambodian farmers and agri-businesses to capitalize on these opportunities - for example: the rapidly improving rural finance sectors; diversity of promising initiatives in the support markets and production services for farmers, and; increasing interest of farmers in market opportunities from farming as a business.

40. But not all the elements are in place and working together: many smallholders still don't access finance from MFIs for investment in their farmers; value chains are highly fragmented leading to high transaction costs; many SMEs are small and informal - limiting their capacity to invest and their knowledge and understanding of new markets beyond their immediate area; larger agri-businesses struggle to aggregate supply from myriad smallholder farmers, and; there are still important gaps in knowledge and practice for competitive on-farm production and post-harvest management that are vital if Cambodian agriculture is to compete both in export markets and against imports from neighbouring countries.

41. The rationale for AIMS is therefore to identify a portfolio of promising growth opportunities and work with those in the value chain to identify and address bottlenecks to unleash faster growth - tackling gaps in their networks, skills and resources to forge a practical pathway to growth.

42. Given the level of dynamism and activity in different elements of the puzzle, AIMS must proactively build on and work with what is already happening in the country - especially in terms of critical support markets such as financial services and agricultural services. At the same time, it must have the resources and mandate to take the lead in addressing critical gaps where these are identified. So AIMS must bring all the pieces together, by focusing its efforts in two areas:

    (a) facilitation of better linkages in the value chains among the various players to leverage what is already happening and make them more coherent and efficient,

    (b) concentration of efforts to address critical bottlenecks and gaps that are identified through the facilitation process but which are not being addressed already.

43. Market opportunities vary from place to place as well as between farmers depending on their production resources (e.g. land, labour, capital). Consequently, AIMS must foster the development of a portfolio of product value chains that provide opportunities for different types of farmers in different locations. This portfolio of product value chains must respond to differing market opportunities and comparative advantages of different types of farmers in different locations.

44. Similarly, the opportunities and bottlenecks in particular product value chains also vary between product, location and will change over time, sometimes quickly. Hence intervention strategies

and project implementation must be organised so that it can be tailored to respond to the specific opportunities and constraints in each of the product value chains in different locations. Project teams responsible for each value chain need the authority to adapt and respond to the evolving opportunities and risks. For example, this means that if there are private services providers developing competitive, good quality business development services to farmers in some locations, then the project should work with them to expand and strengthen these services and avoid undermining them, e.g. via direct delivery of subsidized services /inputs or creating other market distortions.

45. Project design is consistent with the strategic objectives of the 2013-2018 COSOP, specifically its first strategic objective of enabling the poor small holders to take advantage of the market opportunities. It is also closely aligned with the Government's policies for rural development including the Rectangular Strategy's resolve to make agriculture a leading sector of the national economy and a key source of sustainable economic growth, as well as increase food security and reduce poverty. In addition, it is well aligned with the Cambodia Trade Integration Strategy 2014-2018 to address issues at the core of trade sector competitiveness, job and income creation, and sustainable human development.

Harmonization with other development projects of note

46. There are many ongoing and planned investment projects in agriculture. As such it is important that AIMS is able to work effectively alongside these to make complementary investments. In general terms, the multi-stakeholder platform process that will be implemented by AIMS in each VC cluster to facilitate stronger linkages between actors, will provide a forum for all stakeholders, to participate and harmonize support to the local VCs, including other development projects. Specifically, there is expected to be good harmonization with other major projects including:

Boosting Food Production Project (BFP)

47. RGC's own 3 year, USD20 million self-financed "Boosting Food Production" Project is expected to start in late 2016 focusing on rice seed and increased vegetable production among other areas. MAFF GDA are expected to take a leading role in implementation and, as the name indicates, the focus is expected to be on production issues for rice seed and vegetables. In terms of harmonization with AIMS in the two main commodities:

    (a) Rice: There is expected to be a high degree of complementarity in the premium rice value chains - with BFP focusing primarily on rice seed supply and AIMS expected to mostly target improved efficiencies along the value chain through improved mechanization, better organization and linkages within the VC. Both projects expect to work with similar leading export millers and the BFP supported seed producer groups would be expected to be keen participants in the MSP and market linkage activities conducted by AIMS.

    (b) Vegetables. BFP expects to primarily target activities in Kandal but also in some other locations while AIMS expects to work with vegetable clusters in a wider range of locations. In Kandal, the IFAD supported PADEE project has already initiated MSP and market linkage activities in the vegetable sector using similar approaches to those that will be continued and extended under AIMS. Vegetable producers supported by BFP in Kandal are expected to be invited and fully participate in these MSP market linkage activities. BFP have not yet finalized their implementation arrangements but, at the time of this mission, expect to provide grants of 30-60% to smallholders for investment in vegetable production. AIMS would not expect to need to provide such levels of subsidy - with expected support limited to early adopters in a district and on average 20% of the investment cost based on past experience as these production technologies, such as drip irrigation, mulch sheets, nettunnels or trellis nets are already in relatively widespread use in parts of Cambodia. As such IFAD has requested MEF to look at ways to

harmonize the level of subsidy provided to farmers through the two projects to limit market distortion and aid subsequent wider adoption by unsubsidized farmers to support continued growth the domestic vegetable sector.

ASPIRE

48. As programme budgeting is implemented under ASPIRE with investment budgets decentralized to Provincial Departments of Agriculture (PDAs), it is expected that PDAs will actively participate in the MSPs organized by AIMS in their province. These MSPs will enable the PDA to more easily identify the priority bottlenecks in their local agricultural value chains and target investment budgets to support the initiatives of farmers and agribusinesses, primarily related to improvements in production and initial post-harvest stages of the value chain. These will complement private and "public good" investments supported by AIMS along the VC. In addition, AIMS will benefit from the investments under ASPIRE to build the capacity of local service providers and extension services, which AIMS supported farmers will be able to hire to help them invest in improved production technologies and productive and resilient infrastructure.

49. ASPIRE will operate in ten provinces once the current five PADEE provinces join the programme in 2018. Initially, AIMS expects to operate in 7 of 10 ASPIRE provinces: Preah Vihear, Kratie, Kandal, Prey Veng, Takeo, Kampot and Battambang.

50. In addition, integrated in to ASPIRE/PADEE is the renewable energy technology project S-RET (Building Adaptive Capacity through the Scaling-up of Renewable Energy Technologies in Rural Cambodia) (S-RET). The project aims to improve the climate resilience of smallholder farmers through investment in economically viable renewable energy technologies (RET) for agricultural production and processing. Given the high energy costs faced by farmers in Cambodia, S-RET is a good fit with AIMS because it allows farmers to increase production, processing and post-harvest handling through the adoption of cost-effective RET in their value chains. Additionally, AIMS will benefit from a more in-depth understanding of energy use in the agricultural value chain (for example, using solar energy for water pumping, drying and processing),energy consumption, energy sources and associated costs for the selected commodities.

ADB's new agricultural value chains project

51. A USD40m project is being designed in 2016 to support value chains, with the expected main investments to be in infrastructure (irrigation, roads) in support of a number of priority value chains and focussed in a small number of provinces. While the project is still in design, candidate value chains include: rice, mango, pepper, maize, longan and cassava. Candidate provinces include: Takeo, Kampot, Kampong Chham, Tbong Khmon. Given these lists, AIMS is expected to share some value chains and some provinces. With the ADB project's expected focus on irrigation and roads, these are likely to be complementary to the investments and market linkage focus of AIMS. In addition, the MSP organized under AIMS could provide a strong mechanism to help the ADB project target specific infrastructure investments that are identified as major priorities by the primarily VC actors themselves, thus increasing the likelihood of bigger impacts from these infrastructure investments.

Support to the Commercialization of Cambodian Rice Project (SCCRP - AFD financed)

52. SCCRP has made strong progress in linking progressive exporters to rice farmers, especially in Preah Vihear and Kratie, including working with farmer Agricultural Co-operative originally formed under the previous IFAD RULIP project. AIMS is expected to continue this work, with rice clusters in Preah Vihear and elsewhere. The flexibility of the VCIF and SDF under AIMS is expected by the managers of SCCRP and the AIMS design team to enable the two projects to work in close complement to each other, with joint cluster support and complimentary investments. For example, AIMS will have the flexibility to support increased investment in mechanisation service business which is a key priority these rice cluster and for which SCCRP has not had the resources to directly address. There is similar complementarity in regards to

RDB strengthening, which SCCRP has initiated and AIMS expects to build on and continue under Component 2.

HARVEST 2 and related initiatives of USAID

53. HARVEST 2 will also working in commercial horticulture sector with smallholders in 4 provinces. AIMS will be able to closely coordinate with the HARVEST 2 teams, both through the MSP and also at the management level. There is confirmed interest from both sides to deepen coordination, for example in harmonizing approaches to investment grant mechanisms, coordination around vegetable cluster MSPs and related activities in common provinces and sharing of experience on aspects such as market information systems.

Other projects

54. Forthcoming, current and recent - which may also have some relevance include, among others; EU's fisheries and livestock improvement programme with MAFF; the Australian financed CAVAC 2 (especially in terms of working with the private sector and agri-support market development);and the IFAD/GEF financed S-RET.

II. Project description

55. Project duration is expected to be 6 years, starting in the first quarter of 2017.

A. Project area and target group

56. The project will have the mandate to operate in all parts of the country, with actual locations determined by the selection of priority value chains and the associated areas engaged in the value chains from production to the market.

57. AIMS' primary target beneficiaries will be smallholder farm households, including poor (ID1 and ID2) and near poor farmers, participating in the supported value chains who voluntarily collaborate in project activities. In addition, secondary target groups are the other primary and secondary actors in the value chain, including, *inter alia*: agricultural cooperatives; farmer organisations, MSMEs; agribusinesses; service enterprises, and; industry associations.

58. With an initial starting set of value chains confirmed as: 1) vegetables, 2) backyard chicken, 3) quality assured rice, 4) cassava and 5) raw silk, AIMS is expected to initially have activities in 15 provinces. In some provinces, just one value chain may be active initially, while there may be multiple support value chains and clusters in other provinces. The 15 starting provinces and expected value chains are summarized in Figure 5. A second set of value chains will be defined in year 2 among which (fruits plantation and production (langane, mango,…), livestock/beef production, selected spices (pepper, cardamom, non timber forest products), etc.) will be considered.

Figure 5: Matrix of starting value chains and provinces

Hub	Province	Flagship VC				
		Vegetable	Backyard Chicken	Quality Assured Rice	Cassava	Raw Silk
Technical Hub 1: South East (Takeo)	**Kandal**	■				
	Takeo	■	■			■
	Kampot		■			
Technical Hub 2: East / N. East (Kampong Cham)	**Prey Veng**	■	■			
	Kampong Cham	■	■	■	■	
	Kampong Thom	■	■		■	
	Tbong Khmom				■	
	Kratie				■	
	Stung Treng				■	
	Ratanakiri				■	
	Prey Vihear			■		
Technicl Hub 3: North West (Battambang)	**Battambang**	■	■	■		
	Siem Reap	■	■			■
	Banteay Meanchey		■	■	■	■
	Pailin		■			

Note: Province highlighted in **bold** are also ASPIRE / PADEE provinces.

59. **AIMS' primary target beneficiaries** will be smallholder farm households, including poor and near poor farmers, participating in the supported value chains who voluntarily collaborate in project activities (at least 75,000 households).

60. In addition, secondary target groups are the other primary and secondary actors in the value chain, including, *inter alia*: agricultural cooperatives; MSMEs; agribusinesses; service enterprises, and; industry associations. These secondary target groups are not necessarily poor and can be in better off category. However, most of them can be market makers for smallholders and the poor, and are the driving force of the value chains. They are to help smallholder farmers (including poor farming and women-headed households) to move beyond subsistence and become commercialized, if conditions are right and an enabling environment is in place.

61. The project targeting approach therefore has three important aspects:

    (a) Selection of a portfolio of value chains which have credible potential for inclusive growth and also are accessible to a range of different types of farming households with different resources and capabilities. Some value chains, such as chicken, vegetables and silk, are expected to be especially well targeted to women and those with small land holdings. Others, especially rice, cassava and chicken, have very low entry costs. Criteria for VC selection are summarized in para. 70 below.

    (b) Selection of the geographical locations (e.g. production clusters) around which to anchor VC intervention activities. At the community level, the individual value chain intervention strategies are expected to identify appropriate “cluster areas” for more intensive engagement to strengthen credible raw material supply clusters in order to facilitate

increased buyer interest in the area. The identification of clusters will involve rapid mapping of market demand, stakeholder interest, poverty, social and demographic data. Targeting of communities in cluster areas will be based on considerations of potential for poor and near poor smallholders to profitably engage in the particular value chain alongside other smallholder farmers and the suitability of the particular product / production systems to local conditions, including considerations of resilience and labour availability.

(c) The way in which specific interventions are designed and delivered, including the phasing of delivery, to maximize the likelihood that increasing numbers of poorer smallholders can also participate profitably in the growth of the local VCs over time. For example, AIMS will need to choose practical interventions that increase the impact on smallholders, especially active but poor farmers (e.g. by promotion of production systems relevant to their resources).

62. Analysis of the incidence of poverty (ID Poor) by province compared to the expected ease of entry (inclusiveness) of the different value chains suggests that AIMS smallholder beneficiaries may expect to include around 27% ID Poor (based on 2011 ID Poor classification). further details of this analysis by value chain and province are included in Appendix 2. This projected target for inclusion of ID Poor should be closely monitored during supervision and assessed during the MTR to determine if other actions are required to reach the target. The monitoring efforts should also closely examine any instances of elite capture.

B. Development objective and impact indicators

63. AIMS represents a new generation of IFAD-supported projects with RGC, in keeping with the continuing rapid development of the country, and integrating rural areas in the overall economic grow and integration into ASEAN market.

64. As a project, AIMS' immediate objectives are to deliver substantial and sustained direct financial benefits to +75,000 smallholder farmers and agribusinesses through the inclusive development of selected value chains for higher value agricultural products serving domestic and export markets. This is intended to contribute towards the development of new engines for growth of a higher value agriculture sector in Cambodia that is urgently needed to sustain recent strong economic growth and continued progress in reducing rural poverty.

65. At a more strategic level, AIMS must help build the capabilities and institutional capacity within the agricultural sector and in RGC that can sustain ongoing growth and contribute to the transformation of Cambodia agricultural sector to a higher value sector - playing to its distinct strengths and advantages rather than competing head-on with its neighbours, too often in low price, low quality market segments.

66. These dual immediate and strategic considerations are reflected in the proposed design, the objectives and impact indicators of which are summarized below:

Goal / Objective	**Indicators**	**Target**
***Goal*:** Enhance prosperity of Cambodian smallholder farmers through increasingly profitable links to agri-businesses and markets	1. 80% of total of 75,000 direct beneficiaries increased real net farming income by >30% (Unit = No. of households)	75,000 HHs
Development Objective: To increase returns from farming for smallholders, including poorer farmers, through efficient public sector investment	2. Number of beneficiaries increase return on labour in farming by 50%	40,000 HHs
	3. Economic Internal Rate of Return	20%

C. Outcomes/Components

Outcomes

67. Outcomes expected of the project are:

Outcome	Indicators	Target
Outcome 1: Profits to farmers and businesses from inclusive value chains increased for multiple higher value products	4. Aggregate value of products sold in target locations in AIMS priority value chains in real terms[10]	30% increase
	5. Adoption rate of production and postharvest technologies[11] of participating farmers	60%
Outcome 2: Private investment increased in priority value chains from smallholders and agri-businesses	6. Agri-business investment in priority value chains and production clusters	30% increase
	7. Smallholder investment in priority value chains and production clusters	30% increase
	8. Participating smallholder framers with increased financial literacy levels	50%
	9. Partner Financial Institutions (FIs) continue financing VCs after end of project	5 FIs
Outcome 3: Substantially increased capacity of national and sub-national institutions to design and deliver inclusive agriculture market development initiatives	10. MSPs that are active, well attended and positively regarded by participants of target VC cluster locations	90%

Components

Component 1: Value Chains Development

68. This is the lead component for AIMS and the driving force for impact for the entire project. The component will focus on brokering, facilitation and capacity building support to inclusive growth initial of five higher value product value chains - covering food and non-food crops and livestock and additional ones later. The 4P models of public-private-producer partnerships (IFAD) will be relevant to the supported contract farming arrangements.

Value chain selection

69. During the design process there was broad agreement of the importance of domestic market opportunities alongside export opportunities, given the strong demand and shorter/ simpler value chains (VCs) for some domestic markets.

70. The overall assessment is that there are already a number of product VCs, both larger and more niche, serving domestic and export markets, that meet the AIMS project requirements for fully fledged initial support based on the following criteria:

(a) clear, current market demand for the specific products

(b) interest from traders and agribusinesses to grow their sourcing from local value chains

(c) interest from farmers, including smallholders, to expand and improve their production

[10] calculation of "real terms" should include correction for changes in wider reference market prices for the particular product so that any gain/loss from general market price fluctuations are discounted.

[11] "Adoption Rate" in the production/post-harvest practices to be defined for each target product by the M&E team with technology experts at the start of the project. At the farm level, this is typically expected to include farmers adopting at least 2/3 of the components of an improved technology package for production a specific crop/livestock. Each of the technology components will be clearly defined and objectively verifiable, similar to what is already practiced in PADEE and ASPIRE projects

(d) opportunities for competitive, profitable and sustainable smallholder production already demonstrated in Cambodia at a reasonable scale

(e) practical intervention opportunities for AIMS to facilitate the accelerated development of the particular market and local value chains

71. AIMS will therefore initially focus on five "flagship" value chains from Year 1:

i) quality assured rice[12]; ii) vegetables; iii) backyard chicken; iv) cassava; v) raw silk

72. AIMS may add additional value chains from Year 2 onwards that meet project criteria, as outlined above, and subject to the capacity of the project teams to support additional value chains(fruits plantation and production (longan, mango,…), livestock/beef production, selected spices (pepper, cardamom), non timber forest products, etc. This may also include initial pilot activities in VCs in which there is considered to be potential but in which specific issues need to be addressed before wider support can be justified.

73. Local priority VCs also have substantial potential and the regional technical hub teams, including representatives of farmers, businesses and local authorities will be supported to identify and screen local priority commodities and lead the selection of a limited number of additional local VCs to be included in AIMS as additional VCs mentioned above. (e.g. up to two local VCs per hub during the project subject to implementation capacity and resources). Candidate local VCs already mentioned by agribusinesses and farmers in various location include: longan, mango, pepper, beef and, potentially, aquaculture. A key test for inclusion of each of these for support under AIMS, with IFAD funding, is that there are demonstrated pathways to inclusions of poorer smallholder farmers into these value chains.

Value chain brokering and facilitation

74. The approach will be to build on existing and emerging production clusters and will: i) follow an iterative neutral brokerage process to facilitate and develop links between buyers, producers and service providers (through "multi-stakeholder platforms" (MSPs) and Contract Farming mechanisms);ii) give priority to innovation in local value chains, especially using the VC Innovation Fund (Comp 2.1), and; iii) actively promote the development of local private sector business development service markets.

75. Given the structure of the agricultural sector in Cambodia, with many smallholders and small informal enterprises but only a few larger formal agribusinesses, the project adopts approaches that enable it to harness the activities of both small and large agri-businesses.

76. **Clusters:** a cluster is a geographic concentration of interconnected producers, businesses, suppliers, and associated institutions which creates direct and indirect synergies among them, resulting in market linkages. This means that a cluster approach will geographically group the key actors along the value chain in the same areas. For the purposes of AIMS, this will typically be defined geographically by zones of production which form discrete buying zones of a number of competing buyers/traders.

77. The key actors in a cluster include input suppliers, farmers, buyers, service providers and government agencies that will discuss arising issues in multi-stakeholder meetings and develop an action plan together to tackle the issues. It can be seen as a ‘stakeholder association’ which is a tool to create trust, address common issues and strengthen the value chain. If they are

[12] The term "Quality assured rice" is used to mean rice produced in a supply chain in which there is a traceability/quality assurance system along the supply chain and which uses this as part of its proposition to customers/ market access requirements e.g.: organic, GlobalGAP, or the Sustainable Rice Platform standard promoted by MARS Foods and others. Quality assured rice might be fragrant rice or ordinary white rice - depending on the customers demand. This is a particular segment of the Cambodia rice industry which has potential for growth. It has been prioritized by the AIMS design team as many of the more general rice exporters have struggled to retain customers, in part due to too much variability in the product delivered. Furthermore, a small project like AIMS does not have the resources to support the entire Cambodian rice sector.

effectively going to address value chain constraints, clusters need to be used as a means to achieve an end not as an end in themselves.

78. A cluster is useful when (1)the value chain is highly unstructured throughout its segments (transportation, distribution, enabling environment), thus requiring interventions by numerous stakeholders who could not resolve any single issue alone, (2) trust among stakeholders is weak and hence a special effort to create trust and 'social capital' is necessary and (3)obstacles to objectives (e.g. increased sales) need to be addressed by multiple stakeholders and value chain segments (USAID, 2008). Overall, a cluster approach would help to address value chain constraints by building stakeholders relationship and finally respond to market needs. (See Appendix 4, Para 310 - Cluster-based approach for further detail).

79. For each value chain, the potential for the local cluster development will be re-confirmed by initial rapid scans including confirming buyer demand and mapping and analysis of the different players (buyers, suppliers, banker, and service providers) and attractive to smallholders and youths. Following on from this, with both small and large agri-businesses as well as smallholders, an iterative process of facilitated meetings and discussions between buyers and producers will identify immediate and medium term intervention strategies addressing bottlenecks as well as opportunities for VC growth that can be taken individually or jointly by the local value chain actors.

80. **Multi stakeholder Platforms:** The MSP approach is expected to be the central anchor process used in all the value chains, with the exception of the initial investment in the premium quality assured rice and raw silk value chains which are expected to be initially centred around contract farming arrangements between a small number of lead firms and their farmer networks. Contract farming between certain firms and networks of farmers can also be supported in other VCs, where interest emerges for this through the MSPs. The 4P models of public-private-producer partnerships will be relevant to some of the supported contract farming arrangements, especially for raw silk. In this regard the IFAD How To Do Note on 4Ps is a useful reference.

81. The project will facilitate these ongoing MSP, business to business (B2B), business to service (B2S) and Contract Farming processes and then provide technical and financial support to address the particular priority bottlenecks and actions identified by the value chain actors that they cannot directly address without additional external technical or financial support. For project support, priority will be given to investments (large and small) that bring innovation in to the local value chain and that address the jointly identified bottlenecks of the primary VC actors in order to maximize the sustainable impact on smallholders (see Component 2).

82. The MSPs and the follow-up B2B, B2S activities typically need to be most intensive in the early stages of the transformation and upgrading of the local VC. This intensive period can last 2-5 years, but once a vibrant local sector is operating the intensity of the MSPs reduce to a stable ongoing level. This then has two implication for sustainability:

    (a) For the cluster-level MSPs, experience from elsewhere is that the producer groups and traders/agribusinesses recognize the value in these dialogue meetings and are keen to continue them themselves after the project as part of their ongoing relationships.

    (b) At the hub level, the issues become more strategic / policy related and do require some continued professional facilitation among the different actors. This is not a significant cost, but is necessary. Different models for sustaining this are available but must be acceptable and negotiated with the actors in each VC once the VCs are more vibrant and MSPs more mature. In some countries these are done through industry associations - if they are genuinely representative of producers and businesses - while in others the government continues to support this industry facilitation service as a "public good" (e.g. Netherlands swine industry).

83. AIMS will develop a cadre of individuals who have the necessary industry facilitation skills - across the Chambers of Commerce, Farmers Organizations and government teams. This will make it much easier for such facilitation to be sustained after the end of the project, regardless of the particular institutional and financial arrangements chosen by the VC actors to continue it.

84. In supporting contract farming development AIMS will undertake a series of business development services (technical assistance, training courses, …) to increase awareness of the contract farming modality, its potential and its problems. Skills of selected service providers will be upgraded to enable them to provide support to the assessment of business plans involving contract farming and to the development of contractual arrangements through the training and organization of farmers and through support to contract negotiation.

Market-oriented social mobilization

85. For mobilization of farmers into the local VCs, the project will engage teams of market-oriented social mobilizers to work with the Regional Hub offices (see below). These social mobilization teams will also be the mechanism through which business and financial literacy training is provided to almost all participating AIMS farmers, via a cascade system using a system of Business Literacy Facilitators nominated by the members of the producer groups themselves.

86. In working with farmers, AIMS will be free to work with existing farmer groups and organizations, and mobilize new producer groups focusing on the particular product. As a general guide, based on past experience, existing groups should only be used as the entry point if a majority of their members want to join the specific VC concerned. If not, new producer groups should be mobilized.

87. New markets and new marketing techniques will be explored to benefit the framework of the ASEAN economic community and recent consumers trends observed in the region (organic vegetables, fair trade labelling, OTOP/OVOP One Village on product with starring system to rank products by quality).

Sector Development Facility

88. A Sector Development Facility (SDF) will be managed directly by the PMO of MoC (in its responsibility for Component 1) to focus on "public goods" that address specific bottlenecks to the VC development identified by the VC actors themselves through the MSP dialogues processes. The SDF will focus on "public good" investments only that cannot reasonably be delivered through private investment in the current context of the specific VC.

89. Investments under the SDF will be managed as distinct sub-projects, implemented either directly by the project teams or a suitably qualified contracted organization from either the public or private sector. Selection of the implementing partner for each sub-project will be based on purposeful selection of the best qualified to deliver the sub-project objectives and activities but with an element of competition where multiple equally-well qualified and interested potential partners are available. While SDF will focus on "public goods" for the VC, the private actors in the VC will be expected to make a financial contribution of at least 5% to all SDF sub-projects in order to confirm that these are indeed an immediate priority for the value chain actors themselves. For SDF sub-projects of more than USD20,000 value, the Central Investment Committee (see VCIF) shall be responsible for making the final decision on the selection of the implementing partner and approval of the sub-project.

90. Types of investment expected under the SDF include, among others: market infrastructures, small equipment, investment in physical markets, upgrading public testing labs or sanitary and phyto-sanitary (SPS) inspection capacity at provincial level, strengthening trade research capabilities, supporting bilateral SPS negotiations, piloting novel or untested business models (e.g. for health cassava seed nurseries), initial demonstration and promotion of new technologies or production systems, actions research, market studies etc.

91. The SDF Guidelines shall govern the contracting of IFAD proceeds under a Private Public Partnership Framework/ Model unless these resources are used by MOC to procure goods, civil works and consultancy services which would then be governed by the SOPs and the IFAD Procurement Guidelines.

Flagship VC entry points

92. Actual intervention priorities for AIMS will be determined by the VC actors themselves via the MSP processes. However, based on initial discussions with businesses and farmers and the design team's investigation of the flagship VCs, a number of specific issues and opportunities have emerged which are considered likely to provide important initial entry points for AIMS within these VCs. These are briefly summarized below and will be revalidated by the Hub teams during the initial VC rapid mapping and MSP dialogues at the start of the project. Further on production quality and quantity, harvest and post-harvest techniques, transformation and processing, marketing and trading will all be encompassed in the support to VC development.

Table 3: Entry points for flagship value chains

Flagship VC	Entry point / opportunities for AIMS
Quality assured rice	Increasing efficiency in closely managed supply chains through: 1. increased investment in mechanization and improved production and post-harvest practices along the supply chain and 2. better organization of the supply chain and relationships between lead export rice millers and producer groups.
Vegetables	Better linkages between buyers / traders and producers to jointly respond to market opportunities, especially import substitution of selected types of vegetables. This will require a combination of: 1. increased productivity of smallholder vegetable producer through improved production techniques. This will require more private vegetable technicians to advise and support farmers to invest in improved VC production. 2. better organization and structuring of the value chains so local producer groups can become reliable suppliers for bigger buyers - i.e. farmers working together to plan and aggregate sufficient volume of the right products at the right time in order to reduce transaction costs and increase efficiency and reliability as a supplier, 3. reducing losses in the value chain, through better organization and also investment in appropriate collection, transportation and storage equipment and facilities 4. gradual diversification of the range of vegetables being produced where there is potential for competitiveness
Backyard chicken	There is very strong demand across the region and domestically for backyard chicken, as seen in the premium pricing vs broiler chicken (typically USD3.5/kg vs USD2/kg). Recent IFAD and joint IFAD/ADB support projects have demonstrated successful semi-intensive smallholder backyard chicken production system which have the potential to transform the local industry by dramatically raising the profitability for small producers. The entry points therefore include: 1. Increase the profitability of backyard chicken production to stimulate wider investment. and increase supply to meet strong demand. This will require development of private service providers to advise farmers how to set-up and operate these systems and supply the necessary inputs (chicks, feed, medicines) and especially reduce mortality rates primarily through better sanitary and phyto-sanitary safeguards at the household production level and proper use of vaccinations. 2. Increased supply will require better organization of the supply chain and relationships. Groups of chicken farmers will need to link to more traders and buyers to aggregate supply to serve local and outside markets. As well as stronger relationships and networks, this is also likely to need investment in collection and transport facilities and equipment.

Flagship VC	Entry point / opportunities for AIMS
	3. With a growing poultry industry, strong animal health monitoring and enforcement systems will also need to be developed.
Cassava	To sustain the industry in the medium term there is a need to improve sustainable farm yields which are declining through widespread disease problems and poor soil nutrition management, largely through lack of experience and technical knowledge among farmers for cassava production which is a relatively recently adopted crop. Recent IFAD/RGC/CIAT supported projects (e.g. RULIP, 4FGF) have demonstrated good systems for improved sustainable cassava production in east/north east agro-ecological zones. However, the nature of the diseases means there is also an urgent need for reliable supply of large volumes of healthy cassava seed annually to sustainably reduce the disease burden in the industry and raise underlying competitiveness. 1. Given the scale of the cassava industry (>400,000 ha.), this will require investment in networks of private nurseries producing and selling healthy cassava seeds bundled with appropriate production advice on soil nutrition management to the very large numbers of cassava farmers. Focus initially on the major cassava zones in the north / north east where cassava fields are smaller and sustainable cultivation systems, based on intercropping and/or rotational cropping have been demonstrated to be viable and effective. The larger cassava fields and lower agricultural labour in the north west mean the production systems for sustainable production in the north east are unlikely to be adopted in the north west. 2. Attracting more investment in cassava processing factories, whether for starch or feed, will also help anchor local demand. Some recent factory investments have struggled to reach profitability, so it will be important to understand what the barriers have been and mobilize support accordingly.
Raw Silk	The critical issue is to demonstrate that raw silk production (cocoon or yarn) is an attractive investment for small farmers. For this to stand any chance of being successful, farmers must achieve high levels of silk productivity for which a reliable supply of quality genetics is vital - for mulberry plants and especially silk worm eggs. Recent efforts in this area in Cambodia have not resulted in a dynamic local raw silk sub-sector despite considerable efforts and resources. AIMS therefore needs to learn from these past efforts to increase the chance of success. The AIMS model of private driven investment in which lead silk firms carry the main risk is considered to give the best chance of making any pilot investments a success, though this is by no means certain. 1. As such, AIMS's entry point is likely to be initial pilot PPPs with upto 3 leading silk garment businesses to set-up contract farming schemes to produce raw silk for their own operation. These PPPs should also include arrangements for supply of improved quality silk worm eggs and quality mulberry saplings through private nurseries.

Component 2: Value Chain Financing

93. In support of Component 1, this component has the objective of stimulating increased private investment into the priority value chains by farmers, MSMEs, agricultural co-operatives (ACs), agribusinesses, service providers and others. The priorities for the investment agenda in each VC will be driven by the private VC actors, via the ongoing brokerage and facilitation process organized around the MSPs in each value chain (Component 1).The VC Financing component will take a three-pronged approach to stimulating far higher levels of private investment in to the priority VCs:

(a) highly targeted direct investment incentives will be offered on a competitive basis to "first mover" and early adopter investors - whether farmers, MSMEs, agribusinesses or others - who are prepared to invest in bringing innovations into the local value chains to address identified bottlenecks - via new technologies, new business models, new products or new

services. The "first mover" investment incentives will be delivered through partial matching grants, expected to average around 20% of total investment costs, and be "priced" to reflect the increased risk to the "first movers" but limited so as not to significantly distort the market. The grants should not seek to replace mainstream debt and equity financing. Once successful "first mover" investments have been made and other VC actors can see they are commercially feasible, the direct investment incentives will be phased out in that particular VC segment.

(b) demonstrating to mainstream financial institutions the potential for expanded commercial lending to an increasing range of investment opportunities in agriculture. This will be done through the provision of a line of credit to RGC's Rural Development Bank for on-lending to value chain actors in the supported VCs.

(c) replication and scaling-up of commercially feasible investments in priority VCs, often demonstrated through the "first mover" grants above, will be facilitated by working with leading MFIs and banks to increase their capability to lend profitably to the agriculture sector in general, and the different segments of the priority AIMS VCs in particular.

94. These elements of the approach will be implemented through two sub-components:

2.1 Value Chain Investment Support

95. AIMS will provide direct financial support to stimulate private investment through two instruments for policy-based financing, expected to be administered by RDB or a 3rd party fund administrator.

96. The total value of support grants and loans available to each VC through the VC Innovation Fund (VCIF) and line of credit should be broadly in proportion to the expected "development outcomes" of the particular value chain (in terms of number of farmers benefiting and amount of increased profit per farmer).Only investments assessed to be commercially feasible would be eligible, including allowing for the theoretical cost of financing the grant element with a bank loan.

97. To avoid potential conflicts of interest, the appointed VCIF fund administrator will not participate in the grant appraisal and decision making for grants awarded under the VCIF, but rather administer the processes and ensure compliance with the approved Fund Guidelines and required fiduciary practices. The total value of investment support is expected to be in the order of USD18 million.

a) Value Chain Innovation Fund (VCIF)

98. It is expected that this will be of the order of USD 9 million. The VCIF will provide targeted investment incentives to "first mover" private investors (farmers, agricultural co-operatives, MSMEs, agribusinesses) along the selected value chains who invest in new production technologies, business models or other services/functions needed in the value chain. The incentives are to absorb part of the additional risk associated with "first mover" investments. The objective is to encourage potential adopters of new technologies or business models with unknown risks and economic benefits to actually adopt these and test their validity; this experience, as properly documented and analysed, will facilitate their wider adoption and scaling-up without government subsidy and help create turnover, income, tax revenues and employment.

99. Investment incentives will be implemented via partial matching grants to private investors, based on selected investment plans through a competitive process targeted specifically at the identified bottlenecks in each VC that emerge through the multi-stakeholder platforms. Grants are expected to represent around 20% of total investment on average with the balance contributed by the private investor (agri-businesses, producer groups, ACs, farmers etc.) from either their own capital or with own capital and loan finance. The percentage of grant offered

and other terms will be actively monitored and revised if necessary based on actual uptake for different types of investments and VCs being targeted.

100. The VCIF will initially operate three Windows, each targeting a particular scale of investment and linked to the function along the value chain, as summarized below and detailed in the draft VCIF Guidelines attached to the PDR. The call for investment proposals under all three Windows will be driven by the priorities determined by the VC actors themselves through the MSP dialogue processes in the relevant VC and cluster. The Windows will be:

(a) **Window 1: Smallholder farm investments** in improved on-farm production and initial post-harvest technologies and systems. Only non-rich smallholders are eligible, screened by land holding (or household assets) and by VC. Average grants of USD 500/household are to be expected. Up to 30 grants per district for "first mover investors" in the promoted technologies are requested to provide the critical mass for demonstration effects to other farmers in the local VC cluster. Grant appraisal and award decisions will be made by a Hub Investment Committee.

(b) **Window 2: Small enterprise investments** in initial post-harvest stages of the value chain (e.g. collection centre) or service enterprises (e.g. combined harvesting service, nurseries/hatcheries), which will typically be by private businesses, agricultural cooperatives or similar. Average grants of USD 15,000 are expected for investments serving at least 50 households (equivalent to USD300/household served). Up to 4 grants per province will be made for "first mover investors" in the promoted investment type to provide the critical mass for demonstration effects to other investors in the local VC cluster. Grant appraisal and award decisions will be made by a Central Investment Committee.

(c) **Window 3: Medium business investments** in the downstream VC, for example export grade packhouses, modern slaughterhouses, multi-chamber cold stores, processing factories. Average grants of USD35,000 are expected up to a maximum of USD100,000 with the maximum of the equivalent of USD 300 per household substantially benefiting from the investment (e.g. as a major buyer of the farmers produce).In order to be eligible for a USD100,000 grant, the investment must deliver substantial benefits to at least 330 smallholders, typically as suppliers. Up to 2 grants per hub will be made for "first mover investors" in the promoted investment type to provide critical mass for demonstration effects to other investors in the local VC cluster. Grant appraisal and award decisions will be made by a Central Investment Committee.

First movers

101. "First mover" and early adopter investors are private actors working in the targeted value chain cluster - including producers, traders, agribusinesses, service providers and input providers - who are prepared to invest in bringing new innovations into their local value chains to address identified bottlenecks - via new technologies, new business models, new relationship structures, new products or new services.

102. For the purposes of AIMS and eligibility for VCIF grants, specific eligibility criteria are defined in detailed in the draft VCIF Implementation Guidelines included as Working Paper 5 for each of the three Windows, briefly summarized as:

- Window 1 for production investments by smallholders:
  - The investment constitutes an innovation to the local **district** in which it is to be located. Specifically not more than **three** communes in the district have more than 10 smallholders already actively practicing the proposed production system or investment, hence that there are not already more than 3 commune-level clusters of the investment already existing.
  - Producers may be individuals or those organized in informal farmer groups or formal associations or agricultural cooperatives; other private sector actors may have

different legal statuses, such as company/joint stock, PLC, partnership or sole proprietorship

- Window 2 for small enterprise investments in the local VC:
  - The investment constitutes an innovation to the local **province** in which it is to be located. Specifically there are not more than **four** enterprises/ACs (or similar) already operating the proposed business in the province except under the specific conditions below:
    - Where the investments are expected to require high numbers of small investments - e.g. rice driers - the total number of grant provided may be increased to cover a total number of investment that have capacity for not more than 10% of the estimated required capacity of the local cluster. This means that for example in a rice cluster in a province that would require 50 flatbed driers to meet the demand of farmers, the project could provide first mover grants for up to five driers.
- Window 3 for medium enterprises investments:
  - The investment constitutes an innovation to the hub in which it is to be located. Specifically there are not more than **two** similar businesses are already operating within the **hub** area.

103. This means that, for example, under Window 2 if there are already two small enterprises in the same district operating a similar business to the one proposed in a grant application this new investment would still be considered a "first mover" for the purposes of the VCIF (because there are less than four similar business in the districts at the time of the application.) The rationale for supporting more than one first mover under each Window is to achieve sufficient numbers of first investments to act as a strong demonstration effect to other potential investors.

b) Line of Credit to MFIs[13]

104. While a number of MFIs have agreed to provide short term capital for the investments encouraged above, the loan duration for these investments will often exceed 2 years, which is about the term that most deposit taking MFIs can extend without risking asset-liability mismatch. In addition, there will most likely be a number of credible requests for loans that the MFIs will not accept, for whatever reason (e.g. unknown type of investment, unknown management experience, unknown profit levels, insufficient collateral, lack of books and records on past operations, etc.). In addition, apart from RDB, only one MFI and none of the commercial banks in the country is currently prepared to grant a loan to a cooperative society. In this situation, the provision of loans to credible ventures by the RDB has a good potential to make a difference. As all lending resources of RDB are tied, and as the bank is short of liquidity for lending, such additional loans can only be facilitated by means of a line of credit.

105. The objectives of the line of credit are to provide RDB with liquidity for lending along the value chains supported under the project, and to refinance up to 80% of the loans granted by PFIs under the VCIF to permit PFIs respect asset-liability matching in the case of term loans with a duration of more than 2 years. It is expected that this will be of the order of USD 9 million provided to RDB for on-lending. As with the matching grant investment incentives, loans provided through this credit line will be targeted towards investments that address specific bottlenecks in the VC identified via the MSP but for which banks and MFIs are not yet ready or willing to provide commercial credit.

106. It is expected that the funding gap will be of the order of USD9 million, which would be closed through a line of credit to be provided to RDB for its on-lending to 3 MFIs. As with the matching grant investment incentives, loans provided through this line of credit (LoC) will be targeted

[13] In all cases where RDB is referred to in relation to project roles and responsibilities, a qualified private bank may be used as an alternative subject to prior approval by IFAD

towards investments that address specific bottlenecks in the VC identified via the MSP but for which banks and MFI are not yet ready or willing to provide commercial credit.

107. Typical investments expected to be partially financed by the line of credit include:

(a) more complex innovative business models in the value chains, for example joint venture partnerships between lead firms and farmer groups;

(b) businesses investing in innovative technologies not previous seen in the country, e.g. mobile cyclone grain dryers; or

(c) longer term smallholder investments at the farm level for which MFI do not have matching sources of term finance.

108. MEF and RDB will sign a subsidiary funding Agreement meeting the approval of IFAD. This agreement will specify, among others: (a) the loan duration, the interest rate applicable to operations in USD, and other fees and charges applicable; (b) the use of the LoC only for direct lending by RDB and on-lending to accredited PFIs for operations supporting and within the framework of the AIMS project; (c) the terms and conditions for both on-lending and direct lending; (d) the need to respect all relevant procedures of the Financing Agreement with IFAD, the PIM and other legally binding documents; (e) the reporting, inspection and audit arrangements; (f) the obligation to revolve the line of credit for the same purpose as stated in the Funding Agreement for a period of ten years from the date of disbursement of the first tranche to RDB; and (g) modalities for disbursement in tranches. Fresh disbursements to RDB shall be subject to evidence on disbursements, the recycling of client repayments and the available resources.

109. Given the uneven performance of RDB in the past as regards IFAD projects, the initial contract shall be signed for a duration of 30 months only, up to an amount of 60% of the total resources. The renewal of the agreement shall be subject to an explicit recommendation of the mid-term review.

2.2 Financial service provider partnerships

110. Accelerated private investment in higher value agriculture can only happen on a large scale with significantly increased financing from mainstream banks and MFIs to farmers, ACs, MSMEs, agribusinesses and service enterprises. With a particular focus on smallholder and MSME agri-finance, AIMS will work with a small number of banks and MFIs, collectively referred to as Financial Service Providers (FSPs) and Partner Financial Institutions (PFIs), to improve their outreach strategies and capability to profitably provide financing to the different segments of the agriculture sectors, and into the AIMS priority value chains in particular.

111. The main objectives of the sub-component are to create, test and widen partnerships between investors in the agricultural sector, in particular into commodities and value chains selected under the project, on the one hand, and the financial sector, on the other, with a view to increase the volume of finance flowing into the sector, and to create sustainable and profitable models for financial service delivery to the agricultural sector. In the medium to long run, it is expected that the efficiency gains achieved under these partnership arrangements will be passed on by financial institutions to their clients, thus leading to lower interest rates.

112. AIMS will initially start partnering with the three mainstream MFIs who have substantial existing portfolios in agriculture as well as having taken specific steps to strengthen their internal capacity to lend to agriculture, for example in having dedicated agriculture finance officers. These three future partner MFIs currently serve almost 900,000 active clients, whom they serve through almost 400 branches; and they have a loan portfolio of USD 1.65 billion, of which USD 642 million in the agriculture sector (40%).

113. Past performance of the RDB has been mixed, in terms of financial results and delivery on outcomes agreed upon in project documents, among them with IFAD. However, the AFD has

recently provided funds for a specialized technical assistance project to RDB, which is beginning to show results. As these are likely to end in the first half of 2017, the technical assistance under component 2.2 to the bank will further pursue this work and facilitate the transition of the RDB to a more capable and sustainable bank. Section B of Working Paper 2 (Conclusions for Project Design) provides further analysis and guidance for a dialogue with the RGC on the shaping of RDB between the need for policy interventions and efficiency, viability and capability.

114. These three MFIs will require some additional technical assistance during the second half of the project in both strategy development and overall building of capacity. Similarly, RDB is expected to require targeted technical assistance from the start of the project. In addition, where AIMS is seeking to promote investments requiring longer term investments, then the partner MFIs may borrow from RDB for term loans for specific purposes which exceed their asset-liability matching capacity. The partnerships will be based on genuine common interest and will include:

    (a) participation of local lending officers and MFI staff in the MSPs organized by AIMS to better understand the financing opportunities and demand of actors in the supported VCs and to meet farmers and businesses wanting to make complimentary investments,

    (b) in-depth information sharing from AIMS supported investments by farmers, business and other on the actual cash flow and financial performance of these investments in order to increase the MFIs' understanding of the financial risks and returns and the suitability of similar copycat investments for mainstream for loan financing.

Management of the component

115. Within MEF, a Project Implementation Unit (MEF - PIU) will be established within the General Department of International Cooperation and Debt Management (GDICDM) as the Management Team of Component 2. The composition will be in line with the provision of the Standard Operating Procedures (SOP) adopted by RGC for the administration of the externally funded projects. MEF through the PIU will (i) be responsible for the implementation of activities under Component 2 and (ii) supervise the performance of the appointed VCIF Fund Administrator and RDB or qualified private bank in relation with the line of credit. The MEF PIU will ensure that the component serves the financing needs of the VC actors participating in activities under Component 1.

116. Administration of the Line of Credit under RDB and the VCIF under the fund administrator will be done strictly in accordance with the relevant guidelines for the VCIF and Line of Credit that will be finalized as part of the PIM and for which the key principles and draft guidelines are included in the final PDR. The Guidelines and procedures include clear mechanisms and criteria to ensure that the grant support from the project is provided to genuine investments in support of the development of the selected value chains for the benefit of smallholders and that it is not captured as a subsidy by wealthy farmers or businessmen. Funds for both the line of credit and grant fund will be released in tranches based on disbursement and overall service level performance, for example in terms of the time to process loan and grant applications.

117. The three Hub Investment Committees (Window 1) and one Central Investment Committee (Windows 2 + 3) for grant appraisal and decision making will be comprised of farmer representatives, representatives of the business community, government representatives and representatives of the financial institutions. The Investment Committees will operate under a strict code of conduct and no one group will hold a majority. All individuals and the organizations they represent must declare all actual or potential conflicts of interest in the concerned value chain or investment being considered and remove themselves from any meetings or discussion, in person or electronically, concerning the particular grant. This includes, but is not limited to, financial institutions that may be expecting to extend a loan for a

specific proposed investment should not participate in the grant appraisal and decision making for any grant attached to the same specific investment.

118. It is expected that the specific condition for each Window under the VCIF and between different VCs will be reviewed annually through the Joint Supervision mission between RGC and IFAD, and the conditions adjusted as necessary to reflect real experience in the targeted VCs as it emerges.

D. Lessons learned and adherence to IFAD policies

119. The design of AIMS is strongly influenced by the outcome of the final review of the COSOP 2008-12 as well as the Scaling Up Country Study carried out by IFAD in 2011, reflections on experience during formulation of COSOP 2013-18 and implementation experience with PADEE, TSSD and ASPIRE. AIMS also draws on the lessons from recent successful project experience in the wider region on inclusive agricultural market development.

120. AIMS also reflects the evolving policies of RGC for the agriculture sector based on evaluation of implementation of the overarching Rectangular Strategy (2008 – 2013) and incorporated in the revised Rectangular Strategy (2013-2018) and the National Strategic Development Plan, and especially the identified need for intensification, commercialization and diversification of agriculture.

121. The review of the COSOP 2008-12 identified the need for a more programmatic approach in order to maximise the synergies between projects, improve knowledge management, harmonise with development partners and ensure sustained improvements to the capacity of the public extension service. The Scaling Up Study also emphasised the importance of improved knowledge management and identification of opportunities. AIMS responds to the recommendation of this study that “IFAD [in Cambodia] rebalance its operational goals with more of an emphasis on becoming truly a learning and scaling up organization.” AIMS seeks to respond to this through its core multi-stakeholder processes in the value chains as well as an explicit focus on learning, knowledge management and communication.

122. In the rural finance domain, AIMS builds on the lessons of past IFAD project with group revolving funds as well as on the recent comparative peer review of different models for community based financial organizations. AIMS also recognizes the need for future engagement in the rural financial sector to be more closely aligned with and leverage mainstream developments in the sector, which are largely being driven by the leading MFIs especially for smallholder and MSME clients. Furthermore, it will use grants only to document the opportunities for and profitability of investments in production and processing, by rewarding first innovators or early adaptors, and will refer replicators of such to the partner MFIs. The matching grants are designed in a way to encourage both investors and financial institutions to engage more in rural finance, and foster transparency and accountability in line with the IFAD documents.

123. The project is aligned with the IFAD Strategic Framework, and with Policies and Guidelines relating to scaling-up, climate change, natural resources management, environment, knowledge management, innovation, rural enterprises, rural finance, gender and targeting as described in Appendix 12.

III. Project implementation

A. Approach

124. The AIMS design will adopt the following principles as a starting point:

(a) Only commercially viable value chains and investments should be supported. This is essential for supported VCs to be able to sustain long-term competitiveness and genuine

self-sufficiency after AIMS without direct or indirect public subsidies e.g. subsidized interest loans, subsidized fertilizer schemes or free extension services for market-oriented farmers.

(b) To attract IFAD support, value chains must have credible potential for inclusive growth, meaning that significant numbers of active but initially poorer farmers can also earn their fair share of profits from the growth of the value chain alongside other farmers and agribusinesses.

(c) Successful value chains are living things that have to be grown and sustained by those involved and cannot be built according to a grand design. So investment priorities should be driven by the private sector - by farmers, producer groups, SMEs, agribusinesses, service providers - who are the ones who have to make the investments a success and carry the risk.

(d) Where direct investment incentives are used to accelerate investments that address identified bottlenecks in the supported value chains, these investment incentives should be kept to a minimum to address the necessary additional risk of those "first movers" investing in innovative technologies, business models or services that are expected to be replicable by others (using mainstream financing) once seen to be a commercial success.

(e) From the start, AIMS should promote the development of the critical supporting service and input markets that are a vital part of sustaining a competitive industry alongside the primary value chain (farmers, MSMEs, agricultural cooperatives, agri-businesses).

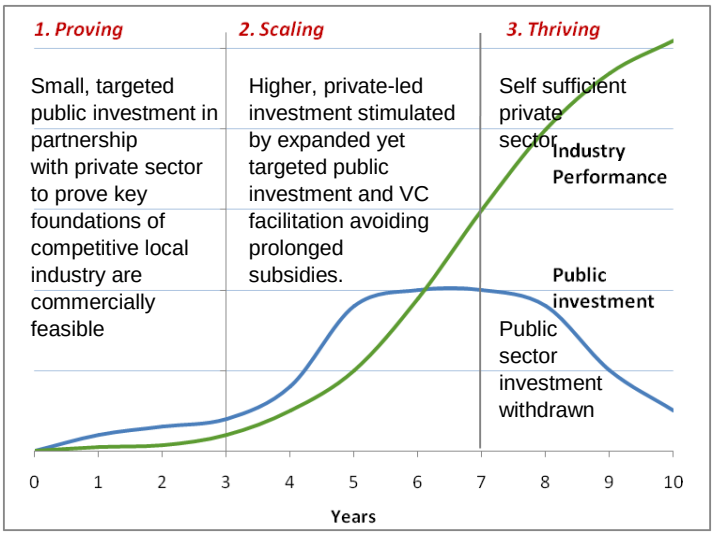
(f) AIMS should build capacity (in individuals, institutions, networks, systems) while also delivering project results.

(g) AIMS should learn from best practice elsewhere, but not be limited by this, and refine and adapt approaches to work well in the real setting in Cambodia

(h) Different product value chains are of different size, character and current state of development. AIMS must be flexible enough to respond appropriately to these different settings. Figure 1 illustrates the different stages of a VC development and AIMs should be able to accommodate different VCs joining at different stages and scales.

125. Of the five initial "flagship" VCs, it is noted that the four major VCs (rice, vegetables, chicken, cassava) are already at the "Scaling" phase in the cycle illustrated below. In contrast, raw silk production is arguably still at the earlier "Proving" stage, warranting more limited and targeted public support to demonstrate raw silk production is competitive in Cambodia before justifying wider investment support for scaling up later on.

Figure 6: VC development cycle - illustrative



B. Organizational framework

126. **Steering Committee**. AIMS will be overseen by a Steering Committee (SC) chaired by the Ministry of Economy and Finance (MEF) in view of the need for inter-ministerial coordination as well as engagement between line ministries, AIMS partner institutions and private sectors at sub-national level. MOC will co-chair the AIMS SC. MEF is also the official Representative of the Kingdom of Cambodia as the Borrower/ Recipient. For effective work and decision making, Steering Committee members will be appointed for not less than one year and total membership should not exceed 17 persons.

127. Members of the Steering Committee should include representatives of:

(a) Government: MEF (Chair), MOC (Co-chair), MAFF, MIH, MOE, MOWA (6 members)

(b) Representatives of AIMS partner institutions:

(i) Provincial Chambers of Commerce from Regional Hubs (3 members)

(ii) Partner financial institutions (3 MFIs plus RDB), (4 members)

(iii) National network of Farmer Organizations, (3 members)

(c) Technical Working Group on Agriculture and Water - Development Partner Lead Facilitator (1 member)

128. Representatives of other major related projects and donors in agriculture value chains will be invited to attend Steering Committee meetings as observers. Currently this would include: BFP, ASPIRE, CAVAC, Harvest II, S-RET, AFD, USAID, EU, ADB among others. The SC will play an important role in AIMS coordination with other DPs, in addition to the day-to-day coordination with other projects at the provincial level via the MSPs. Should coordination issues arise, IFAD will work with RGC and the other DPs to set up a more effective coordination mechanism.

129. **Overall Project Management**. Project implementation will be primarily on a decentralized basis with "light" central project management for the overall project and for each Component under MOC and MEF supporting and coordinating the major activity in the field through three Regional Hub Offices and via the contracted fund administrator for the VCIF and the Line of Credit via RDB..

130. A Lead Project Agency (LPA) will be assigned on behalf of the Steering Committee to take overall responsibility for project implementation under the leadership of the AIMS Project Director (PD).

131. **MOC** is expected to be the LPA for AIMS and also lead Component 1 on the basis that it is in charge of business development and agriculture marketing in the RGC framework and in view of AIMS' majority focus on market-linkages, facilitating investment along the value chains and on domestic and export trade and in recognition of AIMS' mandate in achieving a genuine multi-stakeholder approach with active participation of government agencies at national and sub-national levels, agri-businesses and farmers. MOC will host an AIMS Project Management Office (PMO) which will include the Component 1 management team led by the AIMS Project Director, expected to be the Director General of Domestic Trade or equivalent. The AIMS PMO will also be responsible for overall AIMS financial management, reporting and project administration activities and will be embedded in the Directorate General for Domestic Trade (DGDT), MOC. As part of the PMO, MOC's Department for International Cooperation (DICO) will provide project administration services - financial management, procurement, M&E, communication and reporting. To strengthen alignment and institutional sustainability, these services will be delivered through DICO's own operational unit.

132. **MEF** will be the Implementing Agency (IA) for Component 2. Within MEF, a Project Implementation Unit (MEF - PIU) will be established within the General Department of International Cooperation and Debt Management (GDICDM) as the Management Team of

Component 2. The composition will be in line with the provision of the Standard Operating Procedures (SOP) adopted by RGC for the administration of the externally funded projects. MEF through the PIU will (i) be responsible for the implementation of activities under Component 2 and (ii) supervise the performance of the appointed VCIF Fund Administrator and RDB or qualified private bank in relation with the line of credit. Administration of the Line of Credit under RDB or a qualified private bank and the VCIF will be done strictly in accordance with the relevant guidelines for the VCIF and Line of Credit that will be finalized as part of the PIM.

133. MEF is also the official Representative of the Kingdom of Cambodia as the Borrower. In this role, and as Chair of the AIMS SC, MEF will be responsible for: (i) Providing inter-agency coordination when required; (ii) Fulfilling the government fiduciary oversight and management responsibilities; (iii) Providing sufficient counterpart contribution in a timely manner to finance the Project activities, including payment of government staff salaries; (iv) Timely processing WAs, approval of procurement actions and other necessary documents according to the SOP.

134. **AIMS Implementing Partners** are a central part of the project implementation approach to bring in specialist expertise as well as legitimate representation of key stakeholders into the project. Implementing partners (IPs), in addition to government agencies, will include:

(a) the national network of Farmer Organizations (grouping 60 organisations and 5 apex)

(b) Provincial Chambers of Commerce in the three provinces hosting the hub offices

(c) social mobilization service provider organizations, three in total with one working as an integrated part of each hub team

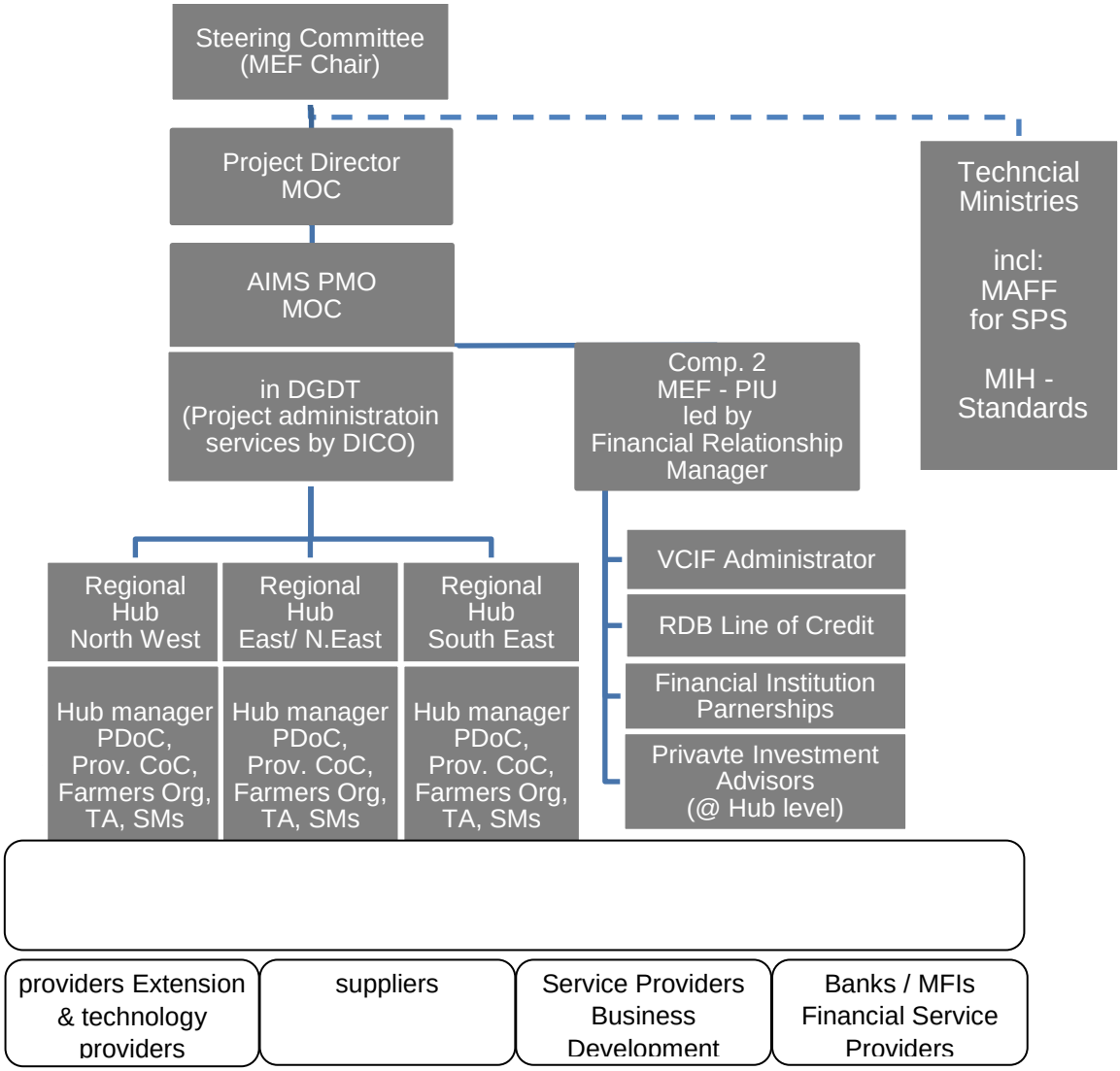
(d) partner financial institutions, initially three MFIs (Prasac, AMRET, LOLC) plus RDB

135. The Implementing Partners relationships and agreements will be managed by the management office for the most relevant components even though the IPs will have broader roles in the project, including in the Steering Committee (except the SM service providers). Consequently: the PMO will manage the agreements and coordinate the relationships with the Farmers Organizations, Chambers of Commerce and SM service providers while the AIMS PMO, specifically the Financial Relationship Manage, will manage the relationships and agreements with the PFIs.

Component 1 management

136. MOC will lead Component 1 and the bulk of field activities in the project are expected to be in Component 1. The AIMS PD will lead the overall component delivery, supported by a team of three Assistant Directors - one focusing on all technical and project management issues and two to focus on the delivery and performance of the three Regional Hub offices. .

Figure 7: AIMS Organizational Structure



137. **Regional Technical Hub Offices** (initially 3 offices) under Component 1 will coordinate field activities in the selected value chains and considered to be a sensible approach to implementation. These will be hosted in the Provincial Department of Commerce (PDC) with staff from PDC, Provincial Chambers of Commerce, Farmers Organizations, Social Mobilization service providers and contract technical advisors on value chain development. The willingness and suitability of Provincial Chambers of Commerce and the national network of Farmer Organizations to participate as implementing partners in the project has been confirmed, including assigning staff to work as part of the Regional Hub teams with associated costs covered by the project which will enhance the efficiency of the hubs and their insertion in marketing mechanisms.. The Hub Offices will:

(a) be organized into VC Teams - with each VC team covering one or more VCs and to be accountable for delivery of results in their assigned VCs

(b) coordinate overall project activity in each VC, via the VC teams

(c) function as the "honest broker" in running the ongoing VC facilitation process, via the multi-stakeholder platform process to be used in AIMS

(d) include representatives from government, private businesses (Chamber of Commerce) and farmers (farmer associations) plus necessary TA and other contracted staff to ensure wide acceptance as "honest brokers" among VC actors

(e) have market-oriented social mobilization teams attached to the hub offices in order to mobilize and support farmers to successfully participate in the expanding value chains. These social mobilization services will be provided by external services providers under contract, e.g. from experienced market-oriented NGOs or private service providers.

(f) include PDAs as active participants in the multi-stakeholder platforms coordinated by the Regional Hubs in each value chain.

138. **Technical and business development services to agribusinesses and farmers** will be primarily delivered by private service providers with costs paid by service users in order to move toward self-sufficiency within market-oriented value chains (i.e. not reliant on long-term direct or indirect subsidies from the government).

139. **Component 2 management:** MEF will lead the implementation of Component 2 and will ensure that the component serves the financing needs of the VC actors participating in activities under Component 1. MEF will supervise the performance of RDB or qualified private bank in relation to the credit line and the appointed fund administrator for the VC Innovation Fund. The Component 2 management team under MEF will administer the contracts with the VCIF Administrator and with RDB for the Line of Credit. The Component 2 management team will comprise:

(a) A Financial Relationship Manager (FRM), (senior government officer) appointed by MEF will: (i) coordinate activities, including managing the relationships with Rural Development Bank (RDB) or qualified private bank and the partner financial institutions and supervising the PIAs, and (ii) act as Secretary Member of the Central Investment Committee for VCIF grant appraisal and award decisions. The FRM will be assisted by a recruited National VC Finance Specialist. The FRM will be responsible for the preparation of all financial reports to be submitted to MoC on a regular basis.

(b) An appointed Financial Investment Officer (FIO) to analyse and document the financial and commercial performance of the different investments supported under the VCIF and credit line in order to communicate to other potential investors and FIs as to the actual returns and risk from the different investments prioritised by MSPs. FIO will be assisted by a recruited National Financial Investment Specialist.

Six Private Investment Advisors (PIAs), reporting to the FRM will be assigned by two to each hub and hosted by the Provincial Department of Economy and Finance (PDEF). The PIAs will: (i) have the responsibility for managing the grant application process under the VCIF, (ii) be available to provide pre-investment advice to potential grant applicants, (iii) carry out field validation visits to all grant applicants as part of the initial application review process, and (iv) be responsible for communicating directly with the grant applicants to keep them informed of the progress of their application and award. While administratively hosted by the PDEF, where possible PIAs will work in the same physical office as the Hub teams under Component 1 to ensure close coordination.

C. Planning, M&E, learning and knowledge management

Planning

140. Planning processes and schedules within AIMS will be harmonized with the mainstream planning process of MEF and MoC as much as possible.

141. **Annual work plan and budget (AWPB) Approval Process**: During the final quarter of each year, the AIMS PMO will prepare the AWPB for the following year in coordination with the Component management teams. The AWPB will be prepared by consolidating, from Component 1: (1) the plans for each Value Chain (driven by the priorities emerging from the ongoing MSPs) and Regional Hub Office, (2) plans for investments under the SDF; and from Component 2: (1) expected disbursement under the VCIF and Line of Credit to RDB and (2) plans associated with each of the FSP partnerships.

142. The forecasted disbursements from the VCIF and Line of Credit will be jointly developed by the VC Teams from Component 1 with the Component 2 managers.

143. The AWPB will be submitted by the Project Director and approved by the annual meeting of the AIMS Steering Committee (SC). Because of the risk of timing difficulties arising, the AWPB will be deemed approved if there is no comment by the members of the Steering Committee or no meeting is held within two weeks after submission of the AWPB for review by the SC.

144. **Programme Budgeting (PB)** is just beginning to be mainstreamed within MoC though at its very early stages. It is therefore not yet clear how this will operate in practice. AIMS will therefore not initially follow the Performance Based Budgeting and PB approach, but this will be reviewed at MTR to assess if it is appropriate and feasible for AIMS to move in this direction. The experience of ASPIRE in following PB in MAFF will provide important lessons in this regard.

Monitoring and evaluation

145. A key focus for the M&E will be to build a highly effective management information system (online and offline, internet and mobile devices) that provides project managers and VC teams with timely and reliable information on developments in each of the priority value chains so that the intervention plans can be managed for impacts and open to other sources of information and value chains networks in neighbouring provinces and countries..

146. The M&E and management information systems should be primarily based on IFAD standard monitoring system and on principles of the Donor Committee for Enterprise Development Standard (DCED Standard), which represents current best practice, and incorporate the key indicators and instruments required by RIMS into a single M&E system (as has already been proven by other IFAD supported inclusive market projects in the region).

147. The M&E system will include the use of regularly updated results chains and M&E frameworks for each priority value chain to compliment the overall “RIMS plus” M&E and project logframe. The use of results chains for each VC will enable the identification and tracking of relevant intermediate change indicators for each VC and cluster. They will also be a powerful tool for communication among VC stakeholders to develop shared understanding of the opportunities, bottlenecks an inter-dependence of different actions and investments.

148. AIMS will follow a system of "rolling baselines" in which baseline data on each cluster is collected at the time that interventions begin in the particular value chain in each cluster areas. This will include households and trader/agri-business surveys as well as use of secondary data sources.

149. AIMS will make extensive use of tablets and online databases to enable direct data collection and entry into the AIMS MIS. Data collection at the household level will be closely linked to the business and financial literacy training, in which all AIMS supported household will be supported to keep household record books (Farm Diaries) of their farm investments and farm business activities. This will be supported by the Business Literacy Facilitators who will be provided with tablets and smartphones and paid a small fee to gather household production and business data once per season. In addition, all project staff and BLF will be encouraged to

use social media tools, to improve communication and information haring within the project and among VC stakeholders.

150. As a majority of M&E data gathering, analysis and use in management decision relates to the activities in the VC clusters and hubs, the majority of M&E activities will be coordinated by the AIMS PMO on behalf of the whole project. The PMO M&E team will support the Component 2 team to define and collect appropriate management information from the VCIF Administrator and RDB concerning the use of the Line of Credit. These data from Component 2 will be integrated into the MIS for the project operated by the PMO.

Learning and knowledge management

151. AIMS is a new generation of IFAD-supported projects dealing with inclusive market development in Cambodia. It is therefore explicitly intended to generate practical knowledge of what works (and what doesn't work), how to apply the successful approaches and to improve the capacity of various stakeholders. Effective and efficient learning, knowledge management and communication are therefore central to AIMS longer term objectives through proper communities of practices, social networks and online systems.

152. Accordingly, AIMS will invest in good quality, evidence-based knowledge management in order to contribute to policy development processes. For example, Component 2 will include and Financial Investment Analyst whose role is to review, analyse and document the actual financial and commercial performance of investments supported under the VCIF and Line of Credit and to share this knowledge and insights widely among the partner financial institutions and other prospective investors from farmers to agri-businesses.

153. AIMS also seeks to strengthen institutional capacity related to specific elements of its approach - for example in policy-based financing for sector development as well as trade research and facilitation. In this context, AIMS will support targeted institutional strengthening activities in specific areas.

154. An effective Knowledge Management and Communications (KMC) strategy will be integrated into the management of AIMS. The KMC Strategy will play a large part in ensuring the project achieves its outcomes. The KMC Strategy will be coordinated by DICO on behalf of the AIMS PMO and will have a full-time KMC Officer attached to DICO.

155. At policy level, the communications strategy will ensure that evidence-based policy analysis reaches key decision makers in digestible form, while also facilitating broad engagement of stakeholders in associated policy dialogue. At the management level, the KMC strategy will ensure efficient sharing of knowledge within the project teams and among the participants of the priority value chains, especially via the MSPs. At the implementation level, the KMC strategy will assist in building ownership, sharing information and facilitating the change in attitudes and behaviour needed to drive inclusive VC growth.

D. Financial management, procurement and governance

FM Risk Assessment and FM Capacity Assessment

Summary of Risk Assessment

156. During design, a Financial Management (FM) risk assessment has been completed in accordance with CFS guidelines. The assessment has been developed after visiting MEF, MoC-DICO, MAFF, NAA. It builds on the conclusion of the 2015 PEFA just completed by MEF as well as the 2014 Transparency International survey on the perceived level of corruption.

157. Corruption continues to be perceived as a major obstacle to efficient and equitable development. Very low salaries in the public sector increase the possibility of collusive practices

at all levels. Salary incentives to project staff are generally seen as the only way to have projects well implemented.

158. MOC will be the AIMS lead implementing agency and will be in charge for the implementation of component 1 as well as main administrator of AIMS through DICO-PMO. MEF will be the agency in charge for the implementation of component 2. In MOC, financial management and procurement aspects of the project shall be managed by the Department of International Cooperation (DICO) which as per its institutional mandate, is in charge for the administration of all externally funded projects of MoC. In fact DICO, set-up approximately 10 years ago, is organized with all the units relevant for a coherent project's administration. Its structure includes six units: finance, procurement, administration, M&E, communication and implementation. These six units are currently managing 4 projects with Government staff and Advisors. The main one is planned to be completed in 2016. DICO capacity in project administration can complement the implementation and technical capacities of other Directorates of MoC, especially the Directorate Generate of Domestic Trade (DGDT) which shall be in charge for the AIMS implementation. MEF has a long experience in managing financial management and procurement arrangements for externally funded projects, so AIMS-PMO shall rely on these.

159. MEF shall need to closely coordinate with DICO-MoC to ensure efficient funds flow as well as set-up and maintain adequate reporting arrangements. implementation arrangements within MoC shall need to ensure that different teams of MoC operate smoothly together so that the best skills and capacities from within MOC are made available to support the successful implementation of AIMS.

160. Based on the combination of inherent risks with control risks, explained in detail in the following paragraphs, the overall risk rating assigned at this stage is **high** before any mitigation measures are put in place; it decreases to **medium** with the application of basic FM practices. Further analysis, especially in the control area, will need to be performed during the initial implementation phase. Risk mitigation measures are specifically described in the subsequent pages; the implementation of some of these may be considered as condition precedent to withdrawal.

Financial management capacity of MEF and MoC-DICO

161. MEF is the strongest ministry in Cambodia in terms of financial management; it is the standard setter, the borrower representative in most of externally funded financing agreements and member of boards of international organizations representing Cambodia. No major issue is foreseen as MEF LPA for AIMS from a financial management point of view. Some challenges in the AIMS organizational arrangements may arise in the initial project implementation period. The set-up of the MEF-PMO, its operationalisation for the implementation of component 2 as well as Lead Agency, its relationship with MoC (both DICO and DGDT) may affect smooth start of the projects.

162. MOC is in charge of business development and agriculture marketing in the RGC framework.The MoC-DICO was created in 2007 within the General Department of International Trade with the specific mandate of managing projects and programs financed by international partners. The office has been organized following a program based approach, i.e. when new projects are approved, no specific project implementation units are created but the existing ones are reinforced with staff and advisors as necessary.

163. All the projects part of the portfolio are managed at central level in the MoC Headquarters; However, MoC has provincial offices which include administration/finance staff.

164. DICO coordination with other departments of MoC is ensured through the monthly meetings of the "MoC Implementation Committee"; that is the venue where potential issues are mitigated as some donors prefer to work with other departments of MoC and other departments are as well keen to take on additional charges.

Control risks

165. Overall, AIMS will be operating in a rather high inherent risk environment due to weak public sector financial management systems as outlined in the PEFA analysis. The proposed financial management arrangements for the project incorporate measures intended to reduce such risks to acceptable levels and ensure that (i) the project funds are used for intended purposes in an efficient and effective way, (ii) reliable and timely financial reports are prepared, and (iii) project assets and resources are safeguarded from unauthorized or wasteful use.

Table 4: Summary of FM risks at design and mitigating actions

After mitigation, the overall project fiduciary risk decreases from **High to Medium.**

	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
Inherent Risk			
1. TI Index Index: **21** in 2014	**H** (**ranking 156** out of 175 countries)	-	**H**
2. RSP Score	**M** Score: **3.86** (2015)[14]	-	**M**
Control Risks			
1. Organization and Staffing	**M**	• Adequate staffing of AIMS PMO with clear JD and accountability lines • Contracting Technical Advisers at DICO (FM and Procurement) • Comprehensive, user-friendly PIM • Coordination between MEF and MoC	**L**
2. Budgeting	**M**	• Use of unified AWPB across the Project • Coding of activities for ease of tracking	**M**
3. Funds flow and Disbursement Arrangements	**H**	• Sound, rigorous cash flow planning • Rules for replenishment of project accounts	**M**
4. Internal Controls	**M**	• Segregation of fiduciary-sensitive duties • Periodic reconciliation of bank accounts • Restricting access to accounting files and documents • Periodic count of inventories and fixed assets	**M**
5. Accounting Systems, Policies & Procedures	**H**	• Use of same accounting software across the project. New software at DICO • Back-up of accounting records • Use of registry of fixed assets • Training of project accountants and delivery of back-stopping	**M**
6. Reporting and monitoring	**M**	• PIM to detail reporting and monitoring requirements and rules • Accounting to generate automated, consolidated financial reports and smart SOEs	**M**
7. Internal Audit	**H**	• Appointment of an internal auditor company for annual reviews • Project management to act on internal audit findings and recommendations	**M**
8. External Audit	**M**	• Appointment of an external auditor on the basis of TOR agreeable to IFAD	**L**

[14] http://www.ifad.org/operations/pbas/

	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
Project Fiduciary Risk @ Design	**H**		**M**

AIMS Financial Management and Disbursement arrangements

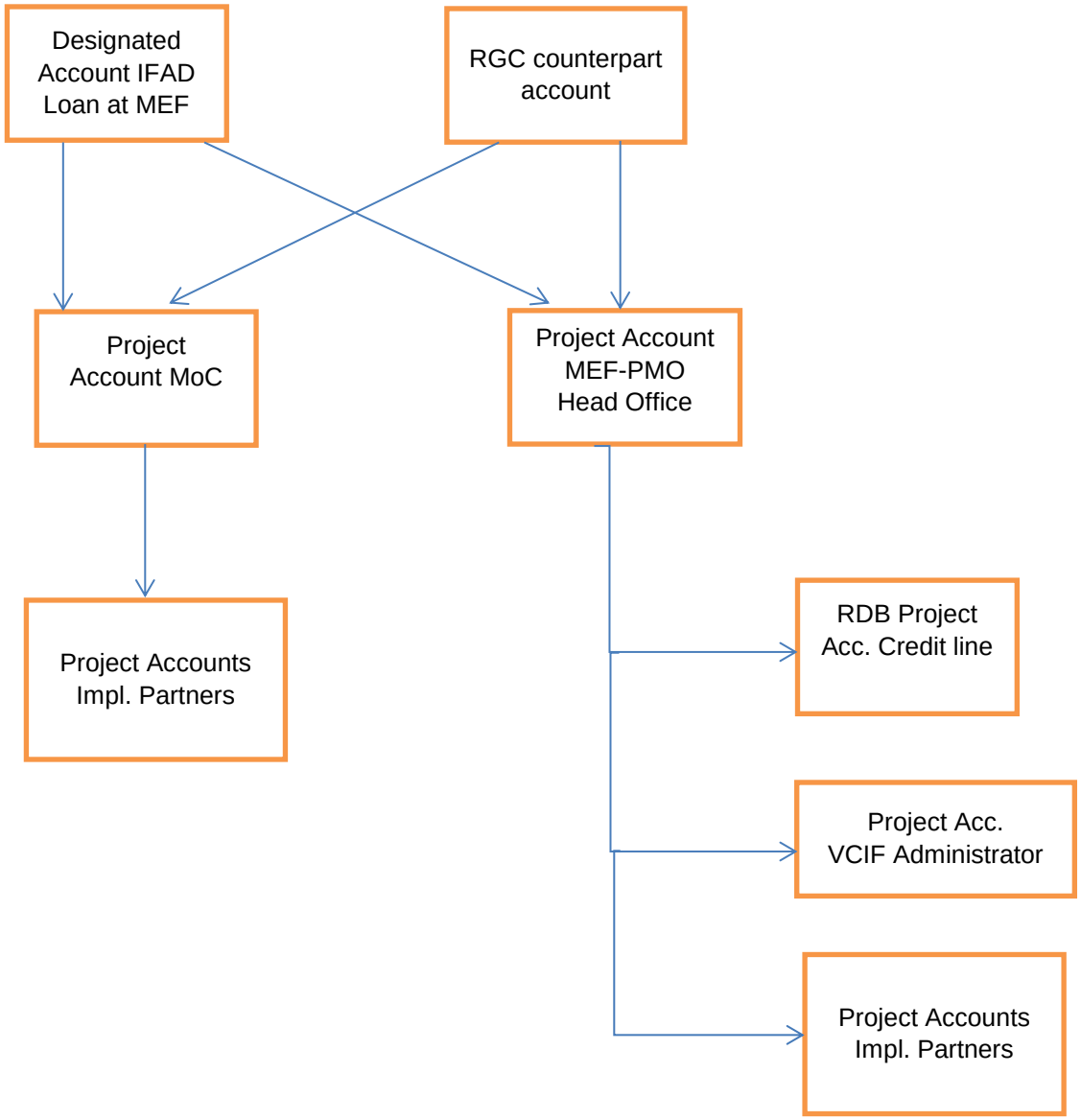
166. Given AIMS implementation arrangements which foresee the set-up of a PMO in MOC for overall coordination and implementation of component 1 and MEF responsible for the implementation of component 2, financial management arrangements shall consider the specificities of the two implementing agencies.

167. Budgeting. In case DICO of MoC shall coordinate the annual exercise for budget preparation. Procedures currently used for the preparation of other project budget shall be applied. The form would be a “Result based activity budget”. Basically, with this form of budget the budget formulation revolves around a set of predefined objectives and results; the results expected require resources for their implementation; implementation is monitored through performance indicators. MEF-PMO shall transmit it’s budget proposal for consolidation purposes. For other implementation partners at central and provincial level, relevant input shall be considered for the finalization of the annual plan. The AWPB will be subject to the approval of the Project Steering Committee and submitted to IFAD for non-objection at least 2 months before the start of the fiscal year. Once approved, the annual budget shall be input in the budget module of the accounting software to allow systematic management and monitoring of it.

168. Disbursement arrangements and Flow of Funds. MEF shall open and maintain one Designated Accounts in USD in the National Bank of Cambodia to receive the IFAD Loan proceeds from the Loan Account maintained by IFAD (IFAD DA) and one Account in USD to receive and manage the Government Counterpart Funds (RGC Counterpart DA) for the project. MoC shall open a project bank account to for the implementation of component 1 and MEF-PMO shall open a project bank account for the implementation of coordination activities as well as implementation of component 2. Transfer from the IFAD DA and the RGC Counterpart DA to MEF-PMO shall be managed by DICO. All project bank accounts shall be open in banks acceptable to RgC and IFAD.

169. Designated accounts shall be managed using the Revolving Fund methodology; IFAD shall advance funds from the Loan Account to the Designated Account based on an approved annual work plan and budget (AWPB) and cash flow projection for six months planned activities. The release of subsequent advances shall be based on the justification of 75% of the last advance and 100% of all preceding advances. MEF shall transfer the Government counterpart funds to the Counterpart Funds Account based on the same approved AWPB on a six monthly basis. Accordingly, the flow of funds shall be as per the diagram below.

Figure 8: Fund flow



170. AIMS PMO (DICO) shall submit withdrawal applications (WAs) on a quarterly basis justifying the advances received based on expenditures reports. Other WAs shall be submitted to IFAD to request further advances, based on the approved AWPB. Such withdrawal applications shall be prepared in accordance with IFAD requirements with SOEs thresholds fixed at USD 50 000 for all cost categories. All expenditures above the established thresholds shall be accompanied by related supporting documentation, as well as all expenditures of every amount related to contracts of value exceeding USD 50 000. The AIMS PMO (DICO) shall prepare and submit the withdrawal application to IFAD on a timely basis within 15 days after the end of each quarter starting from the first quarter after the first disbursement is made or when the required amount is minimum USD 2million.

171. **Internal controls.** Procedures and record maintenance at all level will be properly documented in the PIM and consistently applied. The PIM shall include specific provisions regulating the setting up of internal controls, effective monitoring and review of transactions, accounting

software requirements and include all other Financial Management practices with guidance notes. FM Advisors will play an important role in the overall process. A system of joint signatory for operating the bank accounts or appropriate authorization processes shall have to be introduced. Detailed procedures for adequate recording, management and safeguard of project fixed assets shall be disclosed in the PIM.

172. **Accounting systems, policies, procedures and financial reporting**. DICO-PMO shall procure an accounting software which will be customised to generate financial reports for RGC and for IFAD respecting specific reporting requirements. The customisation will be in such a way to be able to consolidate MOC and MEF transactions, disclose funds use by component, sub-component, cost category and each of the funding sources to be collated through the software. Customization will also include reference to the RGC's Chart of Account (COA). Budgetary control at activity level to be incorporated. The accounting software has to be customised to generate required financial statements and other reports, including the so called "smart SOEs". The current accounting software used in MoC DICO, which became obsolete, shall need to be substituted with a new one. The overall accounting of AIMS will be done through a computerised accounting software at all levels. AIMS-PMO-MEF, using its existing accounting and reporting facility, will transmit monthly financial reports to DICO-PMU for consolidation. Other implementing agencies involved in AIMS shall install/use an accounting software, submit Monthly Financial Progress Reports to the DICO-PMO electronically. DICO-PMO will consolidate data received and will be the entry contact point with IFAD. DICO-PMO will prepare annual consolidated financial statements including data provided by other implementing agencies. DICO-PMO, AIMS-PMO-MEF and Implementing Agencies shall apply cash basis accounting principles in accordance with the updated Standard Operating Procedures (SOP) for externally financed projects/programmes in Cambodia, issued by MEF, as per Sub-Decree No. 74 ANK. BK dated 22 May 2012, on the condition that these procedures are adequately adjusted to accommodate any specific financial management requirements of AIMS and IFAD.

173. RDB and the VCIF Administrator financial statements shall provide additional information; this includes rate of utilization of AIMS resources, rate of delinquency on AIMS financed loans, a balance sheet, recognition of financial and non-financial assets and liabilities, an income statement where recognise possible provisions for credit losses, A cash-flow statement, notes accompanying the financial statements with special emphasis to be placed on the analysis of the performance of loans financed with AIMS proceeds, rate of repayment, rate of delinquency, specific information on portfolio at risk.

174. **Internal Audit.** As DICO-PMO and AIMS PMO-MEF will be a part of the respective ministries, these will be subject to the activities of the MOC and MEF Internal Auditor Office. In order to have more specific support, DICO-PMO, on an annual basis will contract a private internal audit firm to perform internal controls review all over the project implementing agencies and AIMS-MEF-PMO, proposes improvements and issue recommendations. Implementation of such recommendations shall be monitored during the following exercise. Main duties to be stipulated in the TORs will include monitoring and review of the financial systems and procedures, their application and adherence to the PIM, support the introduction of administrative efficiencies. It would be a good practice to brief the appointed external auditors on the project components, methods of implementation, monitoring arrangements, etc. so that they could deliver the reports effectively. Reports prepared by the internal audit firm will be submitted to the attention of the Project Steering Committee, NAA and forwarded to IFAD.

175. **External Financial Audit.** Proper set-up of audit TORs will be a key safeguard for all stakeholders. A single private auditor will be hired for the overall annual audit of AIMS (bot MOC and MEF) given that NAA expertise is mainly in compliance audit. Discussions are ongoing with MEF for the use of private firms pre-selected at ministerial level for other externally funded projects in Cambodia. During implementation could be possible to start a dialogue with NAA for

possible inclusion of AIMS in their future program of work, in case it is decided the performance of compliance audits.

176. In case the audit is not performed by MEF preselected firms, the audit firm will be competitively selected through Quality and Cost Based Selection method of procurement with a weighting of 70:30 for quality and cost. The cost of the audit shall be paid from the project proceeds. The firm shall audit the project's consolidated annual financial statements in accordance with International Standards on Auditing complemented by terms of reference (TORs) cleared by IFAD. The auditor shall issue separate opinions covering the financial statements, statements of expenditures, management of designated account and project bank accounts as well as a management letter outlining any internal control weaknesses and recommended remedies. More particularly, the auditor must ascertain that the information included in the annual financial statements are correct, reliable, and present a true and fair description of the project financial position. The management letter will provide an update on the status of implementation of audit recommendations issued in previous years.

177. TORs for possible audit firm preselected by MEF shall be submitted to IFAD for comments and concurrence.

178. RDB and the VCIF Administrator shall submit AIMS audited financial statements to DICO-PMO within four month after the financial year end. In addition, AIMS Auditors shall have direct access to RDB AIMS project records as well VCIF Administrator AIMS project records for verification purposes.

179. The audited financial statements and audit report shall be submitted to IFAD within six months after the end of each fiscal year and by the project closing date. The implementation status of the audit recommendations shall be provided by each institution on a quarterly report to be submitted to the DICO-PMO and forwarded to IFAD.

180. **Taxes.** The proceeds of the IFAD financing may not be used to pay taxes which will be part of the contribution of RGC to the project.. Social security benefits (employee's portion) and income tax (employee deductions) are eligible for IFAD financing.

Procurement

181. The Law on Public Procurement No. NS/RKM/0112/004, which was enacted on 14 January 2012 governs public sector procurement in Cambodia and the procurement under the AIMS shall be carried out in accordance with the updated/revised Standard Operating Procedures (SOP) promulgated under the law on public procurement, for implementing all externally financed/funded projects/programmes. The SOPs primarily detail the procedures, processes and good governance framework and controls as established under the Procurement Manual (PM) volume I and volume II, issued by MEF, as per Sub-Decree 74 ANKBK dated 08 June 2012 and other government rules and procedures would be applied and as long they are consistent with IFAD Procurement Guidelines.

182. The Sector Development Facilities (SDF) Guidelines shall govern the contracting of IFAD proceeds under a Private Public Partnership Framework/ Model unless these resources are used by MOC to procure goods, civil works and consultancy services which would then be governed by the SOPs and the IFAD Procurement Guidelines.

183. The procurement responsibilities would be managed by the Implementing Agencies as designated by the Project, for the overall project and under Component 1 – MoC DICO and under Component 2 –a unit to be identified by MEF with the exception of procurement under the VC Innovation Fund and line of credit to RDB.

184. The Value Chain Innovation Fund under sub-component 2.1 would be governed by the VCIF Fund Agreement with the appointed fund manager and procedures shall be outlined in a VCIF

Administration Guidelines. The Line of Credit to RDB shall be governed by a Memorandum of Agreement, or similar instrument between MEF and RDB.

185. The Project shall include a number of actions to strengthen national procurement capacity of, and mitigate procurement risks. In terms of capacity, the project will include a fulltime Procurement Specialist/Consultant primarily to support MOC DICO during the initial 2 years of the project and then gradually reduced for the remaining periods of the Project. A project level Good Governance Framework will be established, structured around procurement; financial management; disclosure; civil society role; code of ethical conduct; sanctions and project specific elements.

E. Supervision

186. AIMS will be jointly supervised by RGC and IFAD. Formal joint supervision missions will be conducted at least once per financial year with additional implementation support missions mobilized as necessary. At least one additional implementation support mission will be mobilized within the first 6 months of project implementation and at least one additional implementation support mission during the second year.

187. After the second year of implementation, an enhanced joint supervision mission will be conducted to evaluate the feasibility of expanding the number of value chains supported by AIMS, paying particular attention to:

(a) readiness of the private sector (business and farmers) to participate in such expansion

(b) capacity of MOC, implementing partners and project teams to expand activities

(c) capacity of public and private agricultural service providers to meet demands from VC actors in expanded VCs.

188. A Mid-Term Review will be jointly conducted by RGC and IFAD around the end of Year 3 of the project, or earlier if required.

189. IFAD's participation in the joint supervision of AIMS will be under its policy of direct supervision, in line with the IFAD Supervision and Implementation Support Policy.

F. Risk identification and mitigation

Table 5: Risks and mitigation

Risk	Mitigation
Ineffective targeting of poorer smallholders	• Ensure rigorous and objective initial value chain assessment and selection process. • Process to ensure perspectives of farmers are considered during the value chain prioritization and intervention strategy design • Farmers organization play a central role in project implementation - as active participants of the Hub teams and also sitting on the Steering Committee and Hub Investment Committees and Central Investment Committee.
Lack of credible market opportunities in which smallholder can profitably compete limits the scale of impact	• Selection of a portfolio of five initial flagship products with scope to increase number later that have been screened for confirmed market demand and smallholder profitability. • Products target both domestic and export markets, given some diversity and reducing concentration risks. • Staged "pipeline" approach to investing in value chains, enabling smaller initial pilot investments in a wider range of promising VCs as well as larger investments in those VC which have proven potential allowing more efficient allocation of resources where they are most likely to achieve impacts. This allows new promising VCs to be included in the portfolio as project implementation capacity develops.
Unfamiliar approach to market oriented agriculture development will slow project delivery and reduce impacts	• Provide intensive and sustained technical assistance, especially during first 3 years. • Phasing-in of value chain activities • Multi-disciplinary team drawing on previous experience from around the region but adapted to the Cambodian setting. • Work with external services providers with some existing capacity on specific issues e.g. social mobilization
Insufficient flexibility in resource allocation and action plans which must be able to respond to emerging market opportunities and risks in rapidly changing context.	• Ensure managers have good current information on situation in each value chain to allow maximum time to respond, achieved by investing in management information and M&E systems based on current best practice (e.g. DCED Standard). • Attention given to streamline internals processes and make them efficient and timely to increase responsive of planning and resource mobilization. • Performance targets and assessment based on impacts and results not inputs/outputs.
Coordination must be strong between: 1. key national agencies, 2. sub-national and national levels, 3. public and private sectors.	• Project Chaired by MEF to ensure overall coordination. • Core implementation done on a decentralized basis through regional hub office based close to the physical value chains and actors they are working with. Involvement of Chambers of Commerce, Farmers Associations alongside government staff as a single team will greatly assist this coordination. • Multiple stakeholder directly involved in project delivery as members of the regional hub teams and also in project governance via the project Steering Committee

IV. Project costs, financing, benefits and sustainability

A. Project costs

190. Total Project costs including price and physical contingencies, duties and taxes are estimated at USD 61.6 million over the six-year Project implementation period.

191. Of this amount about USD 1.4 million (2.2% of total project costs) represents the foreign exchange component, USD 1.7 million (2.8%) are duties and taxes. Total base costs amount USD 59.4 million, while physical and price contingencies are estimated to add another USD 2.4 million (4.1% of the base costs) to this amount. Investment costs account for 90.7% of the base costs (and recurrent costs for remaining 9.3%). Project investments are organized into three components: (i) Value Chain Development; (ii) Value Chain Financing; and (iii) Project management. The first component consists of three sub-components, being: (i) Value-Chain Facilitation & Brokering; (ii) Market-Oriented Social Mobilizers and; (iii) Sector Investment Facility. The second component comprises two sub-components, being (i) Value Chain Investment Support; and; (ii) Financial Service Partnerships. The third component is made of two sub-components, being: (i) Project management and; (ii) Planning, Monitoring & Evaluation and Knowledge Management. Funds allocated to Project management and coordination[15] amount to about USD 1.1 million equivalent to 1.8% of total project costs.

192. A summary breakdown of the Project costs by component and sub-component is shown in Table 6.

Table 6: Project Costs Summary by Year and by Component (million USD)

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Project Components by Year -- Totals Including Contingencies
(USD '000)

	Totals Including Contingencies						
	2017	2018	2019	2020	2021	2022	Total
A. Value Chain Development							
1. Value Chain Facilitation Brokering and Sector Development Facility	1 413	1 993	3 792	4 455	3 645	1 272	16 570
2. Market-oriented social mobilizers	305	725	1 145	1 155	612	566	4 507
Subtotal	1 718	2 718	4 937	5 610	4 257	1 837	21 077
B. Value Chain Financing	2 071	7 370	11 123	9 404	7 650	133	37 751
C. Project Management (PMU)							
1. Know ledge Management, Planning and M&E	288	326	334	196	178	375	1 697
2. Project coordination	263	178	169	174	138	165	1 088
Subtotal	552	504	503	369	316	541	2 785
Total PROJECT COSTS	4 341	10 592	16 563	15 384	12 223	2 510	61 613

B. Project financing

Project Financing

193. AIMS is to be financed by the RGC, IFAD-loan and Private sector (including beneficiaries and private businesses). IFAD will finance 58.8% (USD 36.3 million) of the Project costs as a loan to the RGC. The government will finance USD 8.7 million, representing 14% of total costs.

Project beneficiaries are expected to contribute USD 8.1 million (13.2%) and private businesses are expected to contribute USD8.6 million (13.9%). The proposed financing plan is summarised

[15] Costs associated with the regional hub offices are not included here as they are included in Component 1 costs.

in Table 7.

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Components by Financiers
(USD '000)

	RGC		IFAD LOAN		Beneficary Contribution		Private Business Co-funding		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Value Chain Development										
1. Value Chain Facilitation Brokering and Sector Development Facility	4 556	27.5	11 740	70.9	273	1.7	-	-	16 570	26.9
2. Market-oriented social mobilizers	2 254	50.0	2 254	50.0	-	-	-	-	4 507	7.3
Subtotal	6 810	32.3	13 994	66.4	273	1.3	-	-	21 077	34.2
B. Value Chain Financing	602	1.6	20 721	54.9	7 843	20.8	8 586	22.7	37 751	61.3
C. Project Management (PMU)										
1. Know ledge Management, Planning and M&E	707	41.6	990	58.4	-	-	-	-	1 697	2.8
2. Project coordination	537	49.3	551	50.7	-	-	-	-	1 088	1.8
Subtotal	1 243	44.6	1 542	55.4	-	-	-	-	2 785	4.5
Total PROJECT COSTS	8 654	14.0	36 257	58.8	8 116	13.2	8 586	13.9	61 613	100.0

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
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Total PROJECT COSTS	8 654	14.0	36 257	58.8	8 116	13.2	8 586	13.9	61 613	100.0

C. Summary benefits and economic analysis

194. AIMS will generate financial and social benefits by promoting investments and activities aimed at introducing improved agricultural practices, commercial farming with higher value crop, and improved post-harvest management in rain-fed and irrigated crop and livestock production. Financial benefits will be in the form of increased financial returns (net incomes) of the HHs targeted by the Project.

195. Social benefits will include a reduction in poverty rates in the areas targeted by the Project. This will be the effect of the increased financial returns for HHs consequent to Project intervention and of improved employment opportunities in the agriculture sector.

196. The economic rationale for AIMS is based on: (i) improved agricultural productivity and reduction of post-harvest losses as a result of the implementation of improved technologies (e.g. intercropping, post-harvest handling & storage, minimum soil disturbance, crop rotation, composting,); (ii) increased cropping intensity and switching to high value crops, varieties and livestock also with drip irrigation for expanding dry-season production periods. With a potential of yields increasing by 50% - 100% when using drip-irrigation, improved production practices and integrated soil fertility measures, improving HH income.

197. **The economic analysis** of the Project indicates that AIMS is robust in economic terms. The overall Economic Internal Rate of Return (EIRR) of the Project is estimated at 31.9% (base case) which is above the opportunity cost of capital in Cambodia. The EIRR is estimated, based on the assumption that 70% of target farmers will adopt the improved technology promoted by the Project and would want to use or expand on drip-irrigation cultivation for relevant crops.

198. The Net Present Value (NPV) is USD 685 million over the 20-year period of analysis, with the benefit stream based on the quantifiable benefits that relate directly to the activities undertaken following implementation of the components. More detail of the Project economic and financial analysis is included in Appendix 10.

D. Sustainability

199. Financial sustainability is at the core of the AIMS approach - which seeks to catalyse profitable private-led investment from farmers and businesses into value chains and into associated private service enterprises for these value chains. If implemented as envisaged, AIMS should lead to a range and depth of different farmers groups, agri-business and other enterprises operating successfully in each value chain and able to meet their own requirements for future growth. There should therefore be little requirement for significant ongoing public sector support.

200. Institutional sustainability for critical value chain facilitation activities is expected to be achieved by building strong and mutually beneficial relationships between farmers, private business and government especially via the multi-stakeholder platforms but also through the AIMS Regional Hub teams which will themselves be made up of representatives of these different stakeholders.

201. Environmental sustainability and climate resilience are particularly important considerations for agriculture in Cambodia given the future expectation of less predictable and at times more intense rainfall. AIMS will therefore need to promote investment in resilient production systems, for example in water efficient technologies for vegetable production. Resilience will also be improved for some farmers through diversification into more resilient crops and livestock that are inherently less vulnerable to unpredictable rains - for example replacing rain fed annual crops with fruit tree crops or investment in semi-intensive chicken raising to help diversify household income away from only rain fed rice.

202. In the specific case of cassava, there are significant long term risks to soil fertility if more sustainable production systems do not become the norm. There are also significant sustainability issues from pests and disease. Therefore, a key focus for AIMS in the cassava VC will be 1) to widely promote the shift to profitable and sustainable production system that are attractive to smallholders to invest in suited to the different agro-ecological zones (AEZs), and ii) market systems to improve availability and use of good quality, healthy, disease free planting materials.

Appendix 1: Country and rural context background

Development and poverty context

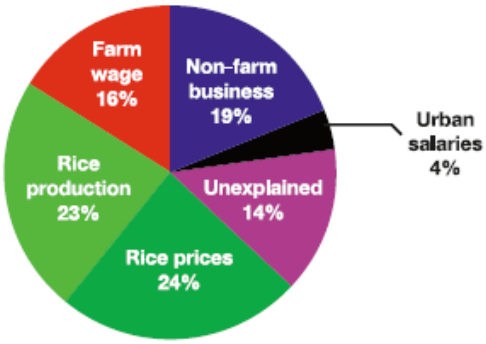
1. **Cambodia has made dramatic progress in reducing poverty over the last decade**. By reducing poverty by more than two thirds from 53.0 percent in 2004 to 17.5% in 2012, Cambodia has surpassed all expectations and easily exceeded the MDG poverty target. More than 4.3 million people left poverty during this period, mostly in rural areas, with the number of poor dropping from almost 7 million in 2004 to almost 2.5 million in 2012. (World Bank, 2015).

2. **Strong economic growth and increasing urbanization and migration** have characterized the economy in recent years. Average GDP growth for 2010-2014 was calculated at close to 7.0 percent. For 2015, MEF estimated that the country's economy grew at 6.9 percent with nominal GDP estimated to be US$19.06 billion in 2015. Along with the economic advancement, urbanisation is on the rise. In 2013 the urban population rose to 21.4 percent up from 19.5 percent in 2008 (ADB 2014); Phnom Penh is home to 53.7 percent of the Cambodian urban population. The swelling urban population is due to migration. Rural-to-urban migration alone was responsible for the expansion of Phnom Penh's population by 70 percent (ADB 2014). Nevertheless, migration occurs not only from rural to urban regions within the country, but also across the border, especially to Thailand where 738,000 Cambodian migrant workers (CD 2015) were hosted. Migration from rural areas presents a challenge for the urban regions and means that agriculture, the backbone of rural economy, will need to be mechanized as farm labour becomes scarcer.

3. The economic growth and development has resulted in an increase in per capita GDP for Cambodians from US$417.0 in 2004 to US$1,228.0 in 2015. This progress means that Cambodia is graduating into the lower-middle-income country group. Once it achieves such a status, its ODA landscape and international trading status will change.

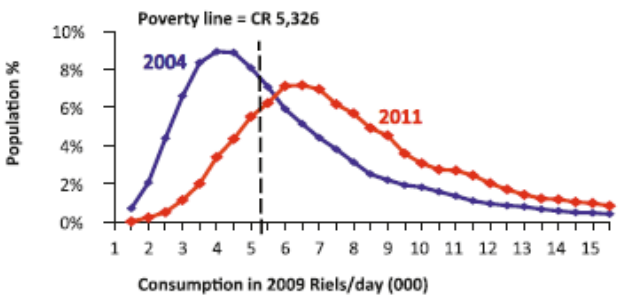
4. **Agriculture growth was both vibrant and pro-poor so was the key driver** of the dramatic reduction in poverty during this period. More than 60 percent of the poverty reduction was attributed to the agriculture sector: higher rice prices stimulated the larger rice production that increased farm wages (World Bank, 2013).

DRIVERS OF POVERTY REDUCTION, CAMBODIA 2004-2011



5. Between 2004-2012, the annual growth in agricultural gross production was 8.7 percent. Agricultural value added grew by 5.3 percent during this period. This exceptional growth, among the highest in the world, was driven by crop production, mainly of paddy rice (annual growth of 9 percent), but also maize (20 percent), cassava (51 percent), sugarcane (22 percent), and vegetables (10 percent). The growth in livestock and fisheries was modest.(World Bank, 2015)

POPULATION SHARES BY CONSUMPTION, CAMBODIA



6. **Yet recent gains in poverty reduction are highly vulnerable, as are the majority of those lifted out of poverty** who remain near-poor. These people are highly vulnerable to slipping back into poverty at the slightest shock. Indeed,

almost all of the gains of the last decade could be reversed by an average loss of KHR 1,200/day (US$0.30) - about the price of two small bottles of water - which would return 3 million near-poor into poverty and return Cambodia's poverty rate to 40 percent (based on 2011 poverty data).(World Bank, 2013).

7. **Further poverty reduction will depend heavily on the success of agriculture for many years** to come, due to its large role in the labour force, value added, and exports, as well as the fact that many farmers are among the poor and vulnerable. Yet the factors that drove this growth, especially higher rice prices and expansion of production area, are unlikely to be able to drive substantial further growth. So continued poverty and rural economic growth will rely on finding new engines to make Cambodia's agriculture bigger and better: bigger in terms of overall agricultural growth better in terms of higher returns, especially returns on labour.

A shift in agriculture is needed to revive growth

8. While agricultural growth in the decade to 2012 was high and sustained, growth has stalled since - with growth of just 0.2% in 2015. It is not clear if this is a temporary drop or the start of a shift to slower growth, but given the importance of rice prices and ever increasing production land in previous growth, these sources of growth may be reaching their limits. And in the case of rice prices, the re-entry of Thailand, the new arrival of Myanmar and the ever increasing Vietnamese production of fragrant rice, are likely to put sustained downward pressure on prices for the coming years.

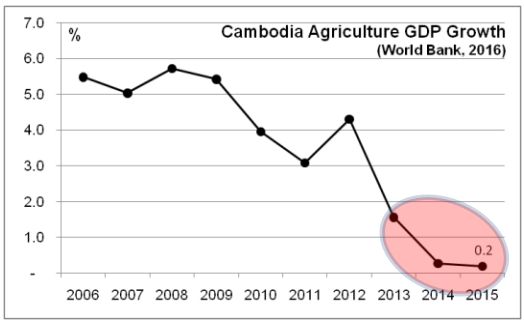


Figure 9: Cambodia Agricultural GDP

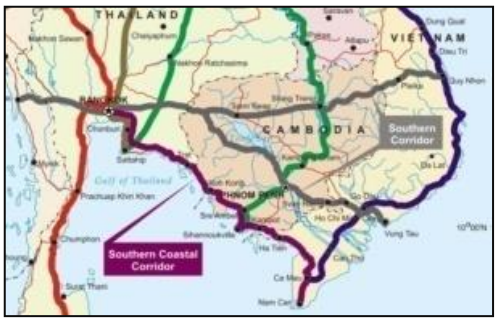
9. Cambodia's agriculture and, in turn, its poverty reduction ambitions therefore needs to find new engines for growth in addition to rice. Thankfully, Cambodia's strategic location in the heart of mainland South East Asia creates significant market opportunities for smallholder producers to serve domestic, SE Asian, Chinese as well as wider export demand. Not only do the growing economies in the large urban centres of central Thailand, southern Vietnam and within Cambodia create strong demand in their own right, but the neighbouring countries are established agricultural export hubs linked to global supply chains, facilitating further opportunities for Cambodia producers and agri-business to link to these establish global supply chains. Cambodia is also in the process of upgrading its own export logistics capacity and infrastructure.

10. An initial list of candidate market opportunities investigated during design included:

- Vegetables
- Chicken
- Premium rice
- Cassava
- Silk
- Longan
- Mango
- Oranges
- Spices/Pepper
- Beef / Cattle
- Cashew
- NTFPs

Better and better connected

11. **Phone ownership is now widespread in rural areas** and still growing, even among poorer households. A recent survey found >92% of Cambodia adults aged 15-65 years in rural areas claimed to own a phone, of which around half were phones capable of sending/receiving Khmer script.(Kimchhoy, et al., 2013). This is a dramatic



change in the last decade, for example in IFAD's former project in Svey Rieng and Prey Veng (RPRP), in 2006 project households had just 6% phone ownership and there was no support for Khmer script on any mobile phone.

12. **Roads to market are improving fast**. Roads networks connecting rural areas to market hubs have improved dramatically in recent year and further improvements can be expected both within Cambodia and in the major connecting roads to neighbouring countries, not least through the Great Mekong Sub-region corridor development initiatives. For example, it is now half a day's drive from Phnom Penh to Ho Chi Minh City, and less than three hours (120km) to reach central Ho Chi Minh from border provinces such as Svey Rieng.

Figure 10: GMS Road corridors

13. Within Cambodia, once remote provinces such as Preah Vihear and Rattanakiri can now be comfortably reached by road in half a day from the main market hub around Phnom Penh and some are equally well connected to cities in neighbouring countries. Similarly, journeys across the north of the country, for example from Preah Vihear to Rattanakiri can now be completed in half a day on good road where as they would routinely take more than 12 hours just five years ago on very poor roads. These developments have happened very recently – with many major sections of the new roads opened only in the last five years. These shortened journey times, less bumpy roads and resulting lower costs have, in a very real sense, increased the connectedness to the market with traders and buyers now able to access areas which were until very recently not economical to trade with.

14. **Rural areas across the country are better physically connected to large and growing regional markets** in central Thailand and southern Vietnam. The improved internal transport links and better connectedness to key market hubs in neighbouring countries is also further extending the area of influence of traders and buyers from neighbouring countries deeper within Cambodia. This can already be seen, for example, in the spread of production of products such as cassava further into the country and not just confined to border locations as before. This will continue to create opportunities and threats to Cambodian farmers as Thailand and Vietnam are both major markets as well as sources of competition. Intense competition from cross-border imports, such as vegetables and pigs, has been a reality for some time. But despite this competition, there is a strong argument that there will be a large net benefit to Cambodia farmers from being better connected to the major market hub of southern Vietnam and central Thailand. The southern regions of Vietnam have a population of 36.4 million people in and around the Ho Chi Minh City, the Mekong Delta and Central Highland regions with average income per capita equivalent to over USD1062 per year which has grown in real terms by an average of 6.5% per year since 2002 (Vietnam Statistical Handbook, 2011). Bangkok and the central region of Thailand have a population of over 21 million that has a Gross National Income per capital equivalent of USD5658. (Thailand Households Social Economic Survey Tabulated Tables, 2007)(Data Bank (online), 2012). This compares to Cambodia population of 14.3 million with a GNI per capita equivalent to USD830 in 2011(Data Bank (online), 2012).

Agriculture in Cambodia

15. Although Cambodia's economy has undergone a significant structural change, agriculture continues to play an important role in economic development and food security and nutrition. The share of the agriculture in the economy, albeit declining, stood above 25-percent point during 2004-2014 (Figure 11). Its annual growth, during this period, averaged 5.4 percent though has stalled since 2012. The sector

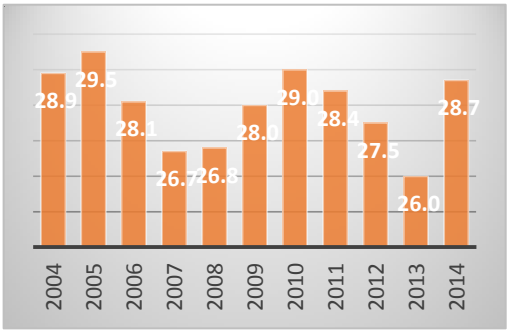


Figure 11: Agriculture share in GDP 2004-2014 (MEF, 2015)

employs 62 percent of the country's workforce. It comprises crops sub-sector (54.20%), fisheries (26.45%), livestock (13.86%) and forestry (5.49%).

16. Cambodian agriculture is transitioning from a traditional, subsistence farming sector to a modern farming sector as evidenced by the increased use of modern agricultural techniques, technologies and inputs, while farm labourers have migrated to urban centres and across borders for high-paying employment opportunities in non-agricultural sectors. Access by farmers to agricultural extension services and inputs such as fertilizers and improved seeds is better. According to CAC[16] (2015), 27 percent of farm households used government's agricultural extension services and 11.5 percent, respectively, used private company agricultural extension services and NGO agricultural extension services in 2014. Between 2007 and 2011, there was a steady increase in the number of farmers applying fertilizers to all crops (CDRI 2014).

17. There is a rapid expansion of agricultural machinery underway - since 2008 the number of tractors has doubled, power tillers and harvesters increased three-fold and tenfold, respectively (see Table 7). Mechanized agricultural land has been expanded from 0.50 million ha in 2003 to 2.0 million ha in 2012. Ratio of draft animals to agricultural machines declined from 73.57 in 2009 to 25.13 in 2013. Now, therefore, cattle and buffaloes are mainly kept for meat markets.

Table 7: Select agricultural machines

Year	Harvester	Thresher	Tractor	Power tiller
2004	-	6,220	3,857	20,279
2005	-	7,338	4,166	26,504
2006	325	7,795	4,247	29,706
2007	395	8,036	4,475	34,639
2008	430	8,237	4,611	38,912
2009	836	13,798	5,495	53,220
2010	947	14,390	6,200	66,548
2011	1,548	15,210	6,786	77,421
2012	4,820	16,146	8,961	128,806
2013	4,580	17,542	9,467	151,701

(Data source: Department of Agricultural Machinery 2014)

18. However, Cambodia's electricity tariffs are still among the highest in ASEAN. In rural areas, electricity costs are even higher due to factors such as limited capacity of electricity suppliers, a lack of economies of scale, fuel transportation costs and high risk premium for rural consumers. High energy costs is one of the key obstacles to achieving the Royal Government of Cambodia's (RGC) target for increased in-country processing of agricultural commodities.

19. Increasing mechanisation of agriculture is leading to an increased use of energy in agriculture. Mechanical traction, water pumping, post-harvest processing and transport overwhelmingly rely on diesel engines which are often old, inefficient and volatile due to fluctuating fossil fuel prices. Lack of affordable energy for pumping water inhibits agricultural production and increases vulnerability to drought. It is also a major constraint to local post-harvest processing activities. The National Strategic Development Plan (NSDP) sets the target that all Cambodian villages will have access to electricity (including off-grid supplies) by 2020.

[16]Cambodia Agricultural Census of National Institute of Statistics of Ministry of Planning.

Business in Cambodia

20. One of the key findings of the recent Cambodia Investment Climate Assessment is that there is a “missing middle” in the composition of Cambodian companies, especially those involved in exports, compared with countries at the same level of Gross Domestic Product (GDP). The existence of a missing middle is likely to be associated with a costly business environment that favours large businesses and encourages small firms to remain small and informal in order to remain hidden from the regulatory environment.(World Bank, 2014)

21. The Investment Climate Assessment identified 6 factors that were reported as "major or severe" constraints by at least 20% of all firms in Cambodia (registered and unregistered):(World Bank, 2014)

Factor (in order of severity)	**Severity** (% of all firms reporting as "major or severe constraint")
1. Electricity 2. Macro-economic uncertainty	>40% of firms
3. Corruption	>30% of firms
4. Transportation 5. Anti-competitive informal practices 6. Cost of financing	>20% of firms

22. The World Bank's recent study on SME agribusiness finance highlighted that "constraints related to the institutional underpinnings of the business environment are viewed as either major or severe. Anticompetitive environment, regulatory issues and corrupt practices are placed far ahead of important business needs such as access to finance, access to land, and skills. These perceptions are fairly robust across all types of businesses (for example, formal, informal, small, micro, etc.) and all sectors including agricultural processing." (Eliste, 2013)

23. The level of informality in Cambodia's businesses is still high. Informal firms are perceived to have a price advantage over formal firms and face fewer regulatory obstacles in conducting their activities. This competitive edge appears to prevent formal firms from operating on a level playing field. The persistence of these constraints over several ICA surveys indicates that they are deeply embedded in the local business culture. (World Bank, 2014)

24. While the level of informality is widely accepted to be a response to the level of anti-competitive practice, informal payments and corruption informality also has costs, most notably in increased difficulty in accessing finance as well as meeting other commercial requirements for serving more formalized markets and customers, such as export customers.

25. This profile of a "missing middle" and high degree of informality among smaller enterprises is equally true for the agricultural sector, and so the AIMS project will need to have mechanisms that will allow it both to work with the relatively few medium and large agri-businesses that are active in the priority value chains as well as having other mechanisms to engage with smaller and less formal enterprises that are the large majority in the agri-sector in Cambodia.

Access to finance in agriculture

26. There is a mixed situation in terms of access and use of financial services for those engaged in agricultural value chains. Smallholders are increasingly well served, thanks to the MFI revolution in Cambodia over the last 2 decades though there is still a shortage of well designed agricultural finance products and service being offered by most MFIs. Similarly, the relatively small number of larger, formal businesses working in the sector also appear to have relatively good access to finance, especially in the context of the relatively high liquidity in the banking sector in recent years. In contrast to the relatively good and improving situation for smallholders and larger firms, the large number of small, less formal enterprises in agriculture appear to

have much more limited access to finance and mainstream SME financial services. So, as with the business context itself, there is also a "missing middle" in agriculture finance.

27. The overall enabling environment for the financial sector continues to improve as well. One important aspect has been that since 2012, the Cambodia Credit Bureau has begun operating to improve access to credit information. CBC was officially launched on March 19, 2012, and aims to promote financial stability in Cambodia by providing data to help with controlling credit risk, preventing fraud and improving the financial prospects of its clients. CBC is a joint venture between the Association of Banks Cambodia (with a stake of 30 percent), the Cambodia Microfinance Association (10 percent) and Veda Advantage Cambodia Holding Pte Limited (49 percent). Within just its second year of operation it was processing around two million credit reports annually.

Smallholder finance

28. There is now widespread access to general financial services throughout the country, especially basic savings and credit, and it is still growing fast. The improvements in rural access to finance over the last decade has been as impressive as the improvements in communications. In a country with around three million households, of which around 2 million in rural areas, there are now approximately 2.3 million active borrowers with USD5 billion of loans and 2.8 million savers served (Dec 2015) by registered MFIs plus ACLEDA (a former MFI, now commercial bank) covering all provinces(Microfinance Information Exchange, 2015).

29. There is also substantial depth to the market with 9 financial services providers (FSPs) having at least 90,000 borrowers and the largest (ACLEDA - now a commercial bank) having only 17.5% of borrowers. The savings market is more concentrated, but still with six FSPs with at least 120,000 depositors each, although the market leader (ACLEDA) has around 57% share in terms of depositors and is almost four times the size of its nearest rival (Prasac with 15% share).(Microfinance Information Exchange, 2015)

30. Growth in the consumer finance sector remains very strong and shows no signs of slowing. Over the last five years the number of savers has increased at a sustained rate of >25% per year and number of borrowers at >12% per year (mixmarket.org). The lending market is being driven by a broad group of FSPs while the savings market growth is largely being driven by the market leader, ACLEDA.(Microfinance Information Exchange, 2015)

31. A new wave of growth looks imminent - in terms of overall market size, depth of financial inclusion as well as the range of financial products and services being offered. Digital financial services, branchless banking, e-money based services (and similar) are at the heart of this new wave of growth and are expected to facilitate substantially lower transaction costs and greater financial inclusion in rural areas. Leading banks and MFIs are already active in this area: ACLEDA with its service called UNITY; AMK that now claims to have agents in every village; and AMRET that is actively investigating new products). The digital opportunity has also attracted new entrants into the mobile finance segment - currently led by mobile payment service of WING with >1.5 million users (67% rural and 37% women), 2500 agents and around USD4.5 billion in transaction volume in 2014. In early 2015 WING also obtained a specialized banking license from NBC and plans to expands its range of financial products offered (http://www.cgap.org/blog/wing-pushes-digital-finance-frontiers-further-cambodia).

32. While there is already lots of activity in both the conventional and digital consumer finance arena, there appear to be important opportunities to improve the range of specific financial services and products offered to smallholder farmers to meet their farming and non-farming financial needs through both digital and conventional channels. For example, most MFIs current do not yet offer seasonal agricultural finance products with balloon repayments of capital or linked to the cropping cycle. Nor does there yet appear to be a depth of expertise and competency in agricultural lending within many of the leading MFI to match their commercial ambition in the sector. It is notable that the Consultative Group to Assist the Poor (CGAP) has

recently initiated work in this field in Cambodia with AMRET - one of the leading MFIs.(Mattern, et al., 2015). This shortage of smallholder agri-finance products means that smallholder use of credit to invest in upgrading their farming is still well below its potential land there are likely to be opportunities for AIMS to partner with select MFIs to accelerate their expansion in the smallholder agri-finance market.

Agri-business finance

33. The commercial bank sectors is dominated by four commercial banks– Acleda, Canadia, ANZ Royal and Cambodia Public Bank – which control half of all banking assets, about two-thirds of all deposits and loans, and 75 percent of the branch network. In total there are 35 local and foreign-owned commercial banks and 12 specialised banks with total assets of USD16.5 billion. The sector includes leading local and international banks and so there is substantial expertise in the commercial banking sector for lending to agriculture, where they choose to do so.

34. At the aggregate level, the lending to agri-businesses has expanded significantly in the last 5 years. Overall commercial bank lending to agriculture increased from US$400 million in 2010 to US$970 million in 2014.

35. However the picture is very uneven. The main beneficiary of this lending expansion was the rice sector, and lending to businesses in other agri-industries remained relatively limited. Consistent policy and government support delivered through its rice export strategy encouraged this lending expansion and investment in rice milling. As a result, milling capacity increased more than seven fold from 2009 to 2013, and similarly, milled rice exports increased from an annual average of about 6,000 tons before 2008, to 51,000 tons in 2010 and reached 538,000 tons in 2015 (an increase of 39 percent on 2014). With relatively few bankable clients in the agribusiness sector, these formal and larger rice milling firms suited the banks' lending profile and their appetite to expand agricultural lending to balance their overall lending portfolios. However it is also note that many of the leading rice millers have subsequently run into financial difficulties, with some now bankrupt and ceased trading.

36. In contrast, lending to small enterprises in non-rice parts of the agriculture sector, has been constrained by the high degree of informality with many micro-, small and medium enterprises (MSMEs) unable to meet the prudent or collateral requirements of the banks and unable to show clear financial records, business plans or ownership documents among other things.

37. For MSMEs, informality within the agri-business sector is a major constraint to greater access to finance. For many enterprises, the perceived benefits of informality outweigh the benefits of greater formality (such as access to finance). (Eliste, 2013) The drivers of informality are complex but this is a significant issue that must be considered in the design as it is among the most significant barriers to greater investment in agri-business.

38. In contrast to the situation with the MFI sector, given the existing competencies in the commercial bank sectors and the issues of informality in agri-businesses, there is likely to be relatively limited scope for a small project such as AIMS to address these major constraints directly. However, there may be significant scope for indirect impacts through a co-ordinated and integrated approach to the development of the whole supply chain in high potential value chains, which is likely to substantial reduce the perceived commercial risks of agri-business investment and raise profitability thus making agri-businesses in these value chains increasingly attractive as clients for the commercial banks.

Loan Guarantee Funds

39. In order to deepen lending to the agri-business sector, loan guarantee funds (LGF) have been tried in recent years. The main LGFs that have been in operation in Cambodia were:

    (a) Ministry of Economy and Finance's Partial Credit Guarantee Scheme for Rice Millers (USD26 million)This was the first LGF implemented by the government and it was

designed prudently in order to avoid poor selection of clients leading to large losses and decapitalization of the LGF. It was designed to cover short term loans to rice-millers, excluding overdrafts and address some of the perceived issues in the design of the previous WB/IFC LGF. Unfortunately, no banks applied for coverage, which led the government to close the scheme in February, 2014. Foreign banks did not apply because of the government's low credit rating disqualified them from partnering with the LGF.

(b) World Bank/IFC's Risk sharing facility for agribusiness (USD 5 million) - This Facility could guarantee short, medium and long term loans to agribusinesses, for working capital or investment. It had difficulties attracting financial institutions and only ANZ Royal Bank applied, but made little use of the fund. Communication problems combined with a disagreement on the terms and conditions leading to the payment of claims led the Bank to lose confidence and stop using the facility. IFC cancelled the facility in 2014 after three years of operation and blamed high liquidity in the banking sector at the time (increasing competition for agri-lending and reduced margins - from about 4 percent in mid-2011 to 2 percent in early 2013 compared to about 2.5 percent of facility fees); perceived complexity and lack of understanding of the LGF scheme by other banks and MFIs; and high levels of informality in the agri-business sector making credit risk hard to assess for participating banks.

40. No specialized guarantee institution exists in Cambodia. In order to set up a sustainable guarantee mechanism it is indispensable to entrust it to a specialized financial institution that develops specific procedures, internal rules and skills, and has the target of making the guarantee mechanism sustainable as well as sufficient autonomy to be able to adapt its governance structure according to needs. The Cambodian experience confirms this overall observation[17]. LGFs in Cambodia were generally targeted at the largest agribusiness segment of Cambodia – rice milling. Monitoring and initiating guarantees is staff-intensive for the small sized loans involved in AIMS, which would make them difficult to price properly and a costly alternative to other proposed activities in a financial industry, such as Cambodia.

41. It is also likely that LGFs do not address the key barriers of access to finance for smallholders and rural MSME entrepreneurs. In many cases, the main constraint at the lender level that blocks access to credit is the lack of relevant products, trained staff and an outreach strategy. Plus, the financial institution must have a strategic interest in lending to farmers and micro- and small-enterprises. ALGF alone will not be sufficient to encourage a financial institution to increase lending wither to larger agribusiness nor to smallholders and MSME and so is likely to be of little relevance to a project such as AIMS at the current time.

Support Services to smallholders and agri-businesses

42. There are a wide range of promising initiatives around the country seeking to deliver better, faster and cheaper technical and value added services to farmers and smallholder producers. These include the public sector, through PPPs to largely private sector initiatives;

(a) Public sector - ASPIRE, BFP, EU programme of livestock and fisheries, OVOP

(b) PPP

(i) iDE's Farm business advisors network and Lhors Thmey and various NGOs initiatives

(ii) CAVAC - especially with fertilizer and pesticide suppliers but also seed suppliers for vegetables and has been working with more than a dozen private businesses.

(c) Private sector

(d) Private animal health worker network continues to grow and mature

[17] Horus financial Services (2014). Development of a Credit System Dedicated to Farmer Organisations

(i) a growing number of private service providers, not just input suppliers, offering value added services to farmers .e.g. Asea Agri Group (Cambodia) Co. Ltd

Other development projects of note

43. In addition to the important investments in improving service delivery to smallholders through the IFAD-support ASPIRE and PADEE project, two forthcoming investment projects that are likely to be complimentary parallel investments to AIMS include:

(a) RGC's own 3 year, USD20 million self-financed "Boosting Food Production Project" expected to start in 2016 focusing on areas such as rice seed and increased vegetable production among other areas. MAFF GDA are expected to take a leading role in implementation and, as the name indicates, the focus is expected to be on production issues for a small number of key food crops. The project concept has been approved and a detailed designed is now being prepared, with MEF also a key driver of the process.

(b) ADB's new USD40m agricultural value chains project, which is being design over H1 2016. While this project is intended to support value chains, the expected main investments will be in hardware, infrastructure (irrigation, roads) in support of a number of priority value chains and focussed in a small number of province. While the project is in the early stages of design and the PPTA recently mobilized, candidate value chains include. rice, mango, pepper, maize, longan, cassava. Candidate provinces include:: Takeo, Kampot, Kampong Chham, Tbong Khamon (formerly part of Kampong Chham)

44. Other forthcoming, existing and recent projects which may also have some relevance include; EU's fisheries and livestock improvement programme with MAFF; USAID's HARVEST Phase 2; the Australian financed CAVAC (especially in terms of working with the private sector and agri-support market development).

Appendix 2: Poverty, targeting and gender

A. Poverty Lines and Dynamics

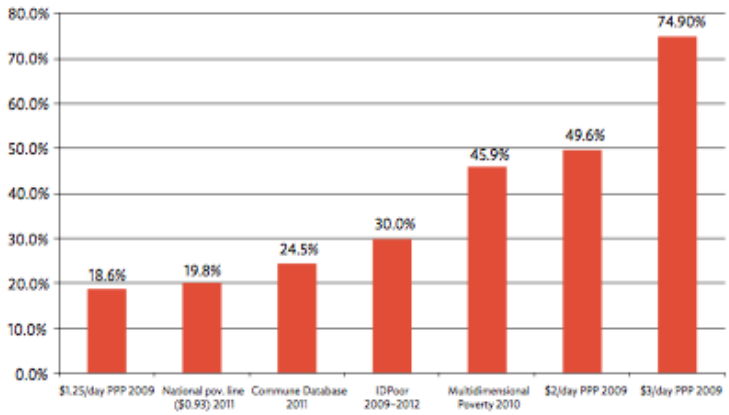
1. **Income poverty**. Cambodia has made great progress on overall poverty reduction. **Growth has been fast leading to a rapid decline in overall poverty as measured through consumption using the Cambodian Socio-Economic Survey (CSES). New official poverty lines introduced in 2013 show that the poverty rate fell sharply from 47.8% in 2007 to 22.9% in 2009, 19.8% in 2011, and 18.9% in 2012.**From 2004 to 2011, most of Cambodia's poverty reduction occurred in rural areas and was particularly rapid from 2007 to 2009, at the height of the food, fuel, and financial crises.

2. Food poverty has declined substantially from 13 percent in 2007 to 3 percent in 2011 and poverty has been decreasing in rural areas: total poverty rate has declined from 58 percent in 2007 to 23 percent in 2011 and food poverty rate from 18 percent to 4 percent in the same reference period (CSES). One of the most important determinants of income poverty is location. **Poverty is overwhelmingly concentrated in rural areas, and the gap appears to be growing. Whereas 89% of poor households lived in rural areas in 2004, this increased to 91% by 2011. Poor households are larger, with 5.6 members; the national average is 4.5.** Consumption is lower in households whose working-age adults have fewer years of education. Average years of education has changed little among poor households, from 3.1 years in 2004 to 3.3 years in 2011, but increased among average households, from 3.9 years in 2004 to 5.1 years in 2011.

3. According to World Bank analysis of data from the Cambodia Socioeconomic Survey (CSES), poverty reduction is largely explained by four factors: (i) increases in the price of rice; (ii) increased rice production; (iii) growth in agricultural wages, and; (iv) higher incomes from self-employment in non-agricultural businesses. In the context of high migration rates, cash and in-kind remittances contribute to increased consumption for many rural households, and they also help explain some of the poverty reduction. The picture of welfare improvements in the bottom two quintiles is reinforced by improvements in a wide range of areas related to service delivery and human development outcomes. Gains were most notable in education, health, agricultural production and nutrition. Physical access to public services improved, as measured in terms of average distances to the nearest health centre or school; this, combined with an improved road network and rising real incomes, helps explain improving rates of school enrolment and health-seeking behaviour

4. **Whilst income poverty has fallen dramatically, many households are concentrated just above the poverty line and with a large proportion of households concentrated at the bottom of the income distribution the poverty rate is sensitive to where the line is drawn.** Figure 12illustrates the significant differences that arise from the use of different poverty thresholds.

Figure 12: Where to draw the line?



Source: Ministry of Interior (Commune Database), Ministry of Planning (national poverty line), Oxford Policy and Human Development Initiative (multidimensional poverty), World Bank PovCalNet database (international poverty lines).

5. Recent analysis reveals the growing vulnerability of poor households, as well as those just above the poverty line. The rate of poverty reduction is tapering off because the various poverty-reducing factors (e.g., increased production, increased rice prices, higher wages, etc.) benefited the poor who were relatively easy to reach—those people just below the poverty line who have now moved just above it. **The remaining poor are likely to be harder to reach because they suffer from more entrenched or chronic poverty. In addition, as noted by the 2013 World Bank study, those just above the poverty line are vulnerable to falling back into poverty.**

Geographic Distribution of the Poor

6. The northeast provinces generally have higher poverty rates, but low population density means that the number of poor people is lower than other provinces with lower poverty rates and higher population density (e.g., the provinces around Tonle Sap Lake or in the southeastern plains). In terms of percentage of the population, Plateau/Mountains is the poorest zone with a poverty percentage of more than 52%, followed by Tone Sap with 43%, Plains with 32% and the Coastal zone with 27%. In terms of absolute numbers, the picture is different, with 40% of the poor living in the Plains, 37% in Tonle Sap, 16% in Plateau/Mountains and 6% in the Coastal Zone.

Vulnerable Groups

7. **Gender**. Households headed by women comprised 22% of all Cambodian households in 2012. In 2011, the difference in overall income poverty rates in households headed by women versus households headed by men appeared small (22.5% poor vs. 20.1% poor, respectively) (World Bank 2013). Women headed households have smaller land sizes, less access to agricultural technology and credit with a resultant increase in vulnerability to shocks. In general, women headed households are less likely to be seeking livelihoods in commercial agriculture as producers, due to the combination of land, labor and credit constraints. More generally, however, women are acknowledged to play a significant role in agriculture, including in production, harvesting, marketing, financial planning and management. A recent detailed study (Heifer International and Oxfam 2016) found that women and men take joint decisions on household financial allocations and investments whilst women are mainly in overall control of household income and accounting. Each of the project value chains has a fairly uniform division of labor, which usually involves men more involved in the heavy and mechanised tasks and women in the lighter production tasks, as well as in markets and financial management. Men and women both tend to be involved in production groups and cooperatives, both as members and as leaders; appendix x provides more detail.

8. **Youth**[18].Cambodia's youth (aged 15-24 years) comprised 26 per cent of the total population in 2004, while 51 percent were male. Eight-in-10 (83 percent) reside in rural areas, with the densest concentrations in the Plains and Tonle Sap regions, at 43 percent and 28 percent, respectively. Cambodia's 15-24 year-olds comprise about 32.4 per cent of the country's labour force, equally divided between the younger (15-19) and older (20-24) age groups, reflecting the high birth rates of the 1980s and 90s. Literacy rates are 87.9 percent and 78.9 percent for males and females, respectively. Younger adolescents are more likely to be literate than their older counterparts. In 2009, more than 70% of youth were in agriculture; a decline from 83.5 percent in 1999. The single most important issue confronting youth in Cambodia today is employment. **The labour force is increasing by as many as 400,000 per year and the garment, tourism, and construction industries are not growing sufficiently quickly to absorb so many new labour market entrants.** Rural to urban migration, fueled in part by the growing garment industry and the lack of investment in agriculture, has had a profound impact on the fabric of Cambodian society, which many consider negative as it exposes youth to social risk and empties rural areas of labor.

[18]This section draws on and updates UNICEF (2004) Situation Analysis of the Youth in Cambodia.

9. **Indigenous People**. **With an estimated indigenous population of between 100,000 and 200,000 people (depending on the sources used), Cambodia's indigenous minority groups (about 24 different groups in the country) represent around 1.4% of the country's population**. Indigenous minority groups, also known as the Khmer Leou ('upper Khmer') are usually located in pockets in hill and mountain areas of the country. Their poverty situation has similarities with some of the poorest groups in the country and is aggravated by significant difficulties in accessing basic health and education services. Moreover, lack of access to representation in decision-making processes, land alienation and high risks of further loss of rights to land and natural resources all contribute to the vulnerability of these groups. Two of the project value chains are particularly relevant and accessible for indigenous households who are practicing settled agriculture, as will be discussed further.

B. Resources, Livelihood Strategies and Vulnerabilities

10. With agriculture identified as an engine for both growth and poverty reduction in the latest rectangular strategy, this section looks at the key assets of poor smallholders – land, labour and financial resources – and considers the implications for project design.

11. **Land.** Beginning in 1982, he government began shifting toward a market economy and gradually redistributed agricultural land based on household composition. Countrywide, families received an average of 1.4 hectares making the land distribution very equal. Since the redistribution of collective farmland, Cambodia has seen significant socioeconomic changes, including refugee repatriation, urbanization, and economic and population growth, demining of large areas and economic land concessions which have increased the pressure on land. The marketing of land has become increasingly inequitable and many rural households in Cambodia suffer either from landlessness or near landlessness. Insecurity of tenure and an incomplete registration process has further contributed to growing inequity in land distribution.

12. **Labour.** Several points of relevance to the design can be noted about rural labour and strategies for household labour allocation. The first is the growing outmigration from rural areas and increasing dependency ratios – as noted above – due to both migration and the emergence of a demographic transition. **Second, the returns to labour are increasing, daily wages in rural areas more than doubled in 2007–2012, with a particularly sharp increase (57%) in 2007–2008. Income from off-farm self-employment also increased, according to CSES data, one-third of rural households had a nonfarm business in 2009 as either a primary or secondary job.** The World Bank's poverty analysis shows that average per capita income from nonfarm self-employment increased 63% during 2004–2009. Third, migration is an increasingly attractive option for allocation of household labour as remittances contribute to increased consumption for many rural households. The implications for design are that poor households are likely to have limits to the extent to which they can intensify family labour and limits to their capacity to hire labour. The further development and fine-tuning of economic investment models to clarify their suitability for different household asset profiles in different Agro Ecological Zones (AEZ) will be an ongoing process of the Project.

13. **Financial Capital.** The rapid growth of the financial sector and access to micro-finance has further contributed to the substantial growth in household consumption. Recent analysis, especially drawing on differences in poverty lines based on the new national poverty lines established in 2013 and those of the World Bank reveal that 0.25 cents make an enormous difference in the amount of people below the poverty line. In addition, analysts suggest that the decline in income poverty has to be seen in the context of increasing indebtedness. As poverty measurement is based on household consumption, if a significant share of household consumption is financed by loans, the resulting poverty reduction might not be as robust. According to the 2009 CSES, 46% of households in the poorest consumption quintile, and 42% of households in the next poorest quintile, were in debt, compared to 38% of all households. According to an independent survey in 2009, 58% of all households in three provinces were in

debt.These findings have several design implications: (i) the importance of designing economic interventions that are proven and based on the actual financial capacity of poor households; (ii) the importance of involving financial service providers both to develop loan products that suit agricultural investments and in providing proper assessment of risk and credit-worthiness; (iii) the importance of demonstration for agricultural investment models to protect against risk, and; (iv) the importance of increasing business and financial literacy amongst poor households.

Summary

14. **Agriculture was a major driver lifting rural families out of extreme poverty and there are many ways in which agriculture can further contribute to poverty reduction. Nevertheless, the economic models developed during the project design suggest that the transition from subsistence to commercial agriculture will be challenging for poorer households constrained in their access to land, labour and capital.** The project focus will be on smallholders in general and on those households interchangeably called the 'productive poor' or the 'economically active' and the youth. For the purpose of this design, that term refers to households who will be able to generate economic returns from their participation in project activities. These economic returns are defined as USD 200, per capita per month, which corresponds to just below an unskilled wage rate and is the likely opportunity cost for smallholders.

15. While there are some differences in poverty characteristics across AEZ, producers differ considerably in their production practices and how they relate to market opportunities. Table 8 provides a broad overview of how the target group of 'smallholders and the economically active poor' correlates with the preceding poverty analysis – considering specifically their characteristics and potential as rural producers.

16. The **non-poor smallholders**, not outlined in the table below, have the largest landholdings, have land titles, tend to be closer to economic centres and diversify income sources. Their agricultural production is driven by decisions based on market requirements and intended to maximise the return on farming. They invest in improved production, technology and have established linkages with technical and financial service providers. They also invest in household assets, education and health and are likely to have non-farming sources of income within the family that further protect them against risk. We may guess that this group represents 10% of farming households in the country.

Table 8: Typology of Poor Rural Households in Cambodia

Characteristics, Assets, Resources	Livelihood Strategies	Priority Needs
Poverty ID 1 (12.2% of the population)		
• Small landholdings (will vary with AEZ) not sufficient for subsistence production. • No domestic animals. • High dependency ratio. • Low literacy, numeracy, skills. • Poor housing, limited household assets • Cyclical food insecurity • Vulnerable to shocks (health etc) • High levels of accumulated det.	• Subsistence production with limited/no scope for producing surplus. • Engage in low-return wage labour, both on-farm and as migrants. • Some petty trade in spot-markets • Rely on flora/fauna/fish if possible. • Draw down on household assets • Rely on social safety nets • Petty trade, micro-business with irregular income.	• Labour/employment. • Skill up-grading and vocational support. • Functional literacy. • If they have land, then working capital. • Homestead based solutions. • Improved animal health care/build-up of small ruminants.
Poverty ID 2 (14.9 %)		
• Small landholdings (differs by AEZ) barely sufficient for subsistence. • Limited and sporadic surplus. • Few domestic animals/no management • High dependency ratio. • Basic literacy, few skills • Basic household assets; bike, radio etc. • Periodic food insecurity. • High levels of debt from both formal/informal	• Agricultural production for food security. • Market production limited, based on occasional surplus for local markets. • Risk averse, no adoption of improved technology without project subsidy. • Migration and wage labour. • Livestock serve emergency cash needs. • Petty trade, micro-business with irregular income. • Borrow for both consumption/production.	• Production support services • Finance for working capital • Finance for investment capital. • Business and financial literacy • Support with assessing comparative risks of various agricultural investments. • Risk reducing market linkages. • Accessible, affordable services.
Near poor smallholders (less than 3 USD per day) Estimated 60%		
• Landholdings (differs by AEZ) sufficient for subsistence and some surplus. • Domestic livestock contribute to wealth. • Reasonable dependency ratio. • Functional literacy and some skills. • Household assets may include motorbikes, light agricultural equipment. • Mostly food secure. • Credit from both formal/informal institutions.	• Subsistence secured and periodic surplus production, including for non-local markets. • Benefited from improved rice productivity, but less reliant on agriculture than in past. • Some independent but minimal adoption of improved practices/technologies. • Wage labour, skilled labour, migration. • Experienced market traders. • Invest in household health/education.	• Production support services • Finance for working capital • Finance for investment capital. • Business and financial literacy • Support with assessing comparative risks of various agricultural investments. • Risk reducing market linkages to justify greater investment • Accessible, affordable technical and financial services. • Support in developing business models connected to value chain activities.

C. Lessons on inclusion from the Country Programme

17. The following are key lessons from the COSOP review, as well as some others gained during design deliberations, that have helped to frame the new approach to inclusion.

(a) The changing socio-economic context (as described above) has resulted in declining returns to poverty reduction through agriculture; supporting further poverty reduction will require more commercially oriented interventions.

(b) The central role that market-oriented interventions will play in future growth combined with the diversity of household asset profiles, as well as value chain entry characteristics, requires a more systematic approach to innovation and scaling-up of potential models.

(c) Achieving high levels of inclusion of poor households will require working out value chain potential in different locations for different poverty profiles.

(d) Potential commercial opportunities for poor households will be supported if groups contain more commercially oriented households.

(e) Whilst market oriented agriculture will continue to drive poverty reduction, there is a limit to the gains that can be made for the chronically poor due to their limited assets.

(f) The identification and formation of groups should be linked to the necessity and value of collective action; variations in group formation arising from different value chain, social or economic particularities should be accepted.

(g) The full engagement of the private sector is necessary to ensure the sustainability of development interventions for the poor.

(h) Monitoring and evaluation has been weak in all projects; with recent advances in national poverty profiling, future projects can contribute much more to the tracking of progress on poverty reduction brought by value chain innovations, thereby enabling innovations to be scaled-up.

(i) Group formation has been formulaic across the country portfolio and has not delivered any significant benefit in terms of linking farmers to markets. Group formation is likely to be more effective if they are driven by value chain specific needs to act collectively.

D. Key Elements of the Approach to Inclusion

18. **The target group**. The main project target group is smallholders, both those identified through the ID Poor Classification of the Ministry of Planning and the near poor (defined as households earning less than USD 3.10 (2011 PPP) per capita per day). Given the extensive data available through the ID poor system, and the general legitimacy of the findings, wealth ranking will be used selectively and already directed at establishing the specific constraints for value chain entry. The following are the key methods and principles that will support the identification of the target group:

(a) The cluster identification process will include, amongst other indicators, a review of the poverty data and characteristics for the proposed cluster, based initially on data.

(b) Stakeholder consultations led by the Value Chain Team will review the assets and constraints of poor and non-poor households in a series of discussions as part of the rapid mapping of the cluster.

(c) Wealth ranking will be conducted in select villages to verify the poverty data, collect further information on assets, resources and constraints important to inform the interventions and set locally relevant criteria for identifying the non-poor (see below).

(d) The only instance in which the Project will exclude households in the cluster from participating is in the distribution of matching grants. In this case, a cap will be set to

exclude the non-poor, whilst the Business Literacy Facilitators and the Social Mobilisers will be used to identify poor and non-poor households able and willing to participate; further detail is provided below.

19. The definition of criteria to exclude the non-poor will have to be specific for the value chains as well as the AEZ. Two universal criteria are that they are not commercial farmers and that they are not already using the technologies being proposed as key investments for value chain participation. The household criteria are likely to include the following for the flagship value chains, but as noted, these have to be refined to ensure the simplest, most locally relevant are selected:

(a) Rice: Apart from criteria linked to household assets and livelihood strategies, these households should have less than 3 hectares of land.

(b) Chicken: Exclusion criteria based on household assets and livelihood strategies, as land is not a requirement.

(c) Vegetables: Maximum of half a hectare, not already commercial and not already using technologies proposed by the Project.

(d) Cassava: Maximum of 3 hectares.

20. **Secondary and indirect beneficiaries**. In the long-term, commercial agriculture will depend on increasing the productivity of labour and the creation of agricultural employment opportunities are not expected to be a long-term project benefit. However the Project will support secondary target groups, *inter alia*: agricultural cooperatives; farmer organisations, MSMEs; and cluster of SMES, agribusinesses; service enterprises, and industry associations. These secondary target groups are not necessarily poor. However, most of them can be market makers for smallholders and the poor, and are the driving force of the value chains. They can potentially help smallholder farmers to move beyond subsistence and become commercialized, if an enabling environment is in place and conditions are right.

21. **Project area targeting**. The approach taken to area targeting, and to ensuring that area targeting serves the objective of including the greatest number of poor possible, as commensurate with economic objectives, is different from the standard IFAD approach. The approach has been to work exclusively with government agencies and with area-based targeting of poverty and often applying relatively standardized interventions. Whilst this has meant large numbers of people can be reached, such standardised approaches have prevented significant returns through investing in systemic changes and learning that can support pro-poor market development.

22. The approach taken in the Project is threefold: (i) to use market criteria linked to the selected value chains, correlated with poverty criteria, to determine the location and broad sphere of influence of the Regional Hubs; (ii) to use rapid mapping of market, poverty, value chain stakeholder and AEZ specific criteria to define the clusters for project intervention and (iii) to base inclusion criteria, strategies and caps for exclusion of the wealthy on indicators relevant to the cluster. The last two steps are described further in Section III. Table 9 provides an overview of the poverty characteristics of the Provinces selected as a base for the Regional Hub and the Provinces that will be included in the first phase of project interventions. There are 6 Provinces that the COSOP recommends targeting to ensure “maximum cost-effectiveness by focusing on highly populated Provinces with relatively high poverty rates”; five of these have been included, namely: Battambang, Siem Reap, Kampong Thom, , Takeo and Prey Veng.It should be noted however, that being a value chain project, there is no requirement to stay within these administrative boundaries.

23. Geographical poverty targeting objectives, as Table 9 shows, have been largely met by the selection of areas for the first phase of project interventions and the location of the Regional Hubs. However clearly different poverty lines and methodologies reflect different dimensions of

poverty and therefore estimate different numbers. Important to note is the high percentage of households that have been estimated as being vulnerable to poverty by the multi-dimensional poverty index. Whilst the data is sufficient for broad area targeting, the evident complexity supports the project approach of identifying clusters for project interventions that enable market, poverty and vulnerability criteria to be assessed by project stakeholders and considered against potential local value chain solutions; the steps are described further in Section II, Part A.

Table 9: Poverty in the Project Provinces

	CDB 2012 (%)	ID Poor 2011(%)	MPI % Poor	MPI* % Vulnerable	Amongst 7 poorest **	Population
Hub 1 – Mekong Plains AEZ						
Kandal	14.6	21	38.9	26.3		1,265,280
Kampot	20.4	16	47.7	27.7		585,850
Takeo	19.9	28	54.1	22.2		844,906
Hub 2 – Tonle-Sap AEZ						
Prey Veng	21.9	27	52.4	17		928,694
Kampong Cham	20.4	NA	51.6	17.8		631,409
Kampong Thom	29.1	NA	58.0	19.6	x	631,409
Preah Vihear	37.0	32	71.2***	17.3	x	171,139
Tbong Khmom	20.4	NA	NA	NA		754,000
Stung Treng	36.8	NA	71.2	17.3	x	111,671
Ratana Kiri	36.2	26	71	12.4		150,466
Kratie	32.60	36	59	22.8	x	319,217
Hub 3 – Mountain – Plains AEZ						
Battambang	24.8	34	36.9***	24.5		1,058,174
Pailin	23.9	32	36.9	24.5		70,486
Siem Reap	28.8	31	51.8	24.6	x	896,443
Banteay Meanchey	25.50	26	43.3	23		677,872
Cambodia	**24.05**	**30**	**45**	**21**		

* For an explanation of the MPI see Section 1, Part A

** Seven Provinces identified as the poorest by all methods (MPI, CDB and ID Poor); five of these have been included in the Project.

******* MPIs for Preah Vihear/Stung Treng and Battambang/Pailin estimated together.

24. **Value chain selection**. A central inclusion strategy of the project has been to identify value chains that: (i) have low entry costs for smallholders; (ii) have the potential to involve large numbers of smallholders and youth, working from the market backwards; (iii) enable producers to adopt the new technologies as part of a diversified household livelihood and agricultural production strategy and (iv) do not crowd-out new market entrants and so are open to replication of first mover technology uptake and demonstration; Section C provides further detail.

25. **Value chains with graduated entry-points**. The value chains and the interventions chosen have been selected to enable households to upgrade and improve their activities gradually and as commensurate with their resources and risk profile. Whilst the Project objective is to achieve an economic return per labour of 2000 USD, for reasons outlined above, each value chain has a number of incremental improvements that can be made to stagger the investment and reduce the risk; Section C provides further detail.

26. **The results chain and theory of change**. Central to the approach taken to inclusion is an evidence based, AEZ specific, results chain and theory of change which, for each value chain, shows how the various interventions and activities will work together to lead to desired changes in the market and ultimately to the intended impacts on the smallholders.This results chain will, through the development of economic farm and enterprise models, specify household asset requirements, with the explicit purpose of developing these to be increasingly inclusive. The results chain will be a working and widely used document used, in different forms and with varying complexities, by project staff, value chain stakeholders, private financial institutions and smallholders. The purpose will be to encourage and inform, as well as, where necessary, to highlight limitations and risks for poorer households.

27. The results chain for each of the flagship value chains has been established during the design phase, whilst those for the pilot value chains need further development. The economic analysis and the assumptions on which they are based will support discussions and negotiations amongst MSP participants. In a simplified form, the economic models on which smallholder participation is based will be shared with potential participants and will be explained and promoted by Business Literacy Facilitators.

28. The Social Mobiliser Manager (SMM) in each hub will be responsible for ensuring that information collected from project participants through farm diaries, BLFs and SMs are used to update the results chain, as well as inform the MSPs under the Regional Hubs. The M&E and Knowledge Management Officers in the Regional Hubs will be responsible for ensuring that the information is informed by the ID Poor data, as well as that of the Commune Database to develop insights into the value chains, both on their potential for inclusion, sector specific bottlenecks that may remain and potential linkages that could support greater inclusion. The Knowledge Management Officer will develop information resources that are relevant to the interests and capacities of different stakeholders, including smallholders.

29. The results chain, specific for each value chain, will be a reference point not only for the strategic orientation of the Project, but also for discussion with the RGC and development partners, enabling an evidence based discussion on effective entry points for supporting poverty reduction and economic growth through agriculture. The evidence generated through project investments will be able to inform discussions on the potential of different types of value chain investments in different AEZs, as well as how these opportunities compare with non-agricultural avenues and their suitability and attraction for different demographic profiles.

30. Specific responsibilities for supporting the development of the results chain and inclusion have been mainstreamed throughout the project management structure, as explained further in Part III, Section C.

31. **VCIF Window 1.** The matching grant in Window 1 is intended to support smallholders to invest in production technology and practices by providing small grants to encourage innovation, as well as through the development of value chain services (technical, financial, market access) to reduce the risk of that investment. It is unlikely that many very poor households will be amongst the first movers. The matching grants will be developed as individualised proposals but will be submitted to the Project as a group, simply for the purposes of efficient and timely processing, with a minimum of 10 per commune. The inclusion rationale of the matching grants is the following: as long as the profiles of the first mover households are not significantly different from the other poor and near-poor households, the market linkages created and the demonstration of uptake will make it easier for more risk averse, likely poorer, households to replicate. The main purpose of the MSP is to ensure that the value chain linkages to support replication and absorb extra volumes of produce are established.

32. **Sector specific interventions**. In pro-poor market development initiatives, the choice of entry points for interventions within specific market chains can have a significant impact on the efficiency and impact of the investment. Systemic approaches, if linked to an evidence based

results chain, not only increase the likelihood of lasting changes, but enable and support the inclusion of smallholders if these operate as part of a joined-up plan of action across the various bottlenecks in particular value chains, such as those that impact smallholder production issues and input constraints, as well as market linkages.

33. The Project has identified several areas in which such investments will serve the interests of the project target groups. Whilst these investments are not given directly to smallholders, the indirect benefits are considered significant and worthy of support. The returns to smallholders are secured by eligibility, selection and process criteria to ensure that all standards, including those of maximising inclusion and impact, are addressed. Eligibility and selection criteria, as well as the processes to ensure solid cross-checking and the impartiality of the selection process are secured, are described further in Part III, Part B, whilst full detail is provided in Appendix 4 and the linked Working Paper.

34. **Social mobilisation and group formation**. External service providers, most probably NGOs, will be recruited to support a team of Social Mobilisers (SM) whose mandate it will be to identify project participants that suit the inclusion criteria, mobilise their participation, support their investments and proposals, link them to relevant value chain actors and monitor and evaluate their performance (see terms of reference in annex 1). Whilst inclusion and targeting objectives have been mainstreamed into the terms of reference of all the contracted specialists in the project management structure, it will be the mandate of the social mobilisation structure to represent participant interests and needs in the MSPs and to ensure that the Value Chain Teams and M&E are regularly updated.

35. The Social Mobilisers will be tasked with recruiting voluntary Business Literacy Facilitators (BLFs), who will be trained to provide business and literacy skills to all AIMS participating farmers. Business and financial literacy, as the preceding analysis on debt suggests, is critically needed, important for households to properly assess opportunities and risks and enable them to negotiate their interests in value chain transactions. The BLFs will be nominated by the participating farmers and will be provided with in-depth training and resources to support the business and financial literacy skills of participating farmers. The BLFs will initially be paid by the Project for training sessions and are expected to gain a high level of skill and confidence, contributing increasingly to the management of the groups, supporting the preparation of investment plans and helping with negotiations with traders and buyers on behalf of their group. They will be provided with tablets/mobile devices and will also be responsible for collecting production data from group members. Their activities will be linked to and will support the activities of the local lending officers of the PFIs in sub-component 2.2.

36. The social mobilisation design draws on the successful experience of the HVAP in Nepal in poverty targeting and inclusion, despite operating in a context that is logistically more challenging, as well as with a social context in which there are low literacy levels and marked social and economic hierarchies. The design has also been informed by two of the most successful extension models in Cambodia, namely that of the IDE and the AVSF (see Part I, Section C). Like the HVAP, the approach to group formation will be to mobilise households around a common interest in adopting recommended technologies to upgrade production in the selected value chain for greater returns. The purpose of the groups are: (i) to support households to submit their proposals for matching grants; (ii) to support the business financial literacy of households and (iii) to link them to value chain financial and technical services and market linkages developed by the MSPs.

37. The following are key assumptions and principles of the design for social mobilisation and group formation (the actual process is explained further in Part III, Section A); (i) the social mobilisation process should be sustainable and it is expected that the BLF, as permanent and respected members of their communities, will increasingly take-over and eventually commercialise their services; (ii) the group members themselves, with advice from the SMs, will decide the purpose and functions of their groups; (iii) the BLFs may advise Savings and Loans

to support working capital requirements for VC investments, but this is a group decision and (iv) poorer households will be more able to replicate and benefit from investments if groups are formed around common market interests than around common socio-economic groupings.

38. **Gender**. All of the value chains selected, and particularly chicken and vegetables, have high rates of women's participation. The Project will support women to benefit equally from project interventions through the following steps:

(a) An overall participation rate of 50% amongst project beneficiaries.

(b) An overall participation rate of 30% amongst Social Mobilisers. The option of setting a 50% rate was considered, but given the expected need for mobility (and drawing on the experience and advice of NGOs during the design), 30% is considered more realistic. The Project will ensure that female Social Mobilisers will be appointed to the VCs most likely to have a rate of women participating.

(c) An overall participation rate of 50% amongst Business Literacy Facilitators, although in practice this is expected to be much higher.

(d) The NGOs recruited to support the Project will be expected to have established experience in the principles and practice of gender inclusion.

(e) The mainstreaming of responsibility for gender participation, as part of the overall inclusion strategy, in the terms of reference of the Social Mobilisers, the Value Chain Team specialists in the PMO and the Regional Hubs, the M&E and Knowledge Management positions.

(f) Gender and sex disaggregated MIS, M&E, knowledge products and gender sensitive systems of information dissemination.

(g) The Ministry of Women's Affairs (MOWA) will be a part of the Steering Committee with a mandate to provide overall guidance on Project gender performance, as well as useful linkages and resources to support these.

39. **Youth**. Expectations at design are that project investments will not only create farm-based livelihood strategies for rural youth (16-29) that provide alternatives to migration, but will also increase the demand for agriculture-related skills. It is likely that many Business Literacy Facilitators (BLF) will be recruited from the youth and creating a savings habit and improving financial literacy among rural youth will be important to support their resilience to rapidly changing socio-economic options and environmentally driven risks. The Project will not directly target youth or offer vocational training adapted to their demographic profile, but the rolling cluster-base lines, as well as household diaries and feed-back from the Multi-Stakeholder Platforms (MSPs) will inform the Regional Hubs of both constraints and opportunities in the participation of rural youth. The Social Mobiliser Managers, as part of their general mandate to support inclusion, will be responsible for representing these constraints and opportunities in Regional Hub meetings and exploring whether, within the limits of Project activities, these can be addressed. More generally, project M&E will disaggregate data by age in order to contribute towards the value chain specific development of the results chain as well as sector analysis.

40. **Indigenous people**. The small number of indigenous people and their high concentration in ID 1 households means that explicitly targeting indigenous people would result in a disproportionate use of project resources compared to the expected gains in poverty reduction. The most effective option for involving indigenous peoples in the Project will be through the non-timber forest products (NTFPs), chicken and cassava value chains. The rapid mapping for cluster identification (as described below) will take the distribution of indigenous people and their potential inclusion as one of the variables in the identification of clusters. The two project areas that are likely to have a high percentage of indigenous people are Rattanakiri and Kratie, which both have diverse ethnic groups, all of them poor and marginalised. In Kampot and

Takeo there are large concentrations of Hainan, of Chinese origin; they are not amongst the poor and if they participate in the Project it is anticipated that their role will be as model farmers and upstream value chain actors (and pepper value chain).

41. **Procedural issues and mainstreaming inclusion**. The objective of social and economic inclusion has been mainstreamed into the procedures and management structures of the Project. The results chain for each value chain and the economic models and MSP discussions that inform the results chain will be the basis of project interventions in both Component 1 and Component 2. Whilst the social mobilisation teams will have the mandate to mobilise households, responsibility for the outcomes, in terms of numbers of households from different economic groups who have benefited, is shared throughout the management structure. Mainstreaming is enabled by the following: (i) the common thread of the results chain; (ii) data from the household level diaries; (iii) data from poverty data-sets; (iv) a tablet-based MIS and M&E system embedded with BLFs; (v) the integration and negotiation of VC interests through the MSPs and (vi) the participation of local lending officers and branch staff, who are well placed to understand the opportunities and limitations of financing opportunities in the VC. These factors, as well as the responsibilities assigned through the terms of reference, make it possible for the Project to be very precise about targeting and inclusion and contribute evidence-based lessons for scaling-up and replication.

42. The Regional Hub managers will have the responsibility to fine-tune support strategies if the mobilisation process falls short of meeting inclusion objectives. Part III provides further detail.

E. Smallholders in Project Value Chains

43. The value chains identified for the Project have been put into two groups, as explained in detail in the PDR:

(a) Flagship VCs where there is proven market potential as well as opportunities for competitive, profitable and sustainable smallholder production already demonstrated in Cambodia at a reasonable scale and;

(b) VCs where there is proven market potential and interest from farmers, including smallholders, to expand and improve their production but either (i) only theoretical opportunities for competitive, profitable smallholder production based on experience elsewhere, not yet proven in the Cambodia setting and/or (ii) opportunities subject to improved production systems being technically feasible, financially viable and within reach of the target group.

44. The entry-point opportunities for the flagship value chains have been reviewed and explained in Appendix 4 and the related working papers. For each of the VCs a detailed results chain has been established that lays out the market demand, the sector bottlenecks, the entry-point investment requirements for VC smallholders, the investments required for an economic return and the opportunities for AIMS to support smallholder production and inclusion. The information is sufficient to make good estimates about the accessibility of VCs to different groups of poor households based on the information available on income poverty, land size, availability of labour and opportunity cost of alternative income generating opportunities.

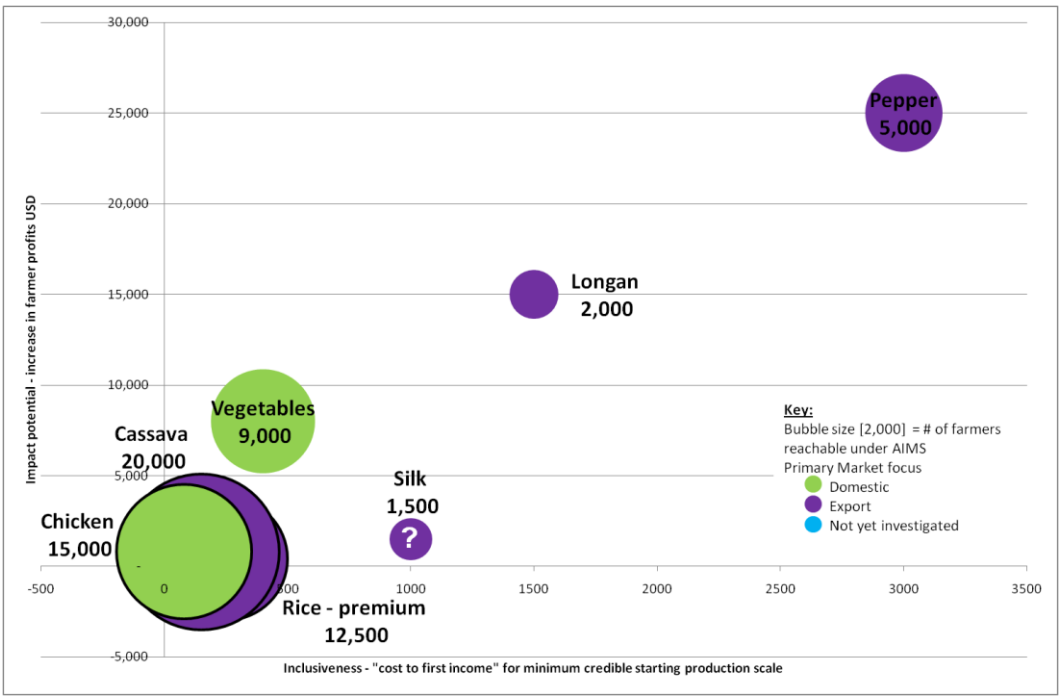
45. In the first 2 years, four flagship value chains have been selected – rice, chicken, vegetables and cassava. Silk has been added because whilst not a proven model, it has cultural significance and with support could be a value chain that is accessible to poor households and women. Table 10presents an overview of the value chain opportunities for smallholders, distinguishing the entry costs, the investments required to reach an economic rate of return of USD 2000 and the inclusiveness and accessibility of the VC for different household types. Based on project progress and the development of the initial clusters, it is expected that these initiatives can be scaled-up and replicated not only within clusters, but also to new clusters. In

addition, the four flagship VCs have quick returns on investment so that the results chain, progress and lessons can be assimilated and contribute towards improved project strategies.

46. The pilot value chains identified for further piloting (from year 3 onwards) are beef, fruit orchards (principally longan and mango) and pepper. In each case, as Figure 13shows, the returns on investment are significant but the initial investment costs are too high for the project target group of poor and near poor. The main constraints in orchards for the smallholders are: (i) availability of land; (ii) initial investment costs for new trees and ponds and (iii) the delayed return on investment. However, orchards can bring returns on even quarter of a hectare, are not labour intensive and can support the pursuit of complementary economic activities. The Project will explore technical solutions that will enable staggered investments and medium-term returns through intercropping. In addition, Component 2.2 will support the development of financial products adapted to the particular profile of orchard investments. The inclusion aspects of these pilots, in terms of what households (ID Poor, near poor or non-poor but not commercial) can and should be supported by the Project will have to be revisited as the models and results chain develop.

47. Figure 13below profiles inclusiveness and potential impact of the VCs identified during the design. Table 10below looks specifically at the flagship VCs that will be part of initial project operations.

Figure 13: Inclusiveness, Impact and Accessibility of Value Chain Portfolio (illustrative only)



Note on Figure 13. These data should be treated as illustrative only.
The data presented are preliminary team estimates of the typical "cost of entry" for a minimum first investment in upgraded production in the given product (X axis). This is plotted again a credible incremental income for a typical near poor small holder farmers from a shift to the new production when it reaches full implementation (Y axis), which is a function of the typical land holding/production scale and net income per unit of production. The size of the bubbles is the team's preliminary estimate of the possible number of direct beneficiaries in each commodity that AIMS could reach. However, they do illustrate a pattern in the market opportunities available and the relationship between accessibility and impact at the individual farm level.

What is interesting from an inclusive development perspective is the pathways to get more farmers into opportunities higher up the Y-axis? This can either be done by:

- *innovative financing instruments, such as orchard financing loans. These are specifically things which AIMS will seek to pilot with the partner MFIs potentially using RDB loans initially during the pilot before MFIs are ready to lend to this type of investment.*
- *farmers themselves following series of steps up the ladder, starting in the bottom left and working upwards to the top right. Several opportunities exist which are highly accessible (quality assured rice, cassava, chickens) and which can generate incremental incomes in the order of USD500-1000 per year for a typical near poor farmer. Accumulation of some of this incremental income over time can help generate the funds to investment in more capital intensive but higher return agriculture. For example, a cassava grower with 2 ha. of production may get increased yield responses of 50-75% through better soil nutrition, appropriate crop rotation and using healthy planting material. At current prices, this would equate to increment net income of about USD1000 per year. Thus within 1-2 season of this higher return, it would become feasible to start to convert some of the land to orchards which, though a longer term investment, would ultimately yield higher returns*.

Table 10: Entry Point and Opportunities in Flagship Value Chains

	Smallholder VC opportunities	Entry-point costs/economic returns	Accessibility, inclusiveness on a scale of 1-5 and project response
Rice	• Increased efficiency of closely managed supply chains provide greater returns on quality. • Improved contract relations reduce risk, increase investment and increase returns.	• Land (2 ha, 4 for economic returns). • No capital investment required. • Opportunity cost of labour.	• Inclusiveness: 4 • Will include households from mixed poverty profiles as these will already be involved in quality assured rice production. Exclusion of non-poor households is not possible nor relevant to increasing inclusion. • Accessible for both men and women.
Vegetables	• Increased incomes by adopting new technologies and increased dry season production. • Potential for graduated adoption/investments (drip-irrigation, improved production practices, pond for dry season production, diversification of varieties). • Short value chain (producer/consumer), high quality products, possible organic certification	• Land (returns available even on small plots) • 400-500 USD for improved production on 500 square metres/ 1000 square metres for 2000 USD • labour opportunity cost	• Inclusiveness: 4 • Accessible to households with limited land. • Initial investments high for ID Poor households. • Potential for graduated entry points. • Matching grants crowd-in services, reduce replication risk. • Savings and Loans facilitated by BLF and eventually specialized lines of credit to support investments.
Chicken	• Intensive smallholder backyard chicken production system, which have the potential to transform the local industry by dramatically raising the profitability for small producers. • Benefit from increased investment in the supply chain and services in backyard chicken.	• 100 USD maximum for initial investment. • Graduated entry points possible. • No land, only homestead. • Opportunity cost of labour minimal.	• Inclusiveness: 5 • Especially suitable for ID Poor and traditionally women's domain. • New technologies accessible and simple and proven in country context. • Suitable for poor households with many dependents and/or pursuing parallel economic activities.
Cassava	• Increased production volumes, incomes and sustainable production through adoption of improved seed and soil management practices. • Reduced risk of cassava production.	• Land • Minimal entry costs (50 USD) • No minimum land size but economic returns require 2 hectares. • Opportunity cost of labour.	• Inclusiveness: 5 • Accessible to all households with land. • Especially relevant VC for Hub 2. • Relevant to the livelihood options of indigenous people. • Relevant to men and women.
Silk	• Benefit from policy support for raw silk production and investment in the value chain in which garment industry carries main risk.	• Land and labour • Capital cost of investment in mulberry/worms borne by industry.	• Inclusiveness: 2 (currently) • Accessible to households with little land. • Traditionally women's domain. • Accessible if industry bears cost of mulberries/worms. • Potential to make project support conditional on targeting specific households (for example, female headed).

Estimation of expected inclusion of different poverty categories

48. The poverty categories identified in the design and detailed in this working paper include ID Poor 1, ID Poor 2 and Near Poor with a national average of respectively[19]; 12.2%, 14.9% and 65%. The non-poor are estimated to represent roughly 10% of the population. These assumptions are based on extensive and recent national datasets. They are also supported by the wealth ranking exercises undertaken by PADEE. The design, based on data presented in Part 1 A of the Working Paper and on a rationale explained further in Part 2, Section B, will target both near poor, ID Poor 1 and ID Poor 2. The well-off will be excluded from direct grant support through a 'reverse wealth ranking' that details their AEZ specific characteristics.

49. The inclusion of the near-poor as a target group has been justified in the PDR, Annex 2 and the Working Paper and is based on their risk and vulnerability to poverty as assessed through four recent and extensive national poverty assessment surveys. In addition, the data, as well as evidence from PADEE, suggests that for ID Poor 1, as well to some extent ID Poor 2, agriculture is increasingly difficult as an economic livelihood strategy, as opposed to subsistence strategy. Nevertheless, the Project has selected some of the poorest Provinces in Cambodia, as outlined in Table 5, and selected VCs, based on detailed analysis, that have the potential to be inclusive, even for ID Poor 1 and ID Poor 2.

50. **The expectation is that around 65% of project participants will be 'near poor' and 27% will belong to the ID Poor categories**[20]. The near poor include those earning less than 3 USD a day per capita; they have been profiled in Annex 2 and Table 3 of the Working Paper. These fall into the poor category in the WFP Small Area Estimation of Poverty and Malnutrition, as well as in the Multi-Dimensional Poverty survey of the Oxford Poverty and Human Development Initiative as explained in the report. Very broadly, it corresponds with the group usually known to IFAD as the economically active poor.

51. Regarding the expected and relative distribution of participants between the three poverty groups (near poor, ID 1 and ID 2, the following analysis is presented and explains the expected inclusion rates – drawing on the national data as well as the recent and relevant example of PADEE., as four out of five PADEE Provinces are also AIMS starter Provinces (Prey Veng, Takeo, Kampot and Kandal).

Inclusion Benchmark: PADEE

52. PADEE is an agricultural extension and savings & credit project which became effective in June 2012. PADEE used a participatory wealth ranking exercise and voluntary self-nomination into the project groups - called "Improved Group Revolving Fund" (IGRF) groups.

53. ID Poor participation in PADEE IGRF is 21.1% across 49,000 households, with villages selected based on poverty incidence. Of these ID Poor, >2/3 are IDPoor 2 vs 1/3 of the poorest IDPoor 1. A further 70% were ranked as "near poor" in the wealth ranking, leaving around 9% ranked as better-off.

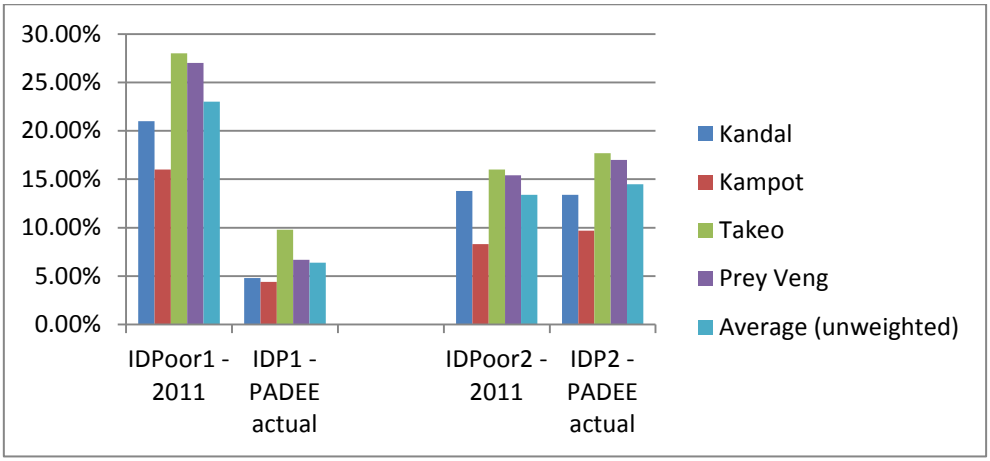
54. By comparison, the average ID Poor incidence across the PADEE provinces as of 2011 was 36.4%, so PADEE's IDPoor participation rate was only around 58% of the average ID Poor level in these Provinces despite a participatory wealth ranking exercise.

55. A more detailed analysis reveals that PADEE was able to positively bias its beneficiaries to IDPoor2 - achieving a participation rate of around 109% of the provincial average of IDPoor 2 incidence. But for IDPoor 1, the PADEE participation rate was on around 27.5% of the provincial average level of IDPoor 1.

[19] For the latest round of ID Poor data available, from 2011, the total incidence of ID Poor 1 and ID Poor 2 for Cambodia was 30%.
[20] Based on 2011 ID Poor categorization

56. **Conclusion**: The strong agriculture focus of PADEE combined with generous loan capital grants to the IGRFs when set alongside its actual participation rate among IDPoor 1 / 2 further supports the assessment that agriculture is only seen as a relevant opportunity for household economic growth by a minority of household classed as IDPoor 1.

Province	ID Poor Data 2011 (province average)		PADEE Actual Participation (Effective 2012)		Participation rate vs average (i.e. PADEE actual rate / Average rate)	
	IDPoor1	IDPoor2	IDP1	IDP2	IDP1	IDP2
Kandal	21.0%	13.8%	4.8%	13.4%	22.9%	97%
Kampot	16.0%	8.3%	4.4%	9.7%	27.5%	117%
Takeo	28.0%	16.0%	9.8%	17.7%	35.0%	111%
Prey Veng	27.0%	15.4%	6.7%	17.0%	24.8%	110%
Average (un-weighted)	23.0%	13.4%	6.4%	14.5%	27.5%	108.7%



57. **Implications for AIMS:** The PADEE experience suggests it is possible to provide a general forecast of the likely participation of IDPoor in agricultural projects that have a confirmed inclusion focus, as for PADEE and AIMS.

58. Using IDPoor 2011 data as the reference point, the PADEE-implied level of IDPoor participation at the provincial level for inclusive agriculture focused project may be:

= 109% x Provincial average IDPoor 2 incidence
+ 27% x Provincial average IDPoor 1 incidence

59. This is calculated for each of the AIMS provinces in Column "***A***" in the table below. For the four provinces without IDPoor data, the closest comparable province data is used - using the Commune Database poverty data as a reference.

Value chain inclusiveness

60. Some of the VCs of AIMS are more accessible than others. For the purposes of this analysis, the cost of entry for minimum credible initial smallholder production for the market is used as a proxy measure of the likely inclusiveness of the VC - though it is recognized that other factors are also important, especially related to risk and cash flow.

61. Each of the VCs to be supported is given a score of 1-5 for its expected inclusiveness based on the minimum cost of entry - 5 is the most inclusive and 1 the least. i.e. those with the lowest cost of entry are scored the highest (5) for inclusiveness and so there is assumed to be a favourable weighting of these VCs towards the poor.

62. Each of these VC inclusive scores is assigned a weighing factor relative the reference implied IDPoor provincial participation rates inferred from the PADEE experience (see above).

63. Weighting of IDPoor participation vc PADEE-comparable participation rates

5 = 110%	x	PADEE implied IDPoor participation
4 = 105%	x	PADEE implied IDPoor participation
3 = 100%	x	PADEE implied IDPoor participation
2 = 80%	x	PADEE implied IDPoor participation
1 = 60%	x	PADEE implied IDPoor participation

64. The VC inclusion scores and weighting factors are shown in Row "B" in the table below.

Hub	Province	Published Poverty Data				PADEE Implied IDPoor Provincial Participation "A"	Value Chains = PADEE Implied ID Poor Provincial Participation ("*A*") x VC Inclusiveness Weighting ("*B*")							AIMS Total
		Comm-une Data Base 2012	ID Poor Total	ID Poor 1	ID Poor 2									
		%	%	%	%	=IDP2 x 109% +IDP1 x 27%	Vegetables	Backyard Chicken	Rice	Cassava	Silk	Flagship VCsTotal	Extra VCs	
	VC Inclusiveness													
	Score (5=best / 1=worst, based on cost of entry)						3	5	5	5	3			
	Weighting of IDPoor participation (compared to PADEE participation rates)						100%	110%	110%	110%	100%	**<<"B"**		
							%	%	%	%	%			
Hub 1	Kandal	14.6	34.8	21	13.8	20.7	20.7							
	Kampot	20.4	24.3	16	8.3	13.4		14.7						
	Takeo	19.9	44.0	28	16	25.0	25.0	27.5			25.0			
Hub 2	Prey Veng	21.9	42.4	27	15.4	24.1	24.1	26.5						
	Kampong Cham**	20.4	NA	NA	NA	24.1	24.1	26.5	26.5	26.5				
	Kampong Thom**	29.1	NA	NA	NA	24.1	24.1	26.5		26.5				
	Preah Vihear	37	47.6	32	15.6	25.6			28.2					
	TbongKhmoum**	20.4	NA	NA	NA	26.1				28.8				
	Stung Treng **	36.8	NA	NA	NA	23.9				26.3				
	RatanaKiri	36.2	41.5	26	15.5	23.9				26.3				
	Kratie	32.6	55.6	36	19.6	31.1				34.2				
Hub 3	Battambang	24.8	51	34	16.7	27	27.4	30.1	30.1					
	Pailin	23.9	44	32	12.4	22		24.4						
	Siem Reap	28.8	47	31	16.3	26	26.1	28.8			26.1			
	BanteayMeanchey	25.5	41	26	14.7	23		25.3	25.3	25.3	23.0			
Cambodia		24.05		30										
	VC Inclusion - % ID Poor - Average (un-weighted)						**24.5**	**25.6**	**27.5**	**27.7**	**24.7**			
	Beneficiaries - Total (Households - projected)						**9,000**	**15,000**	**12,500**	**20,000**	**1,500**	**58,000**	**17,000**	**75,000**
	Beneficiaries - ID Poor (Households - projected)					**27%**	**2,204**	**3,837**	**3,443**	**5,539**	**371**	**15,394**	**4,512**	**19,907**

Appendix 3: Country performance and lessons learned

Portfolio performance

1. Projects are implemented in a context where agriculture is a high priority for the Cambodian Government as it is one of the core sources of economic growth and a fundamental axis of the country's development strategy. The agriculture sector has been proven to have contributed to poverty reduction and export-oriented growth. Projects are generally conceived to help Cambodia seize opportunities in the sector by overcoming obstacles such as low investment in rural infrastructure, extension and research. To date, the emphasis has been mostly on production, as opposed to market-oriented agriculture.

2. Project implementation performance has been affected by inadequate arrangements for staff compensation and incentives. In a context characterized by very low salaries, at times this has had serious adverse impacts on the progress of development programmes, especially as alternative systems of incentives have been introduced and withdrawn. IFAD is now in-line with the position of the UNCT in no longer providing financing for staff top-up allowances (or similar incentives) for government staff working on projects. However, RGC continues to consider such incentives desirable and so is financing these incentives from national budget within IFAD-financed projects.

3. Overall project implementation performance is satisfactory for gender and poverty focus, as well as in terms of effectiveness of the targeting approach. These represent clear strengths of IFAD's programme in Cambodia. For those projects under the remit of the MAFF/PSU and provincial teams there have been improvements in project performance in line with the recommendations from supervision missions. Despite gradual improvements in other aspects, project management performance and M&E need constant support especially to bring about a culture and mind-set of management for results. There is also wide variation in project performance across provinces, though the improvement in provincial performance within project such as RULIP after MTR has demonstrated what is achievable in dramatically raising performance if there is engaged and committed senior leadership from RGC reinforced with close implementation support from IFAD.

4. **CBRDP** was completed on 31st December 2009 having disbursed about 97% of the planned IFAD and Government cost contribution of around US$ 10.9 million, in addition to a German development assistance contribution of around US$ 9 million[21]. This was following a one-year extension period during which groups of Most Vulnerable Families (MVF) affected by the economic crisis and the rise in food prices, were assisted through revolving credit arrangements, and to allow for completion of the canal system of the Stung Phe irrigation scheme. CBRD reached 165,575 direct beneficiary households. Key achievements cited in the Project Completion Report included establishment of village networks and local technical committees; agriculture training and demonstrations in over 1,000 villages, construction of 355km of rural roads and 765 drinking water points and irrigation of 1,150 ha of wet season and 470 ha of dry season crops.

5. **RPRP** was completed on schedule on 30th June 2010. The final project cost was US$ 16.2 million of which IFAD contributed $US 15.6 million. This represents a drawdown of 82% of the project loan. The Project Completion Report found implementation of Component 1: Agriculture Investment; and Component 2: Local Development to be satisfactory; and implementation of Component 3: Institutional Support, to be highly satisfactory. Key achievements of RPRP include formation and support of 2,016 groups (100% of the Appraisal target) comprising 600 Livelihood Improvement Groups and 600 Farming Systems Improvement Groups in Prey Veng and 408 groups of each type in Svay Rieng (Agriculture

[21] Project Completion Report.

Investment Component); and 1,914km of rural roads and 3 concrete bridges, 174 brick classrooms, 463km of irrigation canals and 80 water gates in the Local Development Component.

6. **RULIP** was completed in Sep 2014 with final IFAD funding of approximately USD11.7m. The planned outreach of the project was substantially reduced at MTR due to limited effectiveness of interventions in the first half of the project, cost overruns and the need to repeat improved and more responsive activities with many project beneficiaries. Despite these early challenges, performance improved dramatically after MTR. The PCR concluded that "RULIP's achievements are significant and varied and overall project performance was rated as satisfactory. Even in the context of the broad tide of rural development, RULIP has unquestionably been a success for the rural communities it has served, especially the 14,894 households who directly benefited as members of the various self-help groups supported by the project (i.e. Livelihood Improvement Groups (LIG), Most Vulnerable Family (MVF) and Farming System Improvement (FSI) Groups). These RULIP supported households appear to have been able to take better advantage of this tide of development. In addition, the project has also substantially raised the capacity of over 681 individual service providers (VAHWs/CEWs) in the project communes and 94 IPM trainers at the District/Provincial level. The total number of major beneficiaries from the project is therefore around 15,669 households. At the household level, relative to comparable households in nearby villages and communes who did not participate in the project, according to the end line household survey RULIP supported households (in LIGS, MVF and FSI Groups)

   (a) are now wealthier - household assets are 33% higher than for comparable non-project households

   (b) have achieved higher agricultural production, sales and net farming incomes - e.g. for the main rainy season crop, project households produced 52% more crop (by weight), sold a high percentage of their crop (65% vs 60%) and so earned net cash income from their main rainy season crop that was over 3x more than non-project households (KHR1.16 million vs KHR0.37million)

   (c) increasingly produce a second season of crops (16% of project HH vs 5% non-project households at end-line vs 6% for all households before RULIP)

   (d) have more diversified farming systems - more variety of livestock and crops (including dry season)

   (e) built important social capital - with 283 successful groups expected to continue operating after the project - with 37 continuing as standalone GRF groups and 246 merging in to 92 ACs created through the project.

   (f) have greater voice in their local community's development and participate more in CC meetings and CIP processes - typically at least 50% more so than among non-project households across a range of measures of participation in the CC and CIP processes.

7. Caution should be applied in fully attributing all of these impact to RULIP alone. This is especially true given the rapid overall rural development that is ongoing and the likelihood that other un-observed factors have also contributed. Yet the range and scale of apparent benefits that are confirmed from multiple different data sources does strongly suggest that RULIP has made a significant contribution to many of the observed impacts.

8. The **TSSP** project did not begin implementation as scheduled in 2010 due to problems with the proposed institutional arrangements. Project execution arrangements were re-configured in mid-2011 so that the Project would have two Executing Agencies: MAFF for the Improved Agriculture Policy Environment component and NCDDS for the Commune Development component. Project management and delivery is slowly improving. Given the intensive follow-up and the fact that another 5 years to project completion remain, it is expected that the project will

finally be able to achieve most of its development objectives. This protracted situation has reduced the level of IFAD resources affected to the country under the current PBAS cycle. The case is a good illustration of the gap between the desirable corporate objective of co-financing and the reality that IFAD loses practically all control on project outcomes with far reaching consequences, when co-financing with major development banks. In the future, IFAD intends to take the lead and design a carefully selected sub-sector programme where a range of donors will be invited to join as in the case of ASPIRE.

9. **PADEE** (based on the design of the CBAPP collaboration with World Bank), became operational in mid-2012 and progress was rated as Satisfactory at its MTR in 2015. The project design was able to take advantage of the insights gained from the RULIP MTR and the RPRP PCR. The PADEE project continues the strategy of targeting poor and land-poor rural households by assisting them to form groups for assistance through finance and technology transfer. The project includes several innovations and partnerships for implementation relative to previous IFAD supported projects and constitutes a transition from the previous to the new COSOP approach. It is expected to directly benefit around 90,000 households in its five target provinces.

10. **ASPIRE** became effective in 2015 and represents an important shift towards a more programmatic approach to the IFAD portfolio. The design also builds on and expands both the roles of decentralized investment in agriculture as well as in partnerships between the government and the private and non-government sectors including farmer organisations in delivering sustainable service to farmers. The management arrangements also move the IFAD partnerships more into the mainstream of MAFF, with the adoption of performance based budgeting and closer alignment of the ASPIRE programme secretariat with the main MAFF planning and financial management teams rather than only with the PSU.

Lessons

11. The main lessons highlighted in the RB-COSOP are:

12. From a development investment perspective, the central role market-oriented agriculture will play in future growth combined with the diversity of farmers and market chains have a material effect on which development strategies and interventions are likely to work in different locations and markets to the benefit of different groups of farmers. This creates very real practical problems for development initiatives in coping with these localized variations:

    (a) How can investments better respond to the diversity of smallholders and markets to increase the depth and sustainability of impacts while maintaining sufficient scale in terms of the numbers of households reached?

    (b) What implementation modalities will be most effective in balancing this need for local sector specific interventions with achieving overall scale and efficiency?

    (c) Which partners are likely to be most appropriate to work with?

    (d) How can IFAD contribute to establishing a lasting capacity within the country to design and deliver effective pro-poor market development projects?

    (e) Institutionally, where is it most appropriate to build this capacity and specialist expertise to design and coordinate intervention strategies

13. The importance of M&E for improved programme implementation and scaling up cannot be over-emphasized. It is, in particular, critical to the success of the new COSOP's programmatic approach to implementation where testing innovations and scaling-up is closely aligned with the impact evaluation functions of the programme and directly linked to policy-making. There is also ample scope for more learning and knowledge dissemination as well as increasing impact and sustainability of IFAD and donor funded interventions building on evidence-based knowledge generation.

14. Performance-based management and implementation. One key lesson from past IFAD projects, donors experience in Cambodia and the COSOP process is the need for taking into consideration the motivations of different agents in designing rural development activities and implementing them in order to maximize efficacy and efficiency. There is ample scope for increasing impact and sustainability of interventions through (i) incorporation of beneficiary specific needs and motivations in the way support is provided, as well as (ii) design of delivery systems where service providers (both public and non-public) are adequately assessed and managed based on performance.

15. Combining public sector capacity development with an enabling environment for a broad range of service providers. Rural development programs are complex and one of the key lessons is that sustainability and impact of interventions requires an approach that combines strengthening the public sector with supporting delivery of services by multiple stakeholders. In particular, this is a key success factor in thematic areas which are becoming increasingly important, such as promoting poor farmers access to markets and agribusiness development. Such activities require business-like expertise which is often found in private sector service providers. In the case of profitable, market-oriented agricultural value chains many services can and should be provided by private sector providers with costs paid by users. They also require a degree of social entrepreneurship and/or local leadership skills. In the recent PADEE design, RGC has already started to follow such an orientation by involving key partners in project areas where public service capacity needed strengthening and/or could substantially benefit from complementary actions by other stakeholders. More specifically, under PADEE, MAFF is partnering with non-public service providers in knowledge generation, rural finance and extension services to achieve greater effectiveness. These approaches are also being further expanded and developed under ASPIRE, with a defined proportion of provincial-level investment in farmer extension to be delivered through PPP with private service providers.

16. RGC's leadership in the development of the rice sector provides a valuable demonstration of the merits of a comprehensive and evidence-based, sector specific strategy and action plan, that identifies and addresses the major bottlenecks along the rice value chain, around which development investments can be mobilized. Importantly, it also provides a valuable framework to enable co-ordinated action across many different government agencies. While there are many positive lessons from the experience with the rice export strategy, there are also other lessons that must be learnt from the more recent financial troubles encountered by many of the leading rice millers and exporters after a period of rapid investment and expansion of milling capacity.

Appendix 4: Detailed project description

17. Outcomes expected of the project are:

Outcome	**Indicators**	**Target**
Outcome 1: Profits to farmers and businesses from inclusive value chains increased for multiple higher value products	4. Aggregate value of products sold in target locations in AIMS priority value chains in real terms[22]	30% increase
	5. Adoption rate of production and postharvest technologies[23] of participating farmers	60%
Outcome 2: Private investment increased in priority value chains from smallholders and agri-businesses	6. Agri-business investment in priority value chains and production clusters	30% increase
	7. Smallholder investment in priority value chains and production clusters	30% increase
	8. Participating smallholder framers with increased financial literacy levels	50%
	9. Partner Financial Institutions (FIs) continue financing VCs after end of project	5 FIs
Outcome 3: Substantially increased capacity of national and sub-national institutions to design and deliver inclusive agriculture market development initiatives	10. MSPs that are active, well attended and positively regarded by participants of target VC cluster locations	90%

Components

Component 1: Value Chains Development

18. This is the lead component for AIMS and the driving force for impact for the entire project. The component will focus on brokering, facilitation and capacity building support to inclusive growth initial of five higher value product value chains - covering food and non-food crops and livestock.

Value chain selection

19. During the design process there was broad agreement of the importance of domestic market opportunities alongside export opportunities, given the strong demand and shorter/ simpler value chains (VCs) for some domestic markets.

20. The overall assessment is that there are already a number of product VCs, both larger and more niche, serving domestic and export markets, that meet the AIMS project requirements for fully fledged initial support based on the following criteria:

(a) clear, current market demand for the specific products

(b) interest from traders and agribusinesses to grow their sourcing from local value chains

(c) interest from farmers, including smallholders, to expand and improve their production

[22] calculation of "real terms" should include correction for changes in wider reference market prices for the particular product so that any gain/loss from general market price fluctuations are discounted.

[23] "Adoption Rate" in the production/post-harvest practices to be defined for each target product by the M&E team with technology experts at the start of the project. At the farm level, this is typically expected to include farmers adopting at least 2/3 of the components of an improved technology package for production a specific crop/livestock. Each of the technology components will be clearly defined and objectively verifiable, similar to what is already practiced in PADEE and ASPIRE projects

(d) opportunities for competitive, profitable and sustainable smallholder production already demonstrated in Cambodia at a reasonable scale

(e) practical intervention opportunities for AIMS to facilitate the accelerated development of the particular market and local value chains

21. AIMS will therefore initially focus on five "flagship" value chains from Year 1:

i) quality assured rice; ii) vegetables; iii) backyard chicken; iv) cassava; v) raw silk

22. AIMS may add additional value chains from Year 2 onwards that meet project criteria, as outlined above, and subject to the capacity of the project teams to support additional value chains(fruits plantation and production (langane, mango,…), livestock/beef production, selected spices (pepper, cardamom), non-timber forest products, etc.). This may also include initial pilot activities in VCs in which there is considered to be potential but in which specific issues need to be addressed before wider support can be justified.

23. Local priority VCs also have substantial potential and the regional hub teams, including representatives of farmers, businesses and local authorities will be supported to identify and screen local priority commodities and lead the selection of a limited number of additional local VCs to be included in AIMS as additional VCs mentioned above. (e.g. up to two local VCs per hub during the project subject to implementation capacity and resources). Candidate local VCs already mentioned by agribusinesses and farmers in various location include: longan, mango, pepper, beef and, potentially, aquaculture. A key test for inclusion of each of these for support under AIMS, with IFAD funding, is that there are demonstrated pathways to inclusions of poorer smallholder farmers into these value chains.

Value chain brokering and facilitation

24. The approach will be to build on existing and emerging production clusters and will: i) follow an iterative neutral brokerage process to facilitate and develop links between buyers, producers and service providers (through "multi-stakeholder platforms" (MSPs) or Contract Farming and similar mechanisms);ii) give priority to innovation in local value chains, especially using the VC Innovation Fund (Comp 2.1), and; iii) actively promote the development of local private sector business development service markets.

25. Given the structure of the agricultural sector in Cambodia, with many smallholders and small informal enterprises but only a few larger formal agribusinesses, the project adopts approaches that enable it to harness the activities of both small and large agri-businesses.

26. For each value chain, the potential for the local cluster development will be re-confirmed by initial rapid scans including confirming buyer demand and mapping and analysis of the different players (buyers, suppliers, banker, and service providers) and attractive to smallholders and youths. Following on from this, with both small and large agri-businesses as well as smallholders, an iterative process of facilitated meetings and discussions between buyers and producers will identify immediate and medium term intervention strategies addressing bottlenecks as well as opportunities for VC growth that can be taken individually or jointly by the local value chain actors.

27. The MSP approach is expected to be the central anchor process used in all the value chains, with the exception of the initial investment in the premium quality assured rice and raw silk value chains which are expected to be initially centred around contract farming arrangements between a small number of lead firms and their farmer networks. Contract farming between certain firms and networks of farmers can also be supported in other VCs, where interest emerges for this through the MSPs. The 4P models of public-private-producer partnerships will be relevant to some of the supported contract farming arrangements, especially for raw silk. In this regard the IFAD How To Do Note on 4Ps is a useful reference.

28. The project will facilitate these ongoing MSP, business to business (B2B) and Contract Farming processes and then provide technical and financial support through business to services (B2S) interactions, to address the particular priority bottlenecks and actions identified by the value chain actors that they cannot directly address without additional external technical or financial support. For project support, priority will be given to investments (large and small) that bring innovation in to the local value chain and that address the jointly identified bottlenecks of the primary VC actors in order to maximize the sustainable impact on smallholders (see Component 2).

29. In supporting contract farming development AIMS will undertake a series of training courses to increase awareness of the contract farming modality, its potential and its problems. Skills of selected service providers will be upgraded to enable them to provide support to the assessment of business plans involving contract farming and to the development of contractual arrangements through the training and organization of farmers and through support to contract negotiation.

30. Drawing on the experience of PADEE and the success in other projects and of key technical implementing partners, especially SNV, the following detailed process is proposed:

Cluster-based approach

31. For a majority of value chains AIMS will adopt a cluster-based approach, except those driven primarily through contract farming as an initial entry point (i.e. quality assured rice, raw silk).

32. A cluster is a geographic concentration of interconnected producers, businesses, suppliers, and associated institutions which creates direct and indirect synergies among them, resulting in market linkages (USAID, 2008). This means that a cluster approach will geographically group the key actors along the value chain in the same areas. The key actors include input suppliers, farmers, buyers, service providers and government agencies that will discuss arising issues in multi-stakeholder meetings and develop an action plan together to tackle the issues. It can be seen as a ‘stakeholder association’ which is a tool to create trust, address common issues and strengthen the value chain. If they are effectively going to address value chain constraints, clusters need to be used as a means to achieve an end not as an end in themselves.

33. A cluster is useful when (1)the value chain is highly unstructured throughout its segments (transportation, distribution, enabling environment), thus requiring interventions by numerous stakeholders who could not resolve any single issue alone, (2) trust among stakeholders is weak and hence a special effort to create trust and ‘social capital’ is necessary and (3)obstacles to objectives (e.g. increased sales) need to be addressed by multiple stakeholders and value chain segments (USAID, 2008). Overall, a cluster approach would help to address value chain constraints by building stakeholders relationship and finally respond to market needs.

34. When applying a cluster-based approach the AIMS teams will need to allow for the following points:

    (a) With multiple stakeholders involved in clusters, leadership can create a challenge. In that case, honest brokers are required who take up the role of bringing the stakeholders together and stimulate trust. It is important that the brokers gain the respect of all stakeholders.

    (b) To create trust among numerous stakeholders, it is very helpful to have a common goal and indicator e.g. increased sales and incomes. The MSP process facilitates in bringing together and developing ownership and mutual understanding among stakeholders.

    (c) Quick wins and early accomplishments are essential in fostering trust. This should be incorporated in early, doable action plans.

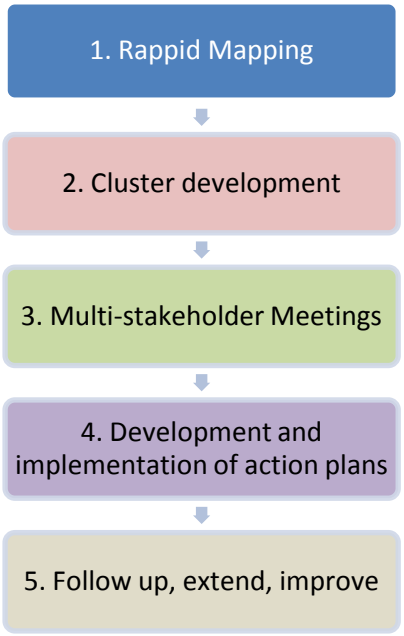
    (d) Clusters are not an end in themselves; through clusters, the stakeholders need to achieve demonstrable, quantifiable and successful results based on market demands:

value chains need to focus on what buyers want not on what is currently produced. Agribusiness-Producers Interactions meeting helps in driving this market led production. These wins will stimulate the stakeholders to continue in the same spirit of cooperation.

(e) Value chain enhancement requires the involvement of supporting institutions e.g. government, research institutions. To support the clusters, the stakeholders need to be able building on existing institutions, amongst others this will contribute to sustainability.

Outline AIMs process in each value chain cluster[24]

35. The mains steps in the process in each VC cluster are:



36. The VC teams in each Regional Hub Office will take the lead in coordinating these activities in the local VC clusters they are responsible for. The central PMO will ensure coordination and consistency between Regional Hub teams working in the same VC, e.g. chicken.

37. Each of these main steps is summarized below.

1. Rapid Mapping

38. The objective of the rapid mapping exercise is to identify the main actors in the local value chain, including their demands, downstream and upstream linkages, contributions and expectations within an area/sector. This will also provide existing (and potential) market segments, product volume and flows, driving forces, and leverage points, constraints and opportunities and finally indications of potential interventions for development of value chains mentioned above. Based on the identification, the VC team will develop clusters in relevant geographical areas. The identified farmers will be approached depending on their supply potential, amongst others. Also service providers and agribusinesses will be mapped. The mapping will be done in-house by the Regional Hub Teams with coaching from the senior VC specialist in the PMO.

39. The initial rapid mapping of VC potential includes three parallel elements:

[24]This process was developed by SNV as a key implementing partner of PADEE in Cambodia and based on the original experience of the joint IFAD-Government-SNV High Value Agriculture project in Nepal.

(a) Scouting and meeting with traders/buyers to confirm specific demand for products and explore their interest working with producer groups in cluster areas.

(b) Mapping geographical production clusters, encompassing existing producer groups and other potentially interested groups, and estimating supply potential over time (to match to identified demand from traders/buyers).

(c) Identify existing (and potential) markets segments potential to provide additional incentives for the value chain actors.

40. Rapid mapping is carried out for all commodities / products of interest in a given location using semi-structured interview questionnaires for all levels of stakeholders followed by Focus Group Discussion as required for validation.

2. Cluster Development

41. After rapid mapping, the VC teams will be able to select the areas of action for each commodity and will have identified viable size of VC actors: Producers, Agribusinesses, service providers (technical & financial) per area for having dialogue and to work with. The main VC actors will be grouped in a cluster. The different actors will also be approached individually to explain the purpose, discuss expectations and contributions and agree on the next steps. The projected number of households per cluster in AIMS varies as per the value chain considering the viability of business including services. The households range from 200 HHs in vegetable and silk, 300 HHs in backyard chicken to 400 HHs in rice and cassava.

42. A first concrete action after the identification of clusters will be a validation workshop (see MSP)with the aim to foster cooperation between actors willing to improve their economic and business performances in a win-win manner.

3. Multi-Stakeholder Platforms (MSP)

43. The MSPs in AIMS are a central element of the approach to facilitate inclusive development of each VC cluster. They will begin informally through the value chain validation workshop per commodity. This validation workshop will be held with buyers, traders and businesses as well as representatives of producer groups and with service providers. The aim of the workshop is to confirm:

(a) The scale and scope of the immediate market opportunity based on the perspectives of the private sector

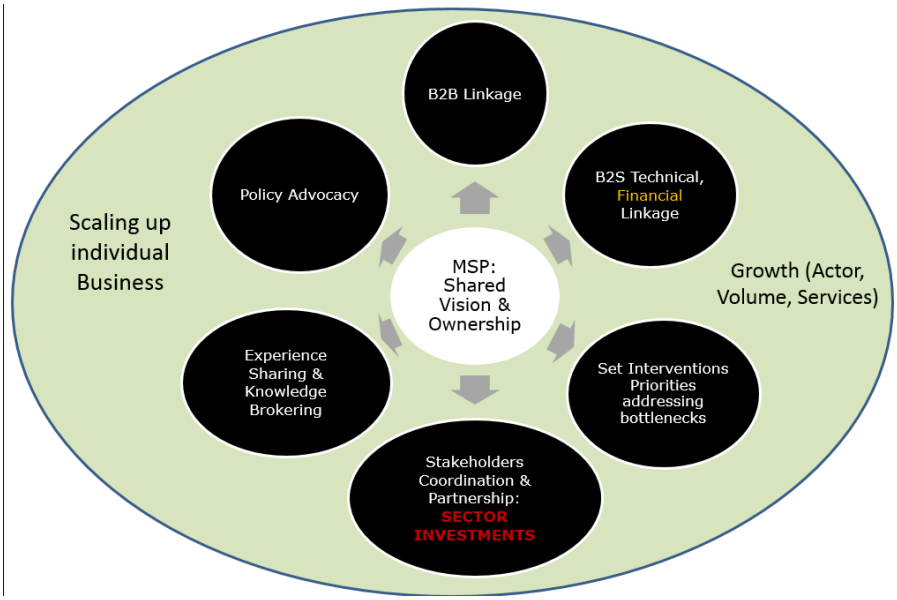
(b) The credibility of buyers/traders being interested to buy increasing volumes of the scale likely to be produced from the identified production clusters at prices likely to be sufficiently attractive for producers to increase production and meet demand

(c) The specific interest of sufficient numbers of traders, buyers and/or businesses to partner with the project and the producer groups in developing the local value chain

(d) That the project's instruments, modalities and resources are likely to be sufficient to make a meaningful contribution in addressing the likely bottlenecks and in stimulating accelerated growth of the local value chains

44. The following MSPs bring together the main actors involved in the value chain to establish relations between different (types of) value chain actors as a means for value chain upgrading and fostering collaboration and innovation. The MSP mainly enables different groups to interact with each other for shared learning, joint decision-making and collective action. The MSPs for each VC are driven by the actors and serves several critical purposes as outlined in the figure below:

Figure 14: MSP functions and purposes



(a) MSPs strengthen the internal coherence of the value chain, promoting inclusive business, and improving the productivity or earnings in order to generate higher value chain earnings, which in turn are aimed to particularly benefit small-scale producers;

(b) Facilitate meetings between groups of buyers/agribusinesses and farmers/producer for B2B linkages including contract facilitation and actors with other service providers (banks, nurseries, input suppliers, service centres, technical production consultancy providers etc.) for B2S linkages to deepen mutual understanding and identify win-win opportunities for greater collaboration;

(c) Identify specific bottlenecks in the VC that can be tackled with the support of the project - e.g. through facilitating new/improved commercial relationship within the value chain, through co-investment to stimulate private investment in critical elements of the local VC and/or investment in public good infrastructure;

(d) Identify the main bottlenecks and development of cluster upgrading road-map and immediate priorities - including who will do what and who will pay for what.

(e) Oversee delivery of a joint action plan developed with the main VC stakeholders in each cluster (producer, agri-businesses and service providers), the project and other development partners;

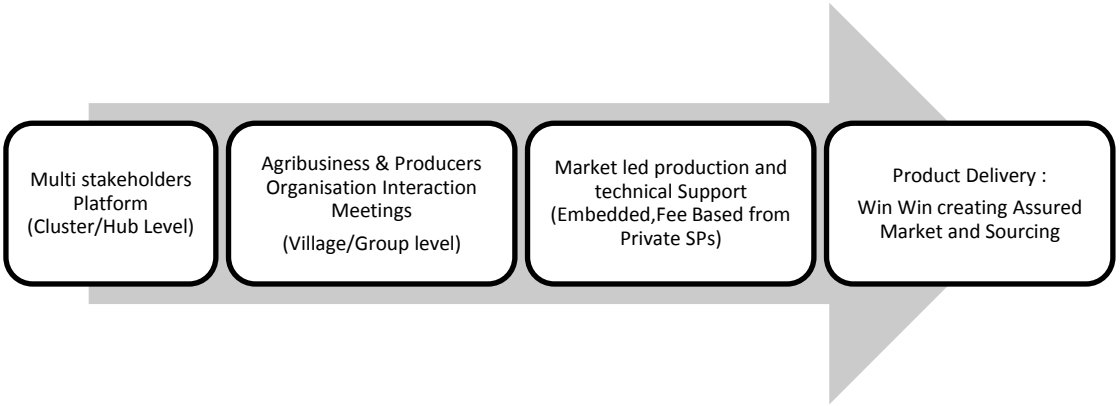
(f) Involved VC actors (via MSP strategy and action plan) to set priority areas for project support - e.g. main "types" of post-harvest/marketing investments to be prioritized for co-investment or TA support, critical public and market infrastructure for project investment, types of technical support needed).

(g) Improves coordination and partnership among the stakeholders for sector level investment, policy dialogue for improved business environment as well as experience sharing and knowledge brokering in specific value chain stimulating sector growth as a whole.

45. MSP will be organised at regular intervals in AIMS at Hub and cluster level with anticipated objectives evolving in a gradual manner, starting by a focus on creating ownership, stimulating B2B, B2S linkages relationship, addressing sector priorities and investments including experience sharing and knowledge development. The B2B linkages that are expected to evolve

after MSPs, based on experience in the Asia region, include the following steps creating win-win situation for both producers and agribusiness as illustrated below.

Figure 15: MSP and VC actor interaction sequence



4. Development and implementation of action plan

46. The main VC stakeholders in each cluster will develop a joint action plan during the MSP, facilitated by the VC teams. The initial action plans need to focus on immediate market opportunities or tackle the most immediate localized bottlenecks. Over time, the plans should fit in an agreed vision for the value chain and move towards more coordinated actions. The plans need to address more strategic opportunities or constraints that may affect longer term growth and vibrancy of the local sector as well as developing critical local service markets necessary for sustaining growth.

47. Project financial support to the agreed action plans will come through: a) applications for matching grants for private investment from the VC Innovation Fund (see 2.1), 2) direct project support for "public good" investments via the Sector Development Facility, and 3) linking VC actors to partner FSPs for additional financing via loans (See 2.2).

5. Participatory Monitoring and reporting

48. The VC teams in cooperation with the PMO need to monitor and report on progress against defined milestones for the development of each of the priority VCs. This should be based on an evolving results chain for each value chain and by applying an adapted set of principles and practices from the DCED Standard (the Donor Committee for Enterprise Development)..

49. All monitoring done will be captured in the MIS system of the project and guided by the M&E team.

Market-oriented social mobilization

50. For mobilization of farmers into the local VCs, the project will engage teams of market-oriented social mobilizers to work with the Regional Hub offices (see below). These social mobilization teams will also be the mechanism through which business and financial literacy training is provided to almost all participating AIMS farmers, via a cascade system using a system of Business Literacy Facilitators nominated by the members of the producer groups themselves.

51. In working with farmers, AIMS will be free to work with existing farmer groups and organizations, and mobilize new producer groups focusing on the particular product. As a general guide, based on past experience, existing groups should only be used as the entry point if a majority of their members want to join the specific VC concerned. If not, new producer groups should be mobilized.

Sector Development Facility

52. A Sector Development Facility (SDF) will be managed directly by the PMO of MoC (in its responsibility for Component 1) to focus on "public goods" that address specific bottlenecks to the VC development identified by the VC actors themselves through the MSP dialogues processes. The SDF will focus on "public good" investments only that cannot reasonably be delivered through private investment in the current context of the specific VC.

53. Investments under the SDF will be managed as distinct sub-projects, implemented either directly by the project teams or a suitably qualified contracted organization from either the public or private sector. Selection of the implementing partner for each sub-project will be based on purposeful selection of the best qualified to deliver the sub-project objectives and activities but with an element of competition where multiple equally-well qualified and interested potential partners are available. While SDF will focus on "public goods" for the VC, the private actors in the VC will be expected to make a financial contribution of at least 5% to all SDF sub-projects in order to confirm that these are indeed an immediate priority for the value chain actors themselves. For SDF sub-projects of more than USD20,000 value, the Central Investment Committee (see VCIF) shall be responsible for making the final decision on the selection of the implementing partner and approval of the sub-project.

54. Types of investment expected under the SDF include, among others: investment in physical markets, upgrading public testing labs or sanitary and phyto-sanitary (SPS) inspection capacity at provincial level, strengthening trade research capabilities, supporting bilateral SPS negotiations, piloting novel or untested business models (e.g. for health cassava seed nurseries), initial demonstration and promotion of new technologies or production systems, actions research, market studies etc.

55. The SDF Guidelines shall govern the contracting of IFAD proceeds under a Private Public Partnership Framework/ Model unless these resources are used by MOC to procure goods, civil works and consultancy services which would then be governed by the SOPs and the IFAD Procurement Guidelines.

Flagship VC entry points

56. Actual intervention priorities for AIMS will be determined by the VC actors themselves via the MSP processes. However, based on initial discussions with businesses and farmers and the design team's investigation of the flagship VCs, a number of specific issues and opportunities have emerged which are considered likely to provide important initial entry points for AIMS within these VCs. These are briefly summarized below and will be revalidated by the Hub teams during the initial VC rapid mapping and MSP dialogues at the start of the project.

Table 11: Entry points for flagship value chains

Flagship VC	Entry point / opportunities for AIMS
Quality assured rice	Increasing efficiency in closely managed supply chains through: 1. increased investment in mechanization and improved production and post-harvest practices along the supply chain and 2. better organization of the supply chain and relationships between lead export rice millers and producer groups.
Vegetables	Better linkages between buyers / traders and producers to jointly respond to market opportunities, especially import substitution of selected types of vegetables. This will require a combination of: 1. increased productivity of smallholder vegetable producer through improved production techniques. This will require more private vegetable technician to advise and support farmers to invest in improved VC production. 2. better organization and structuring of the value chains so local producer groups can become reliable suppliers for bigger buyers - i.e. farmers working together to plan and aggregate sufficient volume of the right products at the right time in order to

Flagship VC	Entry point / opportunities for AIMS
	reduce transaction costs and increase efficiency and reliability as a supplier, 3. reducing losses in the value chain, through better organization and also investment in appropriate collection, transportation and storage equipment and facilities 4. gradual diversification of the range of vegetables being produced where there is potential for competitiveness
Backyard chicken	There is very strong demand across the region and domestically for backyard chicken, as seen in the premium pricing vs broiler chicken (typically USD3.5/kg vs USD2/kg). Recent IFAD and joint IFAD/ADB support projects have demonstrated successful semi-intensive smallholder backyard chicken production system which have the potential to transform the local industry by dramatically raising the profitability for small producers. The entry points therefore include: 1. Increase the profitability of backyard chicken production to stimulate wider investment. and increase supply to meet strong demand. This will require development of private service providers to advise farmers how to set-up and operate these systems and supply the necessary inputs (chicks, feed, medicines) and especially reduce mortality rates primarily through better sanitary and phyto-sanitary safeguards at the household production level and proper use of vaccinations. 2. Increased supply will require better organization of the supply chain and relationships. Groups of chicken farmers will need to link to more traders and buyers to aggregate supply to serve local and outside markets. As well as stronger relationships and networks, this is also likely to need investment in collection and transport facilities and equipment. 3. With a growing poultry industry, strong animal health monitoring and enforcement systems will also need to be developed.
Cassava	To sustain the industry in the medium term there is a need to improve sustainable farm yields which are declining through widespread disease problems and poor soil nutrition management, largely through lack of experience and technical knowledge among farmers for cassava production which is a relatively recently adopted crop. Recent IFAD/RGC/CIAT supported projects (e.g. RULIP, 4FGF) have demonstrated good systems for improved sustainable cassava production in east/north east agro-ecological zones. However, the nature of the diseases means there is also an urgent need for reliable supply of large volumes of healthy cassava seed annually to sustainably reduce the disease burden in the industry and raise underlying competitiveness. 1. Given the scale of the cassava industry (>400,000 ha.), this will require investment in networks of private nurseries producing and selling healthy cassava seeds bundled with appropriate production advice on soil nutrition management to the very large numbers of cassava farmers. Focus initially on the major cassava zones in the north / north east where cassava fields are smaller and sustainable cultivation systems, based on intercropping and/or rotational cropping have been demonstrated to be viable and effective. The larger cassava fields and lower agricultural labour in the north west mean the production systems for sustainable production in the north east are unlikely to be adopted in the north west. 2. Attracting more investment in cassava processing factories, whether for starch or feed, will also help anchor local demand. Some recent factory investments have struggle to reach profitability, so it will be important to understand what the barriers have been and mobilize support accordingly.
Raw Silk	The critical issue is to demonstrate that raw silk production (cocoon or yarn) is an attractive investment for small farmers. For this to stand any chance of being successful, farmers must achieve high levels of silk productivity for which a reliable supply of quality genetics is vital - for mulberry plants and especially silk worm eggs. Recent efforts in this area in Cambodia have not resulted in a dynamic local raw silk sub-sector despite considerable efforts and resources. AIMS therefore needs to learn from these past efforts to increase the chance of success.

Flagship VC	Entry point / opportunities for AIMS
	The AIMS model of private driven investment in which lead silk firms carry the main risk is considered to give the best chance of making any pilot investments a success, though this is by no means certain. 1. As such, AIMS's entry point is likely to be initial pilot PPPs with up to 3 leading silk garment businesses to set-up contract farming schemes to produce raw silk for their own operation. These PPPs should also include arrangements for supply of improved quality silk worm eggs and quality mulberry saplings through private nurseries.

Contract Farming

57. Areas for possible contract farming of most relevance to AIMS are in the quality assured rice and raw silk value chains and the new value chains from year 3 onward, where the expected upgrading strategies require a closely co-ordinated relationship between a small number of lead firms and associated smallholder supplier networks. In these VC, a contract farming approach will take the lead in preference to the more general MSP approach that will be used in the other VCs. The IFAD promoted 4P models may have useful ideas on how to identify, select and manage such partnerships.

58. Although contract farming is often discussed in Cambodia there seems to be an inadequate appreciation of what is involved with such an arrangement. Academic studies on the subject seem to have regarded any arrangement where traders commit to make purchases from farmers as being contract farming and this is likely to have been the understanding of many others working in agriculture. While there is much that can be done to improve that type of linkage, and the AIMS project is recommending the development of Multi-Stakeholder Platforms that could play a role in this regard, it should be stressed that such linkages do not constitute contract farming.

59. As outlined in Working Paper 2 on Contract Farming, contract farming requires a relationship of mutual support, where the buyer provides resources and technical assistance that are “embedded” within the contract, in return for a commitment on the part of the farmer to sell the product to the buyer at an agreed price. See 2015 UNIDROIT/FAO/IFAD guidelines on contract farming to that effect[25].

60. The first step for AIMS should be to support training programmes in all relevant project areas to facilitate a greater understanding of the topic among government officials, NGOs, farmer associations and cooperatives, and, of course, the private sector. This training, which should involve an element of cost sharing by the participants, should address, as a minimum:

(a) What contract farming is;

(b) Different types of contract farming and their suitability for different products, farmers and locations;

(c) The potential benefits;

(d) Common problems and ways of avoiding them, to maximise the potential for success;

(e) The possible role of farmer organizations and other approaches to organizing farmers;

(f) The possible role of service providers to support a contract;

(g) Promoting trust and a full understanding among the farmers of what is involved;

[25] http://www.unidroit.org/work-in-progress-studies/current-studies/contract-farming and http://www.fao.org/3/a-i4756e.pdf

(h) Drafting a contract: how it should be done, the obligations of the parties and what should be included;

(i) Resolving disputes and responsibilities if difficulties cannot be resolved.

61. In this first phase the project should take stock of the ongoing process in the “Support to the Commercialization of Cambodian Rice Project” an AFD supported project.It is probable that some external support would be required to carry out the training. Both FAO and GIZ presently have the capacity to provide relevant training.

62. If companies or, perhaps, cooperatives then wish to promote contract farming it is likely that they will require further assistance. Such assistance could include:

(a) Assessment of the viability of the business model proposed.

(i) What are the likely production levels that farmers could achieve and would the proposed production be profitable for them at different price assumptions?

(ii) What are the risks associated with the business plan and how could they be overcome?

(b) Developing and negotiating a contract.

(c) Organizing meetings and other events to promote trust between the parties.

(d) Organization and training of farmers in contract farming and provision of technical advice.

(i) Companies are often unqualified to work on farmer organization and usually do not want to employ specialists to carry out this work.

(ii) Similarly, companies may prefer to sub-contract provision of agronomic and other technical support.

63. Such assistance would need to be provided by specialized service providers from within Cambodia. Such companies should offer broad support to agriculture and would not be expected to specialize just in contract farming as it would be risky for them to only work on one subject. On a cost-sharing basis AIMS could either finance in-depth training offered by external agencies or meet part of the cost of service provider staff being sent overseas to work on contract farming operations for a few weeks.

Component 2: Value Chain Financing

64. In support of Component 1, this component has the objective of stimulating increased private investment into the priority value chains by farmers, MSMEs, agricultural co-operatives (ACs), agribusinesses, service providers and others. The priorities for the investment agenda in each VC will be driven by the private VC actors, via the ongoing brokerage and facilitation process organized around the MSPs in each value chain (Component 1).The VC Financing component will take a three-pronged approach to stimulating far higher levels of private investment in to the priority VCs:

(a) highly targeted direct investment incentives will be offered on a competitive basis to "first mover" and early adopter investors - whether farmers, MSMEs, agribusinesses or others - who are prepared to invest in bringing new innovations into the local value chains to address identified bottlenecks - via new technologies, new business models, new products or new services. The "first mover" investment incentives will be delivered through partial matching grants, expected to average around 20% of total investment costs, and be "priced" to reflect the increased risk to the "first movers" but limited so as not to significantly distort the market. The grants should not seek to replace mainstream debt and equity financing. Once successful "first mover" investments have been made and other VC actors can see they are commercially feasible, the direct investment incentives will be phased out in that particular VC segment.

(b) demonstrating to mainstream financial institutions the potential for expanded commercial lending to an increasing range of investment opportunities in agriculture. This will be done through the provision of a line of credit to RGC's Rural Development Bank for on-lending to value chain actors in the supported VC.

(c) replication and scaling-up of commercially feasible investments in priority VCs, often demonstrated through the "first mover" grants above, will be facilitated by working with leading MFIs and banks to increases their capability to lend profitably to the agriculture sector in general, and the different segments of the priority AIMS VCs in particular.

65. These elements of the approach will be implemented through two sub-components:

2.1 Value Chain Investment Support

66. AIMS will provide direct financial support to stimulate private investment through two instruments for policy-based financing, to be professionally administered by RDB or a 3rd party fund administrator.

67. The total value of support grants and loans available to each VC through the VC Innovation Fund (VCIF) and line of credit should be broadly in proportion to the expected "development outcomes" of the particular value chain (in terms of number of farmers benefiting and amount of increased profit per farmer).Only investments assessed to be commercially feasible shall be eligible, including allowing for the theoretical cost of financing the grant element with a bank loan.

68. To avoid potential conflicts of interest, the appointed VCIF fund administrator will not participate in the grant appraisal and decision making for grants awarded under the VCIF, but rather administer the processes and ensure compliance with the approved Fund Guidelines and required fiduciary practices. The total value of investment support is expected to be in the order of USD18 million:

a) Value Chain Innovation Fund

69. For a complete description of the VCIF design and operating procedure, please refer to the draft VCIF Guidelines attached to this PDR. Below is a brief summary of the VCIF.

70. The VCIF will be of the order of USD 9 million. The VCIF will provide targeted investment incentives to "first mover" private investors (farmers, agricultural co-operatives, MSMEs, agribusinesses) along the selected value chains who invest in new production technologies, business models or other services/functions needed in the value chain. The incentives are to absorb part of the additional risk associated with "first mover" investments. The objective is to encourage potential adopters of new technologies or business models with unknown risks and economic benefits to actually adopt these and test their validity; this experience, as properly documented and analysed, will facilitate their wider adoption without government subsidy and help create turnover, income, tax revenues and employment.

71. Investment incentives will be implemented via matching grants to private investors, based on selected investment plans through a competitive process targeted specifically at the identified bottlenecks in each VC that are prioritised by the VC actors through the multi-stakeholder platforms. Grants are expected to represent around 20% of total investment on average with the balance contributed by the private investor (agri-businesses, producer groups, ACs, farmers etc.) from either their own capital or with own capital and loan finance. The percentage of grant offered and other terms will be actively monitored and revised if necessary based on actual uptake for different types of investments and VCs being targeted. If the 20% grant fails to attract private sector interest consideration will be given to increasing it up to a maximum of 30%. Grant recipients will only be allowed to receive one grant from the VCIF except in exceptional circumstances and with prior written approval from the Steering Committee and IFAD.

72. The VCIF will initially operate three Windows, each targeting a particular scale of investment and linked to the function along the value chain, as summarized below and detailed in the draft VCIF Guidelines attached to the PDR. The call for investment proposals under all three Windows will be driven by the priorities determined by the VC actors themselves through the MSP dialogue processes in the relevant VC and cluster. The Windows will be:

    (a) **Window 1: Smallholder farm investments** in improved on-farm production and initial post-harvest technologies and systems. Only non-rich smallholders are eligible, screened by land holding by VC (or household assets). Average grants of USD500/household expected. Up to 30 grants per districts for "first mover investors" in the promoted technologies to provide critical mass for demonstration effect to other farmers in the local VC cluster to copy. Grant appraisal and award decisions will be made by a Hub Investment Committee.

    (b) **Window 2: Small enterprise investments** initial post-harvest stages of the value chain (e.g. collection centre) or service enterprises (e.g. combined harvesting service, nurseries/hatcheries), these will typically be by private businesses, agricultural cooperatives or similar. Average grants of USD15000 expected for investments serving at least 50 households (equivalent to USD300/household served). Up to 4 grants per province will be made for "first mover investors" in the promoted investment to provide critical mass for demonstration effect to other investors in the local VC cluster to copy. Grant appraisal and award decisions will be made by a Central Investment Committee.

    (c) **Window 3: Medium business investments** in the downstream VC, for example export grade packhouses, modern slaughterhouses, multi-chamber cold stores, processing factories. Average grants of USD35,000 are expected up to a maximum of USD100,000 with the maximum of the equivalent of USD300 per household substantially benefiting from the investment (e.g. as a major buyer of the farmers produce).i.e. to be eligible for a USD100,000 grant the investment must deliver substantial benefits to at least 330 smallholders, typically as suppliers. Up to 2 grants per hub will be made for "first mover investors" in the promoted investment to provide critical mass for demonstration effect to other investors in the local VC cluster to copy. Grant appraisal and award decisions will be made by a Central Investment Committee.

73. The main principles applied in the design of the appraisal process (illustrated in Figure 16) are (a) transparency and accountability; (b) avoid leakages and free riding; (c) prudent and wise use in order to reduce the burden on the government budget, by attempting to achieve the goals set; (d) multi-layer appraisal of instances which are and operate independent of each other; (e) a first appraisal instance at local level by the staff of the project, followed by a second appraisal instance by an investment committee set up at hub and central level, to be completed by a third and final appraisal instance through a plausibility and compliance check undertaken by an independent fund administrator; (f) orientation towards the business objectives to be achieved as a priority; and (g) and rigorous monitoring of the activities and their respective duration. Details are presented in the Fund Guidelines in Working Paper 3.

<u>b) Line of Credit</u>

74. It is expected that this will be of the order of USD9 million provided to RDB (or qualified private bank) for on-lending. As with the matching grant investment incentives, loans provided through this credit line will be targeted towards investments that address specific bottlenecks in the VC identified via the MSP but for which banks and MFI are not yet ready or willing to provide commercial credit.

75. Typical investments expected to be partially financed by the line of credit include:

    (a) more complex innovative business models in the value chains, for example joint venture partnerships between lead firms and farmer groups;

(b) businesses investing in innovative technologies not previous seen in the country, e.g. mobile cyclone grain dryers; or

(c) longer term smallholder investments at the farm level for which MFI do not have matching sources of term finance.

2.2 Financial service provider partnerships

76. Accelerated private investment in higher value agriculture can only happen on a large scale with significantly increased financing from mainstream banks and MFIs to farmers, ACs, MSMEs, agribusinesses and service enterprises. With a particular focus on smallholder and MSME agri-finance, AIMS will work with a small number of MFIs and banks, collectively referred to as Financial Service Providers (FSPs) or Partner Financial Institutions (PFIs), to improve their outreach strategies and capability to profitably provide financing to the different segments of the agriculture sectors, and into the AIMS priority value chains in particular.

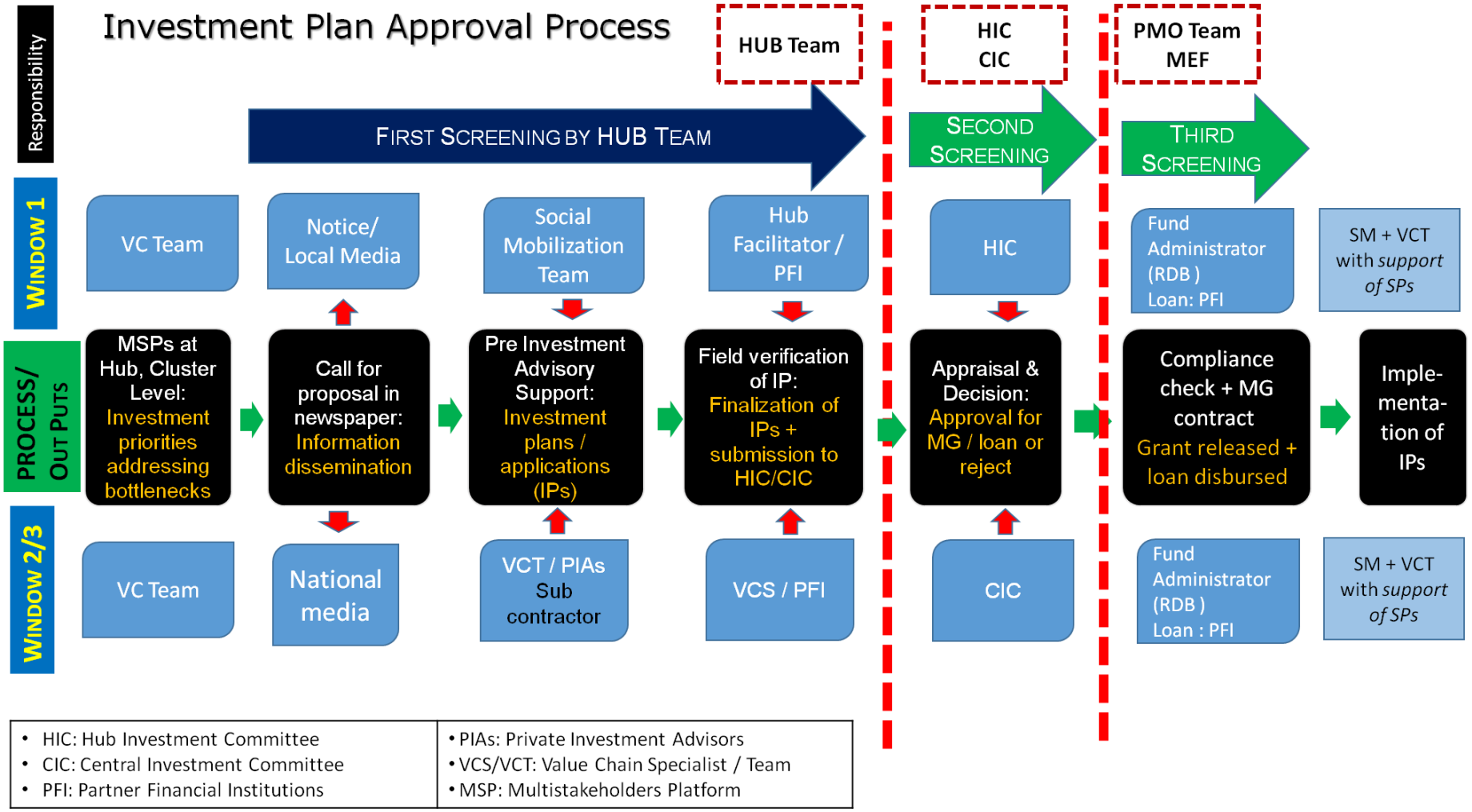
77. Several critical barriers exist at present stopping more widespread access by smallholders and MSMEs to affordable finance for agriculture:

(a) For farm-level production, there is limited availability of suitably designed loan products, for example that match the repayment schedules to the typical cash flows in the agricultural production cycle. Most small loans offered in the market are currently standard consumer or trade finance loans, with repayments of interest and principal beginning immediately, whereas seasonal agricultural loans would ideally have principal repaid as a "balloon" payment at the end of the loan period (linked to the production period) once the crops or livestock have been sold. This mismatch restricts uptake of loans and favours those with multiple sources of income.

(b) For farmers as well as MSMEs, the stringent use by FSPs of collateral (especially land title) to back loans, which for smallholders and small rural enterprises with little in the way of acceptable collateral, necessarily limits their ability to grow their farm and business through a loan.

(c) Limited in-depth understanding by FSPs of the different segments of the agricultural sectors, and the associate financial opportunities and risks for different types of farmers and MSMEs, means most FSPs do not have the necessary credit appraisal / scoring tools to assess and price risk competitively nor to manage an agricultural loan portfolio effectively. The net effect of this is conservative lending practices, both in terms of collateral requirements and interest rates charged.

Figure 16: VCIF Investment Approval Process



78. The main objectives of the sub-component are to create, test and widen partnerships between investors in the agricultural sector, in particular into commodities and value chains selected under the project, on the one hand, and the financial sector, on the other, with a view to increase the volume of finance flowing into the sector, and to create sustainable and profitable models for financial service delivery to the agricultural sector. In the medium to long run, it is expected that the efficiency gains achieved under these partnership arrangements will be passed on by financial institutions to their clients, thus leading to lower interest rates.

79. AIMS will only work with PFIs that demonstrate a strong commercial commitment to expanding their lending (and other financial products) to the higher value agriculture sector for their own commercial reasons. This is vital to ensure that increased lending enabled via AIMS continues to grow long after AIMS ends.

80. During the design process, the design team met various FIs (at local branch level as well as senior HQ staff). Through this process, several leading MFIs stand-out as trying to actively expand their agriculture finance portfolio - these include AMRET, LOLC and Prasac. They are already piloting or scaling up specific new financing products targeting particular segments of the agricultural market and have the ambitions to go further. Their current capacity permits them to serve the value chain actors under AIMS in the first years. However, for smallholder and MSME agri-finance to move further, they would need some capacity development in various fields, including a deeper understanding of value chain finance approaches, product development, risk management and options for reducing transaction costs for all actors in the value chains.

81. AIMS will initially start partnering with these three mainstream MFIs who have substantial existing portfolios in agriculture as well as having taken specific steps to strengthen their internal capacity to lend to agriculture, for example in having dedicated agriculture finance officers.

82. These three MFIs will require some additional technical assistance during the second half of the project. Similarly, RDB is expected to require targeted technical assistance from the start of the project. Such support can build on the improvements that have been achieved by RDB under a technical assistance project funded by AFD, which has focused on the loan appraisal process, the creation of a separate risk unit, and a new human resources development approach. This support project will end in the second quarter of 2017.

83. In addition, where AIMS is seeking to promote investments requiring longer term investments, then the partner MFIs may borrow from RDB (or the qualified private bank) for term loans for specific purposes which exceed their asset-liability matching capacity. The partnerships will be based on genuine common interest and will include:

    (a) participation of local lending officers and MFI staff in the MSPs organized by AIMS to better understand the financing opportunities and demand of actors in the supported VCs and to meet farmers and businesses wanting to make complimentary investments,

    (b) in-depth information sharing from AIMS supported investments by farmers, business and other on the actual cash flow and financial performance of these investments in order to increase the MFIs' understanding of the financial risks and returns and the suitability of similar copycat investments for mainstream for loan financing.

First movers

84. "first chain cluster - including producers, traders, agribusinesses, service providers and input providers - who are prepared to invest in bringing new innovations into their local value chains to address identified bottlenecks - via new technologies, new business models, new relationship structures, new products or new services.

85. For the purposes of AIMS and eligibility for VCIF grants, specific eligibility criteria are defined in detailed in the draft VCIF Implementation Guidelines included as Working Paper 5 for each of the three Windows, briefly summarized as:

- Window 1 for production investments by smallholders:
  - The investment constitutes an innovation to the local **district** in which it is to be located. Specifically not more than **three** communes in the district have more than 10 smallholders already actively practicing the proposed production system or investment, hence that there are not already more than 3 commune-level clusters of the investment already existing.
  - Producers may be individuals or those organized in informal farmer groups or formal associations or agricultural cooperatives; other private sector actors may have different legal statuses, such as company/joint stock, PLC, partnership or sole proprietorship
- Window 2 for small enterprise investments in the local VC:
  - The investment constitutes an innovation to the local **province** in which it is to be located. Specifically there are not more than **four** enterprises/ACs (or similar) already operating the proposed business in the province except under the specific conditions below:
    - Where the investments are expected to require high numbers of small investments - e.g. rice driers - the total number of grant provided may be increased to cover a total number of investment that have capacity for not more than 10% of the estimated required capacity of the local cluster. This means that for example in a rice cluster in a province that would require 50 flatbed driers to meet the demand of farmers, the project could provide first mover grants for up to five driers.
- Window 3 for medium enterprises investments:
  - The investment constitutes an innovation to the hub in which it is to be located. Specifically there are not more than **two** similar businesses are already operating within the **hub** area.

86. This means that, for example, under Window 2 if there are already two small enterprises in the same district operating a similar business to the one proposed in a grant application this new investment would still be considered a "first mover" for the purposes of the VCIF (because there are less than four similar business in the districts at the time of the application.) The rationale for supporting more than one first mover under each Window is to achieve sufficient numbers of first investments to act as a strong demonstration effect to other potential investors.

Partnership Activities - Overview

87. AIMS-FSP partnerships are expected to cover some of the following activities, adapted to the particular focus and priorities of each PFI:

(a) map and analyse the agriculture sector markets to delineate Value Chain segments and identify suitable opportunities for the PFI's growth, including within the AIMS priority VCs;

(b) develop and pilot-test suitable products (including new digital financial services) to serve different segments of farmers and agri-business in each priority VC, together with a strong risk assessment methodology;

(c) develop partnerships between the PFI and other VC stakeholders in order to lower operational costs in identifying and serving bankable customers, for example via the AIMS multi-stakeholder platforms or contract farming arrangements, to enable PFI lending officers to more easily connect with and serve bankable farmers and agribusiness engaged with AIMS;

(d) improve risk monitoring of PFI's agricultural portfolio on the whole by building a number of tools helping to understand the different value chains and their risks (especially for priority VCs / sub-sectors);

(e) build capacity within the PFI's credit departments, e.g. by establishing and building capacity of a dedicated agri-finance unit and/or value chain finance unit to support profitable growth of their agricultural lending portfolio;

(f) reduce the information gap via partnerships between PFIs and aggregators, input suppliers, technical service providers, producer groups etc. - so the lending officers are better informed of the real situation, risks and opportunities in particular segments of the market;

(g) work with the PFI to offer additional financial services to smallholders in addition to loans, such as savings or insurance, - for example savings products or term deposits for smallholders for part of their profits from the sales of their produce which has been financed by loans from the PFI;

(h) support to development of suitable systems and procedures to mainstream agricultural lending in the PFI's operations, including: agricultural loan policy manuals and procedures; systems for agriculture loan underwriting and portfolio management; and effective Management Information Systems for agricultural lending.

88. Within the scope of agreed partnerships, AIMS will work with selected PFIs to begin to address existing constraints to enable them to profitably grow their lending to agricultural MSMEs and smallholders. For example, it may assist them to design new technologies, such as cash flow-based credit, that will provide FSPs with simple, client-responsive, standardized loan product designs containing built-in specialised accounting, monitoring, risk management and management information systems designed specifically for agribusiness loans. By utilising these new credit technologies, FSPs will be able to better judge a borrower’s ability to pay based on a variety of input factors. FSPs will no longer be totally reliant upon collateral availability and valuation, but they will be able to better price their products based on the risks and costs identified by the system. The success of such technologies requires that they be combined with training to FSP loan officers, managers, etc. for the PFIs to understand their application. In the spirit of partnership between the public and private sectors, AIMS will provide co-financing for such capacity development measures on condition of cost-sharing. The longer-term objective here is to build institutional capacity of FSPs to increase their efficiency of service delivery, develop new lending products, and to generate competition within the agribusiness-lending sector, in order to drive productivity improvements and reduce costs to all parties in a lending transaction. The cost-sharing ratio with MFIs and commercial banks will be 50%, and 30% in the case of RDB.

89. **Agricultural Market Segment Mapping and Analyses.** To delineate Value Chain (VC) segments and identify suitable opportunities for PFI growth within the AIMS priority value chains, PFIs will be supported to prepare detailed mapping analyses within selected commodity value chains, which describe:

(a) production and marketing within the commodities in a given project geographic area.

(b) development partner and government activities in support of agricultural market development in the selected value chains.

(c) in-depth examination of the chain relationships and analysis of the specific financial needs of chain actors at each level.

(d) existing financial flows that complement the commodity flows within each chain in order to understand the flows of goods, money and payments, respectively, including critical seasonal/timing factors.

90. PFIs will also be supported to develop criteria for identifying and selecting "high potential" commercial agricultural lending opportunities that they may be interested to finance. These market-mapping analyses or commodity/equipment profiles will be documented fora respective geographical area and form the basis for learning materials to be used in the PFI for training purposes and informing their staff about the particular commodity VC in that area. These analyses are not Value Chain studies of AIMS-selected commodities.

91. **Risk management.** Client risk in agricultural finance, includes climatic and other production risks, and field-to-market agricultural processing and marketing risks. The AIMS VC Financing team will work with FSPs to investigate the measures FSPs could utilise to reduce these risks, including insurance and use of information technology, and assuring the credit-worthiness and repayment capacity of the borrower. The VC Financing team and FSPs will identify and classify risk factors inherent in the relationships, transactions, and interactions within each value chain (i.e., price, performance, operational). They will work together to develop a robust risk assessment methodology and other risk-assessment tools as required.

92. **Financial Products Design**. The design of financial products must take into consideration specific risk factors, and include potential risk mitigation strategies and approaches. Suitable financial products will, on a demand basis, be developed and pilot-tested (including new digital financial services and non-credit products such as machinery leasing) to serve different segments of farmers and agri-business in each priority VC. Innovative products can create additional value and expand the frontier of finance if they:

    (a) create access to the formal financial system for groups previously without access;

    (b) reduce transaction and risk costs of the PFI, the clients or both;

    (c) increase the term of loans and of savings; and/or

    (d) provide larger loans to clients by refining valuation processes.

93. Testing financial products through pilots will be part of this sub-component. The design of financial products will remain an exclusive domain of the FSPs, and there will be no effort to develop prototype products. Instead, selected FSPs may get support for TA selected by them, and without any obligation to reveal any of the results to competitors.

94. **Non-credit Products.** The agriculture sector needs a variety of financial services in addition to loans, such as savings and crop/weather insurance. Where possible, the project staff collaborating with the FSPs will seek to establish links with other actors working on agricultural insurance products. This will be facilitated by a separate IFAD grant for the further development of insurance services in several countries, including Cambodia. AIMS will coordinate with these grant activities where appropriate.

95. **Mobile Technology**. AIMS will work with FSPs to accelerate current initiatives to expand the use of mobile technologies and digital financial services in the agricultural finance market. For example, this may include exploring ways in which mobile technology might facilitate the underwriting, delivery, and management of credit, as well as other financial products suitable for VC actors. Mobile technology could also be used to provide production, market, weather or other pertinent information to bank clients. Mobile technologies and developments in e-banking could significantly increase the number of delivery channels available to FSPs, reduce costs and risks for both parties, and broaden financial inclusion in rural areas. FSPs need to implement a modern system with good use of technology to make the processing of rural loans more efficient and to facilitate the introduction of automatic control and follow up procedures.

96. **Multi-Stakeholder Platforms**. Partner FSPs will be important contributors to these platforms as they serve to reduce the information gap via partnerships between FSPs and aggregators, input suppliers, technical service providers, producer groups etc. - so the lending officers are

better informed of the real situation, risks and opportunities in particular segments of the market. These platforms, together with other AIMS activities, such as training courses, allow FSP lending officers to more easily connect and serve bankable farmers and agribusiness engaged with AIMS, and form partnerships in order to lower operational costs.

Management of Component 2

97. MEF, as the agency responsible for Component 2, will ensure that the component serves the financing needs of the VC actors participating in activities under Component 1. MEF via the MEF PIU will supervise the performance of RDB (or qualified private bank) in relation to the credit line and the appointed fund administrator for the VCIF. Funds for both the line of credit and grant fund will be released in tranches based on disbursement and overall service level performance, for example in terms of the time to process loan and grant applications.

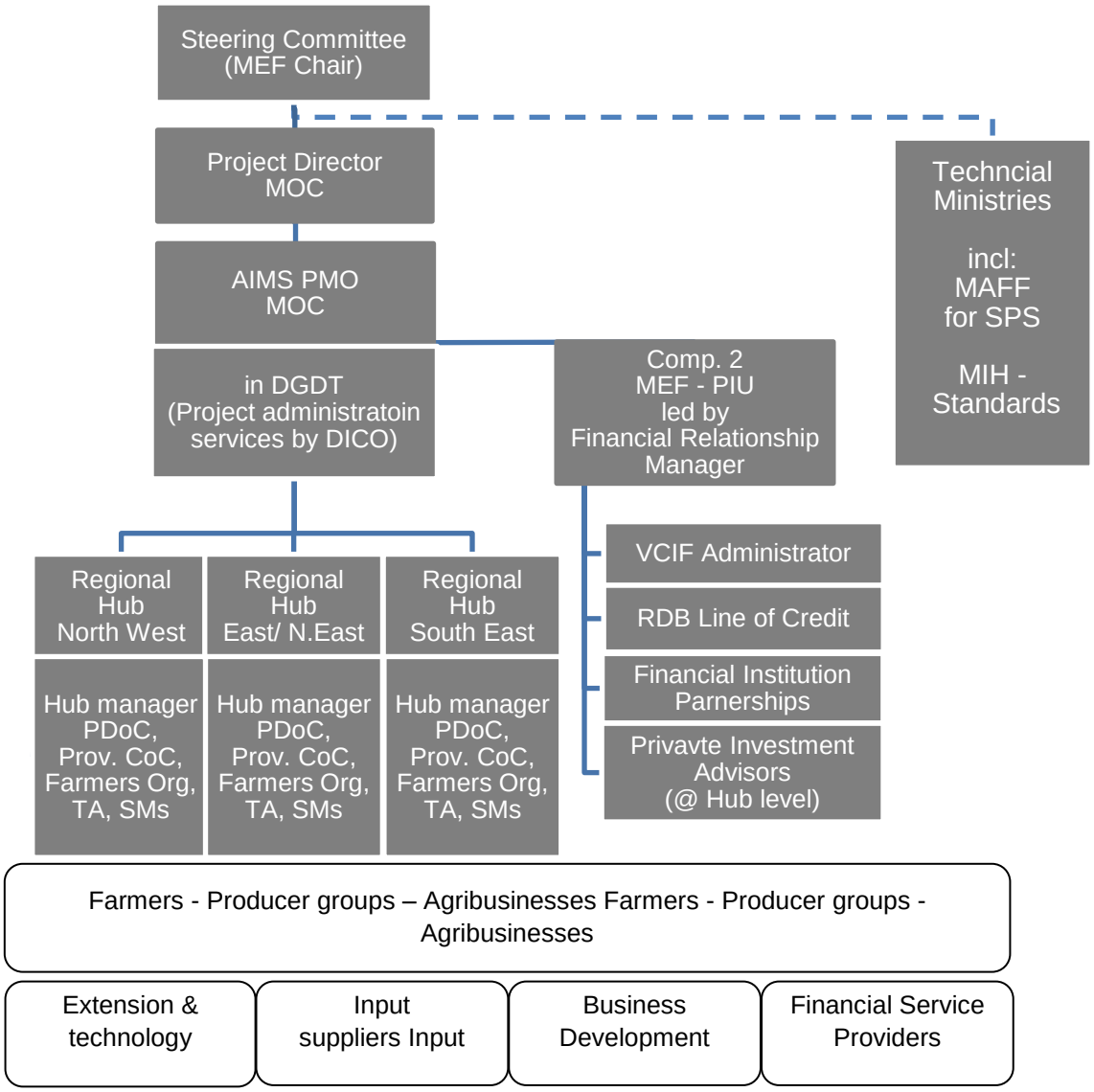
98. Administration of the Line of Credit under RDB (or qualified private bank) and the VCIF under the fund administrator will be done strictly in accordance with the relevant guidelines for the VCIF and Line of Credit that will be finalized as part of the PIM and for which the key principles and draft guidelines are included in the final PDR. The Guidelines and procedures will include clear mechanisms and criteria to ensure that the grant support from the project is provided to genuine investments in support of the development of the selected value chains for the benefit of smallholders and that it is not captured as a subsidy by wealthy farmers or businessmen.

99. The three Hub Investment Committees (Window 1) and one Central Investment Committee (Windows 2 + 3) for grant appraisal and decision making will be comprised of farmer representatives, representatives of the business community, government representatives and representatives of the financial institutions. The Investment Committees will operate under a strict code of conduct and no one group will hold a majority. All individuals and the organizations they represent must declare all actual or potential conflicts of interest in the concerned value chain or investment being considered and remove themselves from any meetings or discussion, in person or electronically, concerning the particular grant. This includes, but is not limited to, financial institutions that may be expecting to extend a loan for a specific proposed investment should not participate in the grant appraisal and decision making for any grant attached to the same specific investment.

100. It is expected that the specific condition for each Window under the VCIF and between different VCs will be reviewed annually through the Joint Supervision mission between RGC and IFAD, and the conditions adjusted as necessary to reflect real experience in the targeted VCs as it emerges.

Appendix 5: Institutional aspects and implementation arrangements

Figure 17: AIMS Organizational Structure



Note: The proposed implementation arrangements described below are subject to final decision by RGC.

1. **Steering Committee**. AIMS will be overseen by a Steering Committee (SC) chaired by the Ministry of Economy and Finance (MEF) in view of the need for inter-ministerial coordination as well as engagement between line ministries, AIMS partner institutions and private sectors at sub-national level. MOC will co-chair the AIMS SC. MEF is also the official Representative of the Kingdom of Cambodia as the Borrower/ Recipient. For effective work and decision making,

Steering Committee members will be appointed for not less than one year and total membership should not exceed 17 persons.

2. Members of the Steering Committee should include representatives of:

   (a) Government: MEF (Chair), MOC (Co-chair), MAFF, MIH, MOE, MOWA (6 members)

   (b) Representatives of AIMS partner institutions:

      (i) Provincial Chambers of Commerce from Regional Hubs (3 members)

      (ii) Partner financial institutions (3 MFIs plus RDB), (4 members)

      (iii) National network of Farmer Organizations, (3 members)

   (c) Technical Working Group on Agriculture and Water - Development Partner Lead Facilitator (1 member)

3. Representatives of other major related projects and donors in agriculture value chains will be invited to attend Steering Committee meetings as observers. Currently this would include: BFP, ASPIRE, CAVAC, Harvest II, S-RET, AFD, USAID, EU, ADB among others. The SC will play an important role in AIMS coordination with other DPs, in addition to the day-to-day coordination with other projects at the provincial level via the MSPs. Should coordination issues arise, IFAD will work with RGC and the other DPs to set up a more effective coordination mechanism.

4. **Overall Project Management**. Project implementation will be primarily on a decentralized basis with "light" central project management for the overall project and for each Component under MOC and MEF supporting and coordinating the major activity in the field through three Regional Hub Offices and via the contracted fund administrator for the VCIF and the Line of Credit via RDB..

5. A Lead Project Agency (LPA) will be assigned on behalf of the Steering Committee to take overall responsibility for project implementation under the leadership of the AIMS Project Director (PD).

6. **MOC** is expected to be the LPA for AIMS and also lead Component 1 on the basis that it is in charge of business development and agriculture marketing in the RGC framework and in view of AIMS' majority focus on market-linkages, facilitating investment along the value chains and on domestic and export trade and in recognition of AIMS' mandate in achieving a genuine multi-stakeholder approach with active participation of government agencies at national and sub-national levels, agri-businesses and farmers. MOC will host an AIMS Project Management Office (PMO) which will include the Component 1 management team led by the AIMS Project Director, expected to be at the Secretary of State level within MOC or the Director General of Domestic Trade. The AIMS PMO will also be responsible for overall AIMS financial management, reporting and project administration activities and will be embedded in the Directorate General for Domestic Trade (DGDT), MOC. As part of the PMO, MOC's Department for International Cooperation (DICO) will provide project administration services - financial management, procurement, M&E, communication and reporting. To strengthen alignment and institutional sustainability, these services will be delivered through DICO's own operational unit.

7. **MEF** will be the Implementing Agency (IA) for Component 2. Within MEF, a Project Implementation Unit (MEF - PIU) will be established within the General Department of International Cooperation and Debt Management (GDICDM) as the Management Team of Component 2. The composition will be in line with the provision of the Standard Operating Procedures (SOP) adopted by RGC for the administration of the externally funded projects. MEF through the PIU will (i) be responsible for the implementation of activities under Component 2 and (ii) supervise the performance of the appointed VCIF Fund Administrator and RDB or qualified private bank in relation with the line of credit. Administration of the Line of

Credit under RDB or a qualified private bank and the VCIF will be done strictly in accordance with the relevant guidelines for the VCIF and Line of Credit that will be finalized as part of the PIM.

8. MEF is also the official Representative of the Kingdom of Cambodia as the Borrower. In this role, and as Chair of the AIMS SC, MEF will be responsible for: (i) Providing inter-agency coordination when required; (ii) Fulfilling the government fiduciary oversight and management responsibilities; (iii) Providing sufficient counterpart contribution in a timely manner to finance the Project activities, including payment of government staff salaries; (iv) Timely processing WAs, approval of procurement actions and other necessary documents according to the SOP.

9. **AIMS Implementing Partners** are a central part of the project implementation approach to bring in specialist expertise as well as legitimate representation of key stakeholders into the project. Implementing partners (IPs), in addition to government agencies, will include:

   (a) the national network of Farmer Organizations (grouping 60 organisations and 5 apex)

   (b) Provincial Chambers of Commerce in the three provinces hosting the hub offices

   (c) social mobilization service provider organizations, three in total with one working as an integrated part of each hub team

   (d) partner financial institutions, initially three MFIs (Prasac, AMRET, LOLC) plus RDB

10. The Implementing Partners relationships and agreements will be managed by the management office for the most relevant components even though the IPs will have broader roles in the project, including in the Steering Committee (except the SM service providers). Consequently: the PMO will manage the agreements and coordinate the relationships with the Farmers Organizations, Chambers of Commerce and SM service providers while the AIMS PMO, specifically the Financial Relationship Manage, will manage the relationships and agreements with the PFIs.

Component 1 management

11. MOC will lead Component 1 and the bulk of field activities in the project are expected to be in Component 1. The AIMS PD will lead the overall component delivery, supported by a team of three Assistant Directors - one focusing on all technical and project management issues and two to focus on the delivery and performance of the three Regional Hub offices. .

12. **Regional Hub Offices** (initially 3 offices), under the direction of the Project Director and PMO, will coordinate field activities in the selected value chains and considered to be a sensible approach to implementation. These will be hosted in the Provincial Department of Commerce (PDC). Each hub will have a Hub Manager from the Provincial Department of Commerce and a deputy Hub Manager, a contracted position.

13. **VC Teams.** Within each hub, the VC Teams will play a leading role in delivering the component 1 activities. Each Hub is to:

   (a) Be organized into one or more VC Teams - with each VC team covering one or more VCs and to be accountable for delivery of results and managing all relationship in their assigned VCs;

   (b) Coordinate overall project activity in each VC, via the VC teams;

   (c) Function as the "honest broker" in running the ongoing VC facilitation process, via the multi-stakeholder platform process and contract farming facilitation to be used in AIMS

   (d) Include representatives from government PDC, private businesses (Provincial Chamber of Commerce) and farmers (farmers organizations), Value Chain Specialists (VCS -

contracted TA) and other contracted staff to ensure wide acceptance as "honest brokers" among VC actors.

(e) Include PDA's as active participants in the multi-stakeholder platforms coordinated by the VC Teams in each value chain and subject to performance, PDA's may take a role in the VC teams as well.

(f) Include Social Mobiliser Managers and Supervisors (See social mobilization team below).

14. **Service Team**. Each hub will receive the backstopping from a Service Team composed in majority of positions filled by government staff plus one contracted staff on M&E and Communications.

15. **Social mobilisation team**. Each hub will have market-oriented social mobilization teams attached to the hub offices in order to mobilize and support farmers to successfully participate in the expanding value chains. These social mobilization services are likely to be best provided by external services providers under contract, e.g. from experienced market-oriented NGOs or private service providers. Within each hub, the SM Manager and Supervisors will be part of the VC Team.

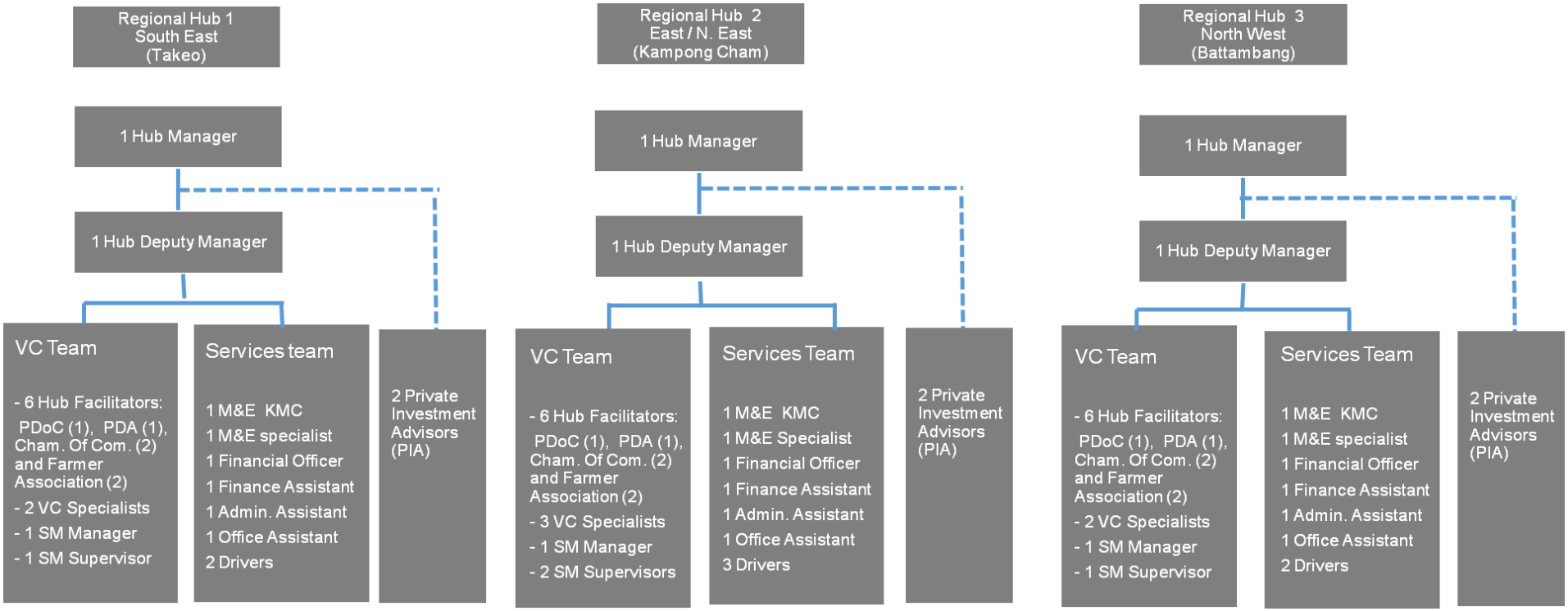
16. **Private Investment Advisors**. In each hub, two Private Investments Advisors (PIA) will be recruited. They will coordinate with the VC Team and will be accountable to the Fund Administrator of the component 2: Value Chain Financing.

17. **Technical and business development services to agribusinesses and farmers** should be primarily delivered by private service providers with costs paid by service users in order to move toward self-sufficiency within market-oriented value chains (i.e. not reliant on long term direct or indirect subsidies from the government).

18. The organizational structure and staffing at the hub level is shown in Figure 18 below. The Hub Manager will report to the Project Director via the PMO.

19. The Hub team in Kampong cham will also be responsible initially for covering activities in Preah Vihear as well as the 4 provinces (Kratie, Strung Tren, K. Thom and Rattanakiri) expected to be the centre of cassava VC activities in AIMS. To better serve these VC clusters, the hub team will include one extra VC Specialist and SM Supervisor to be out-posted based between Kratie (cassava VC) and Preah Vihear (rice) plus additional logistical resources.

Figure 18: Organisational structure and staffing at Hub level



20. **Component 2 management:** MEF will lead the implementation of Component 2 and will ensure that the component serves the financing needs of the VC actors participating in activities under Component 1. MEF will supervise the performance of RDB or qualified private bank in relation to the credit line and the appointed fund administrator for the VC Innovation Fund. The Component 2 management team under MEF will administer the contracts with the VCIF Administrator and with RDB for the Line of Credit. The Component 2 management team will comprise:

    (a) A Financial Relationship Manager (FRM), (senior government officer) appointed by MEF will: (i) coordinate activities, including managing the relationships with Rural Development Bank (RDB) or qualified private bank and the partner financial institutions and supervising the PIAs, and (ii) act as Secretary Member of the Central Investment Committee for VCIF grant appraisal and award decisions. The FRM will be assisted by a recruited National VC Finance Specialist. The FRM will be responsible for the preparation of all financial reports to be submitted to MoC on a regular basis.

    (b) An appointed Financial Investment Officer (FIO) to analyse and document the financial and commercial performance of the different investments supported under the VCIF and credit line in order to communicate to other potential investors and FIs as to the actual returns and risk from the different investments prioritised by MSPs. FIO will be assisted by a recruited National Financial Investment Specialist.

    (c) Six Private Investment Advisors (PIAs), reporting to the FRM will be assigned by two to each hub and hosted by the Provincial Department of Economy and Finance (PDEF). The PIAs will: (i) have the responsibility for managing the grant application process under the VCIF, (ii) be available to provide pre-investment advice to potential grant applicants, (iii) carry out field validation visits to all grant applicants as part of the initial application review process, and (iv) be responsible for communicating directly with the grant applicants to keep them informed of the progress of their application and award. While administratively hosted by the PDEF, where possible PIAs will work in the same physical office as the Hub teams under Component 1 to ensure close coordination.

Project staffing

21. A summary of project staffing is shown in Table 12.ToRs for key posts are included in the Final Project Design Report.

22. The government assigned Project Director and Assistant Directors will be expected to work part-time on AIMS, as AIMS will form part of their regular duties. All other government staff assigned to the project will work fulltime on AIMS.

23. All contracted post and technical advisors will be fulltime unless specifically stated otherwise. Contracted posts and technical advisors, including national and international, will be professionally competitively recruited on an individual basis except the three social mobilization teams (one per hub) which will be recruited via institutional service packages by the PMO. Contract staff shall be paid competitive market rates.

Table 12: AIMS Project Staffing

Team	Position	Type[26]	Unit	2017	2018	2019	2020	2021	2022
Lead Project Agency (MOC)									
Senior leadership team	AIMS Project Director	Gov	People	1	1	1	1	1	1
	Assistant Director - (Senior Project Management Specialist)	Contract	People	1	1	1	1	1	1
	Assistant Director - Hub 1	Gov	People	1	1	1	1	1	1
	Assistant Director - Hub 2&3	Gov	People	1	1	1	1	1	1
PMO - Project Administration Services (DICO)	AIMS Manager - DICO	Gov	People	1	1	1	1	1	1
	AIMS - Assistant Manager - DICO (Deputy Directors of DICO)	Gov	People	2	2	2	2	2	2
	National Procurement Officer	Gov	People	4	4	2	2	2	2
	National Procurement Specialist	Contract	People	1	1	1	1	1	1
	National Finance Officer	Gov	People	4	4	2	2	2	2
	National Communications Officer	Gov	People	4	4	2	2	2	2
	National M&E Officer	Gov	People	4	4	2	2	2	2
	International M&E & KM Specialist	Contract	People	0.5	1	0.25	-	-	-
	National KM & Communications Specialist	Contract	People	1	1	1	1	1	1
	National Administration Officer	Gov	People	2	2	2	2	2	2
Component 1 (MOC)									
Component Management									
PMO - Technical (Directorate of Private Sector Dev. (DPSD) of DGDT, MOC)	AIMS Manager - Technical	Gov	People	1	1	1	1	1	1
	VC Development focal points (Deputy Directors DPSD)	Gov	People	3	3	3	3	3	3
	VC Specialist - International	Contract	People	0.5	1	0.75	0.25	**0**	**0**
	VC Specialist - Senior National	Contract	People	1	1	1	1	1	1
	National Administration Officer	Gov	People	2	2	2	2	2	2
Regional Hub Offices (3 offices)									
VC Teams	Hub Manager /o	Gov	People	3	3	3	3	3	3
	Hub Assistant Manager	Contract	People	3	3	3	3	3	3
	Hub Facilitators:								
	- Hub Facilitators - Farmer reps	Contract[27]	People	6	6	6	6	6	6
	- Hub Facilitators - Business reps	Contract[27]	People	6	6	6	6	6	6
	- Hub Facilitators - Gov.	Gov	People	6	6	6	6	6	6
	Value Chain Specialist - National[28]	Contract	People	7	7	7	7	7	7
Service Teams	M&E Officer	Gov	People	3	3	3	3	3	3
	M&E, KM & Coms Specialist	Contract	People	3	3	3	3	3	3
	Financial Officer	Gov/Contract	People	3	3	3	3	3	3
	Finance Assistant	Gov/Contract	People	3	3	3	3	3	3
	Admin. Assistant	Gov/Contract	People	3	3	3	3	3	3

[26]Post shown as "Contract" will be recruited as individuals unless stated otherwise.
[27]Recruited and supervised by Farmers Organization / Chambers of Commerce
[28]Two in each hub plus one extra for Hub 2.

Team	Position	Type[26]	Unit	2017	2018	2019	2020	2021	2022
	Office Assistant	Gov/Contract	People	3	3	3	3	3	3
	Drivers	Contract	People	6	6	6	6	6	6
Market-oriented social mobilizer	Social Mobilizers (SM)	Contract[29]	People	50	80	100	110	110	110
	SM Manager	Contract[29]	People	3	3	3	3	3	3
	SM Supervisor[30]	Contract[29]	People	4	4	4	4	4	4
Component 2 [31]									
Component 2 Management (within MEF-PIU)	Financial Relationship Manager	Gov	People	1	1	1	1	1	1
	Financial Investment Analyst	Gov	People	1	1	1	1	1	1
	National VC Finance Specialist	Contract	People	1	1	1	1	1	1
	National Financial Investment Specialist	Contract	People	1	1	1	1	1	1
	Admin. Assistant	Contract	People	1	1	1	1	1	1
Hub level	Private Investment Advisor (PIA)	Contract	People	6	6	6	6	6	6

[29] Institutional contract
[30] One in each Hub plus one extra in Hub 2.
[31] The Project Management will be hosted in MEF

Appendix 6: Planning, M&E and learning and knowledge management

Planning

24. Planning processes and schedules within AIMS will be harmonized with the mainstream planning process of RGC as much as possible, and MEF and MoC in particular.

25. **Annual AWPB Approval Process:** During the final quarter of each year, the AIMS PMO will prepare the AWPB for the following year in coordination with the Component 2 Management team. The AWPB will be prepared by consolidating, from Component 1: (1) the plans for each Value Chain (driven by the priorities emerging from the ongoing MSPs) and Regional Hub Office, (2) plans for investments under the SDF; and from Component 2: (1) expected disbursement under the VCIF and Line of Credit to RDB and (2) plans associated with each of the FSP partnerships.

26. The forecasted disbursements from the VCIF and Line of Credit will be jointly developed by the VC Teams and PMO from Component 1 with the Component 2 managers.

27. The AWPB will be submitted by the Project Director and approved by the annual meeting of the AIMS Steering Committee (SC). Because of the risk of timing difficulties arising, the AWPB will be deemed approved if there is no comment by the members of the Steering Committee or no meeting is held after a lapse of time of two weeks after submission of the AWPB for review by the SC.

28. **Programme Budgeting** (PB) is just beginning to be mainstreamed within MoC though at its very early stages. It is therefore not yet clear how this will operate in practice. AIMS will therefore not initially follow the Performance Based Budgeting and PB approach, but this will be reviewed at MTR to assess if it is appropriate and feasible for AIMS to move in this direction. The experience of ASPIRE in following PB in MAFF will provide important lessons in this regard.

Monitoring and evaluation

29. As the experience in other projects has demonstrated, it is vitally important that the demand from relevant, reliable and timely data comes from the very highest levels of the AIMS leadership. If there is clear and unequivocal demand for excellent, actionable M&E data from the senior leadership then all managers and project teams will place a high value on both gathering and using the M&E data.

30. A key focus for the M&E will be to build a highly effective system that provides timely and reliable information for result-based management and decision-making on developments in each of the priority value chains so that the intervention plans can be managed for impacts.

31. Given that a majority of the data collection, analysis and usage from the M&E and MIS systems will be related to the performance of the farmers and agribusinesses in the VCs and clusters, M&E activities will be primarily delivered by the AIMS PMO.

32. Setting-up of the M&E system. Once the project staff is on board, the PMO will prepare an M&E Plan for approval by the PD that will encompass:

    (a) Preparation of an M&E matrix summarize how all indicators will be collected, by who and at what frequencies

    (b) Procedures and tools for data collection, entry and analysis

    (c) Indicate how the indicators should be measured

    (d) Establish flow of communication and reporting along with timelines.

(e) Assess the capacity of staff-M&E and others-in undertaking M&E responsibilities

(f) Develop staff capacity building needs assessment

33. Design of the M&E system. The PMO, with the assistance of the M&E Technical Assistance, will:

(a) Finalize the M&E Processes that integrates three tools: Result and Impact Monitoring System (RIMS), project Log Frame and principles of the Donor Committee for Enterprise Development Standard (DCED Standard) (e.g. Result chain).The M&E system will include the use of regularly updated results chains and M&E frameworks for each priority value chain to compliment the overall “RIMS plus” M&E and project logframe. The use of results chains for each VC will enable the identification and tracking of relevant intermediate change indicators for each VC and cluster. They will also be a powerful tool for communication among VC stakeholders to develop shared understanding of the opportunities, bottlenecks an inter-dependence of different actions and investments.

(b) Develop various tools for data collection, entry and analysis:

(i) Value chain tracking and household tracking surveys and data will form an important part of the AIMS M&E data. Value chain tracking data is intended to monitor the overall performance and emerging issues in the local value chains targeted by the project. These data will be collected at least once per season and more frequently as needed (e.g. for price data).

(ii) Household tracking data will be an integral part of the pro-active management of the project to ensure that specific intervention, especially in terms of improved production and post-harvest technologies at the farm or village level are being effective.

(c) Develop the format of "rolling baselines" in which baseline data on each cluster is collected at the time that interventions begin in the particular value chain in each cluster areas. This will include both households surveys and trader/business surveys as well as reference to secondary data sources.

(d) Develop the format for annual outcome survey (if the process will be performed by the project staff).

(e) Design of a Management Information System (MIS). ITC will play an important part in improving the efficiency, reliability and performance of the M&E of AIMS. It is expected that the project will develop a suitable MIS system that will include an online web based hosted in the PMO and offline table-based direct data entry in the field. The MIS will integrate the existing data:

(i) Commune Data Base (CDB)(NCDD and MoP),

(ii) ID Poor from MoP,

(iii) Scorecards (MoP) and

(iv) Vulnerability Index (MoE)

(f) Staff capacity building. Training is crucial to enable an effective implementation of the M&E system. Experience showed that others staff other than M&E staff should benefit from the training. As such, in AIMS, staff at Hub level and social mobilizers should benefit from this training. More importantly, it should apply the new actor, Business Literacy for the sake of cost effectiveness and sustainability. Household level tracking is prohibitively expensive if done as an external M&E activity. However, AIMS will build on the experience of HVAP and mainstream household tracking as part of the self-learning process for supported farmers and farmers groups. This will be achieved through the

business and financial literacy training activities and follow-up which will encourage a majority of project supported households to maintain household record books of their farming activities. The experience from HVAP is that the farmers themselves place a very high value on the insights they gain from their own records and a majority are keen to keep their records books up to date once they are given the skills and support to do so. This will be delivered via the voluntary Business Literacy Facilitators nominated by each producer group. AIMS will also explore the possibility of providing each of the BLFs with a MIS-enabled tablet in exchange for them entering summary household record data on a periodic basis directly into the M&E system.

34. The "rolling baseline" surveys of VC clusters and other surveys of households and businesses will be sub-contracted to an external service provided to improve quality and consistency.

Learning, Knowledge Management and Communication

35. AIMS is a new generation of IFAD-supported projects dealing with inclusive market development in Cambodia. It is therefore explicitly intended to generate practical knowledge of what works (and what doesn't work), how to apply the successful approaches and to improve the capacity of various stakeholders. Effective and efficient learning, knowledge management and communication are therefore central to AIMS longer term objectives.

36. A Knowledge Management and Communications (KMC) strategy will be developed and integrated into the management of AIMS. It will play a large part in ensuring the project achieves its outcomes. The KMC Strategy will be coordinated by DICO on behalf of the AIMS PMO and will have a full-time KMC Officer and by one M&E KMC staff and one M&E contracted staff at the hub level.

37. The Project Management Office (PMO) with the Assistance of the project Technical Assistance will develop a Knowledge Management and Communications Strategy that shall cover three Scoping areas (See Figure 19 below):

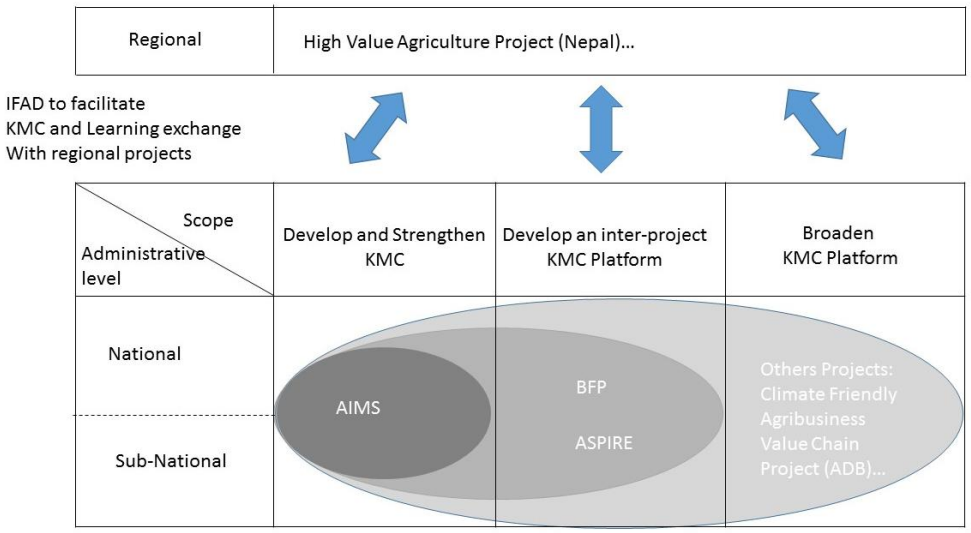
(a) Area 1: Develop and Strengthen KMC internally between the three hubs.

(b) Area 2:Develop a KMC Platform. As recommended by the Royal Government of Cambodia, AIMS is encouraged to have linkages at least with two projects: ASPIRE and Boosting Food Production(BFP).

(c) Area 3: Broaden the KMC to others in-country projects.

38. Linkages with agriculture value chain projects in the region is recommended. IFAD will facilitate the learning and Knowledge Management and Communications in a two way exchange directly or through the websites IFAD Asia and SEA Hub.

Figure 19: Knowledge Management Strategy scoping areas



39. There are several knowledge themes considered to be likely of immediate interest to senior leaders in MEF, MoC and project parties at national and sub national level:

    (a) Mechanisms for more efficient targeting and use of matching grants to stimulate private investment;

    (b) Approaches to management and operation of policy-based financing vehicles;

    (c) Practical tools and techniques for real-world market linkage facilitation, including the relatives roles of government, privates sector and other stakeholders;

    (d) The evolving role of government in private sector service market development;

    (e) Practical tools and approaches to incorporate considerations of inclusiveness and climate resilience into market-oriented agricultural development.

40. The themes could be clustered into three category level:

    (a) Policy. AIMS will invest in good quality, evidence-based knowledge management in order to contribute to policy development processes. AIMS also seeks to strengthen institutional capacity related to specific elements of its approach - for example in policy-based financing for sector development as well as trade research and facilitation. In this context, AIMS will support targeted institutional strengthening activities in specific areas. The KMC strategy will ensure that evidence-based policy analysis reaches key decision makers in digestible form, while also facilitating broad engagement of stakeholders in associated policy dialogue.

    (b) Management. The KMC strategy will ensure efficient sharing of knowledge within the project teams and among the participants of the priority value chains, especially via the MSPs. The management level will decide to further expand beyond e.g. Develop a Learning and Knowledge Management Platform with others projects.

    (c) Implementation. The strategy assists in building ownership, sharing information and facilitating the change in attitudes and behaviour that are needed to drive inclusive VC growth.

41. Others themes may emerge during the course of the project implementation.

42. Process and roles and responsibilities. The Strategy should indicate:

    (a) The process of Learning and KMC as how to include the knowledge products into the project reporting system as well how to disseminate them.

    (b) Roles and responsibilities of concerned staff.

43. Use and dissemination of the knowledge products.

    (a) National level. AIMS, apart from the project reporting system, may consider the use of the official website of line ministries and institutions, members of the Project Steering Committee. The project may use the website of the NCDD Secretariat that reaches the Sub National Administrations in the 25 provinces.

    (b) Sub-National level:

        (i) Farmers-to-Farmers

        (ii) MSPs

        (iii) District level. Under the authorities of the District Councils, in every district, one contracted staff is in charge of Information Technology.

        (iv) District and province. Through a cross learning forum with others projects. E.g. Provincial Extension Hub at provincial level (ASPIRE).

44. Training and Capacity Building is pivotal in ensuring an effective implementation of the KMC Strategy. The PMO with the assistance of the project Technical Assistance should provide training to the project staff at national and provincial level to enable them to:

(a) Generate, collect, use, disseminate and store the Knowledge products on timely manner and

(b) Master tools and formats introduced and

(c) Applications and software introduced by the project e.g. Facebook, Whatsapp, Agribuddy, GIS, SIMES.

Appendix 7: Financial management and disbursement arrangements

FM Risk Assessment and FM Capacity Assessment

Summary of Risk Assessment

1. During design, a Financial Management (FM) risk assessment has been completed in accordance with CFS guidelines. The assessment has been developed after visiting MEF, MoC-DICO, MAFF, NAA. It builds on the conclusion of the 2015 PEFA just completed by MEF as well as the 2014 Transparency International survey on the perceived level of corruption.

2. The 2015 PEFA discloses the "status of arts" in the organization of the Public Financial Management (PFM) function in the country highlighting results, issues and planned reforms to improve support to national development. This is the second PEFA after the 2010 one and it is possible to compare improvements and challenges.

3. Major improvements are recorded in the area of budget preparation, predictability of available resources, expenses control. On the other side reporting on use of public funds, disclosure of Government expenditures to the public and donor practices are weak areas where important progress is needed.

4. Corruption continues to be perceived as a major obstacle to efficient and equitable development. Very low salaries in the public sector increase the possibility of collusive practices at all levels. Salary incentives to project staff are generally seen as the only way to have projects well implemented.

5. MOC will be the AIMS lead implementing agency and will be in charge for the implementation of component 1 as well as main administrator of AIMS through DICO-PMO. MEF will be the agency in charge for the implementation of component 2. In MOC, financial management and procurement aspects of the project shall be managed by the Department of International Cooperation (DICO) which as per its institutional mandate, is in charge for the administration of all externally funded projects of MoC. In fact DICO, set-up approximately 10 years ago, is organized with all the units relevant for a coherent project's administration. Its structure includes six units: finance, procurement, administration, M&E, communication and implementation. These six units are currently managing 4 projects with Government staff and Advisors. The main one is planned to be completed in 2016. DICO capacity in project administration can complement the implementation and technical capacities of other Directorates of MoC, especially the Directorate Generate of Domestic Trade (DGDT) which shall be in charge for the AIMS implementation. MEF has a long experience in managing financial management and procurement arrangements for externally funded projects, so AIMS-PMO shall rely on these..

6. MEF shall need to closely coordinate with DICO-MoC to ensure efficient funds flow as well as set-up and maintain adequate reporting arrangements. implementation arrangements within MoC shall need to ensure that different teams of MoC operate smoothly together so that the best skills and capacities from within MOC are made available to support the successful implementation of AIMS.

7. Based on the combination of inherent risks with control risks, explained in detail in the following paragraphs, the overall risk rating assigned at this stage is **high** before any mitigation measures are put in place; it decreases to **medium** with the application of basic FM practices. Further analysis, especially in the control area, will need to be performed during the initial implementation phase. Risk mitigation measures are specifically described in the subsequent pages; the implementation of some of these may be considered as condition precedent to withdrawal.

Financial Management risk assessment

Inherent risks

8. The following review of Cambodia's public financial management system builds on the findings of the latest PEFA performed in Cambodia and published in December 2015 as well as extensive dialogue on the subject with MEF during the AIMS design.

9. The "Report of Evaluation on the Public Financial Management System in Cambodia" has been prepared internally by the "General Secretariat of the Steering Committee of the Public Financial Management Reform" of MEF and validated by an independent team under the coordination of IMF in accordance with the 2011 PEFA framework.

10. The fact the report has been prepared internally at MEF is extremely relevant as ensures full country ownership and recognition of its results, as well as the way forward to the improvement of areas in need. This is the second PEFA after the 2010 one and it concentrates on comparison of results between the two assessments where feasible, highlighting progresses and areas in need of improvement.

11. *Public Financial Management Overall Performance*. The Royal Government of Cambodia (RGC) initiated a comprehensive Public Financial Management Reform Programme (PFMRP) with the support of the Development Partners community. The overall objective of the programme is the strengthening of the governance framework through enhanced public financial management for effective service delivery.

12. The 2010 PEFA identified strengths including improvement in the national budget preparation process, increased predictability of budget funding and expansion in the use of single treasury account .The 2015 PEFA notes further improvements in the performance of the overall budget management process, from preparation to transfer of resources to Treasury and from there to the 38 line ministries and other public companies. The production of budget utilization reports is regular, however budget monitoring is undermined by the lack of use a unified chart of accounts and by the lack of detailed reporting on the implementation of externally funded projects which represents three quarters of the overall public investments totalling approximately USD 1.5 Billion per year in the last 4 years.

13. An element that facilitates deviation from policy objectives included in the annual budget proposal, are the frequent budget reallocations. Programme budgeting (PB) has been identified as the right tool to increase alignment between policy objectives and budget execution. After a pilot phase, now PB is going to be implemented in full in 18 line ministries from 2016 onwards, including MoC. MoC has planned the start of PB in 2016. In order to assess results it shall be necessary to have at least two or three full PB cycles concluded and reporting available.

14. Another element that facilitates deviation on the use of the budget from policy objectives and undermines an efficient use of resources, is the poor procurement monitoring system and the absence of an independent procurement complaint body. Delays in payment of suppliers are likely to impact the prices reducing value for money of public purchases.

15. Considering the country environment, the 2015 PEFA recognizes good progresses in the overall budget cycle, with a predominance of C+ ratings few A and few D with A be the best score and D the worse.

16. In terms of public accounting and reporting, substantial improvements are still necessary. The Law on State Budget System promulgated in 2008 describes the content of financial statements. Article 113 states that the annual financial statements should include: (i) a trial balance of accounts as per results of the account aggregation by public accountants, (ii) status of budget revenue, (iii) status of budgetary expenditures showing, for each ministerial department, the amount of expenditure per chapter certified by the relevant ministry, (iv) status of operations recorded in special Treasury accounts, (v) income statements.

17. Annual draft budget laws are prepared on the basis of the above legislation, and annual budget execution laws (known as budget settlement laws and effectively the annual financial statements) are first submitted by MEF (via Council of Ministers) to the NAA. In practice annual financial statements prepared by the General Department of National Treasury do not completely uniform to legislative requirements; are prepared on a modified cash basis of accounting; substantial bank balance are not disclosed and resources provided by external partners (approx. USD 1.5 Billion per year) and their use is not part of financial statements and not accounted for. These are quite substantial omissions that undermine the quality of the information provided (rating D). Submission of financial statements to Parliament for approval is quite timely (rating B). The overall accounting and reporting function is rated D.The financial statements for fiscal years 2012 and 2013 outline a deficit of expenditures of 2.4% and 3.1% respectively, while in 2014 was recorded a surplus of 6.1%. To improve the quality of the information contained in financial statements, there is the intention to introduce full use of IPSAS cash basis.

18. An important tool to support improvements in the accounting and reporting area is the introduction of a Financial Management Information System (FMIS). The first design of FMIS is dated 2006 and MEF started its operationalization in 2013 through a WB financed project. The first version went live in July 2015 in MEF selected offices. It is an ad hoc software created by a Vietnamese company, it is in English and is web based. The plan is to extend its use in MEF and deploy it to all line ministries. However its implementation is very complicated considering current business model of MEF which needs to be somehow revisited to match system requirements and best practices. Successful implementation of PB and FMIS represent the major challenges MEF will need to face in the forthcoming years.

19. The National Audit Authority (NAA) is the national supreme audit institution. Its mandate includes audit of all government institutions, including public owned or partially owned enterprises, totalling approximately 2000 audits per year. Except for the financial audit of national financial statements, NAA performs normally around 60 compliance audits per year in accordance with its risk based annual work program. Limitations in human and financial resources currently do not allow the expansion of NAA activities. They don't have any collaborations with private audit firms, except for training purposes. The NAA unit in charge of the audit for projects funded by developing partners performs 2 or 3 compliance audits per year (ADB projects). Its budget is answerable to the parliament as well as the government. Even if the Auditor General is nominated by the parliament and NAA reports to it, budget linkages with government (MEF) may affect negatively NAA independence and operations. Internal audit offices are set up in all line ministries (LMs), but the function needs substantial improvements both in terms of skills and staffing. Internal audit reports of LMs are submitted to NAA but not to MEF, only part of the recommendations issued are implemented and not timely. The overall score is C.

20. External aid finances a large part of public expenditures, until 2012 more than 50% now approximately 40%.Key challenges included in the 2014 "National Strategic Development Plan" include considerations on the fact that Cambodia is moving from grant to loan status to get financing for public sector investments(increase of public debt). Monitoring of debt is adequate given the moderate debt levels but risks for increased debt and its sustainability may arise in the medium term. The biggest external financier is China, with approximately 25% of total aid through loans (20 years duration, 7 years grace period, interest varying between 1.25% and 2%). Other important international partners are Japan and ADB (9% and 10% of total aid). IFAD is the third financier in the agricultural sector with 7.5% of the funding; the sector is dominated by China with massive investments in irrigation (45% of total funding available). As developing partner, IFAD contribution in 2014 was 1% of the total (15 out of 36 donors). Given the large deviations between annual approved budgets and projects disbursements, the predictability of disbursements from external financiers represents an issue for the Government.

21. All the donors make a limited use of country systems; many donors use certain government streams (20% use government procurement rules, 30% use national payment and accounting system, 30% use government systems for audit and reporting). Use of national procedures may increase upon full implementation of FMIS. The overall rating for donor practices remains D with no progress in comparison with the previous PEFA assessment.

22. The Public Financial Management (PFM) reform launched in 2004 obtained several results but significant challenges remain. Results include increase in revenue collection close to budget predictions, eliminated cash shortages, better cash management, improved budget preparation and management, financial decentralization, debt management, introduction of programme budgeting, increased use of treasury single account, use of the banking system to transfer Government funds to ministries, establishment of the internal audit function in all ministries. Challenges include full operationalization of FMIS and launch of the second phase of it, full implementation of programme budgeting, full integration of current expenditures, capital expenditures and development partners funds into the budget as well as in the reporting, improve accountability of line ministries through a stronger internal and external audit function.

23. Main recommendations issued as result of the PEFA assessment are in relation to the accounting and reporting area. Quality of in year budget reports should improve by including information on donor contribution in the period; annual financial statements should improve as now they only report on revenue and expenditures but other substantial information required by law are missing. Access to ASEAN isan opportunity to boost development. For Cambodia to start doing some monetary policy it is necessary to start de-dollarization and make its currency acceptable in all internal and external transactions.

24. 2015 PEFA report does not make any references to anticorruption practices in place, while the 2014 Transparency International perceived corruption index ranks Cambodia 156th out of 175 countries assessed with a score of 21/100. No major improvements recorded in respect of 2012 and 2013 surveys. Low salaries in the public sector increase the possibility of collusive practices at all levels.

25. As a result of the above mentioned shortcomings, the inherent fiduciary risk associated with the public financial management system is considered ***high.*** The following table summarizes the features of the public finance management system, based on the PEFA methodology:

Table 13: Features of the public finance management system (PEFA methodology)

Criteria	Assessment
Credibility of the budget **PEFA score: B**	• Increased alignment between actual expenditures and approved budget; • Still substantial misalignment between actual composition of expenditures and approved budget • Forecast of revenue to finance budget very realistic; • Monitoring and clearance of arrears remains an issue.
Comprehensiveness and transparency **PEFA score: C**	• Significant amount of unreported extra-budgetary operations remains, and the non-transparency of many donor-funded projects, potentially undermines the budget credibility; • There is no sufficient publicly disclosed information on the budget plans and budget execution;.
Policy-based Budgeting **PEFA score: C**	• While budget preparation is a participative exercise, there is still a lack of multi-year perspective in fiscal planning, expenditure policy and budgeting.
Predictability and control in budget execution **PEFA score: D**	• Taxation management remains problematic with limits in the organization of tax registration and tax payments; • Payroll controls and controls on non-salary expenditures (in particular the procurement function) remain areas were important improvements are required; • On a positive note, a public internal audit function is taking shape.
Accounting, recording and reporting **PEFA score: C**	• Reconciliations and production of reports are regular exercises, the quality needs to be improved as the information provided is not complete;. • The set-up of FMIS to keep national accounts is a great opportunity but important challenges for its full operationalization.
External Scrutiny and audit **PEFA score: D**	• The external audit function is start playing a more relevant role in holding the executive branch of government to account; • The National Audit Authority (NAA) does not publish its reports (making it difficult for the public to know whether public funds are being spent according to their intended purpose).
Donor Practices **PEFA score : D**	• Predictability of disbursement of funds it is a problem for the set-up of realistic budgets • Financial info provided by donors to RGC authorities is limited and incomplete; • The proportion of aid managed with full or partial use of country systems remains limited.

Financial management capacity of MEF and MoC-DICO

26. MEF is the strongest ministry in Cambodia in terms of financial management; it is the standard setter, the borrower representative in most of externally funded financing agreements and member of boards of international organizations representing Cambodia. No major issue is foreseen as MEF LPA for AIMS from a financial management point of view. Some challenges in the AIMS organizational arrangements may arise in the initial project implementation period. The set-up of the MEF-PMO, its operationalisation for the implementation of component 2 as

well as Lead Agency, its relationship with MoC (both DICO and DGDT) may affect smooth start of the projects.

27. The MoC-DICO was created in 2007 within the General Department of International Trade with the specific mandate of managing projects and programs financed by international partners.The set-up of the office has been conceived to accommodate projects and programs implementation need as well as partner's requirements. DICO has six different units, namely financial, procurement, communication, administration, monitoring and evaluation and implementation. All these units are staffed with civil servants supported by advisors hired on the market. The office has been organized following a program based approach, i.e. when new projects are approved, no specific project implementation units are created but the existing ones are reinforced with staff and advisors as necessary.

28. DICO has quite a long, even if limited, experience in managing externally funded projects; quite long because the management of the first project started in 2009, limited because the portfolio of projects administered by DICO is composed of only 4 initiatives since its creation. The biggest ongoing project, but with completion date in August 2016, is the "Trade Development Support Program" – TDSP, financed by WB for an amount of USD 15.5 Million. The other three projects in the portfolio are quite small in amount (respectively USD 1.2 Million, USD 0.3 Million, USD 0.3 Million), so the majority of the activities of DICO are linked to TDSP.RGC contribution to the current set of projects managed by DICO are in kind only.

29. All the projects part of the portfolio are managed at central level in the MoC Headquarters; However, MoC has provincial offices which include administration/finance staff.

30. In terms of budget, DICO access MoC budget only for the salary of Government staff assigned to the office. Projects managed are not an integral part of MoC budget. 2016 is the first year of full implementation of programme budgeting (PB) at MoC, but currently it is not foreseen the integration of projects managed by DICO in the PB of MoC.

31. DICO coordination with other departments of MoC is ensured through the monthly meetings of the "MoC Implementation Committee"; that is the venue where potential issues are mitigated as some donors prefer to work with other departments of MoC and other departments are as well keen to take on additional charges.

32. The units of DICO appear to be sufficiently skilled to manage the project administrative requirements of AIMS for the implementation of component 1 even if the support of a certain number of advisors is necessary. The finance unit, staffed with a finance manager, a finance advisor and two accountants, keeps the accounts for all projects using an accounting software named "Conical Hat" which has been procured few years ago. Its main feature consists on the possibility of maintaining accounts in multiple currencies. It supports the preparation of projects annual financial statements as well as per the production of quarterly reports submitted to donors and MEF. However the software is now obsolete and no support is available as the service provider is not anymore in the market. For the implementation of AIMS, DICO for financial management it shall be necessary procuring a new accounting software.

Control risks

33. Overall, AIMS will be operating in a rather high inherent risk environment due to weak public sector financial management systems as outlined in the PEFA analysis. The proposed financial management arrangements for the project incorporate measures intended to reduce such risks to acceptable levels and ensure that (i) the project funds are used for intended purposes in an efficient and effective way, (ii) reliable and timely financial reports are prepared, and (iii) project assets and resources are safeguarded from unauthorized or wasteful use.

Table 14: Summary of FM risks at design and mitigating actions

After mitigation, the overall project fiduciary risk decreases from **High to Medium.**

	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
Inherent Risk			
1. TI Index Index: **21** in 2014	**H** (**ranking 156** out of 175 countries)	-	**H**
2. RSP Score	**M** Score: **3.86** (2015)[32]	-	**M**
Control Risks			
1. Organization and Staffing	**M**	• Adequate staffing of AIMS PMO with clear JD and accountability lines • Contracting Technical Advisers at DICO (FM and Procurement) • Comprehensive, user-friendly PIM • Coordination between MEF and MoC	**L**
2. Budgeting	**M**	• Use of unified AWPB across the Project • Coding of activities for ease of tracking	**M**
3. Funds flow and Disbursement Arrangements	**H**	• Sound, rigorous cash flow planning • Rules for replenishment of project accounts	**M**
4. Internal Controls	**M**	• Segregation of fiduciary-sensitive duties • Periodic reconciliation of bank accounts • Restricting access to accounting files and documents • Periodic count of inventories and fixed assets	**M**
5. Accounting Systems, Policies & Procedures	**H**	• Use of same accounting software across the project. New software at DICO • Back-up of accounting records • Use of registry of fixed assets • Training of project accountants and delivery of back-stopping	**M**
6. Reporting and monitoring	**M**	• PIM to detail reporting and monitoring requirements and rules • Accounting to generate automated, consolidated financial reports and smart SOEs	**M**
7. Internal Audit	**H**	• Appointment of an internal auditor company for annual reviews • Project management to act on internal audit findings and recommendations	**M**
8. External Audit	**M**	• Appointment of an external auditor on the basis of TOR agreeable to IFAD	**L**
Project Fiduciary Risk @ Design	**H**		**M**

[32] http://www.ifad.org/operations/pbas/

AIMS Financial Management and Disbursement arrangements

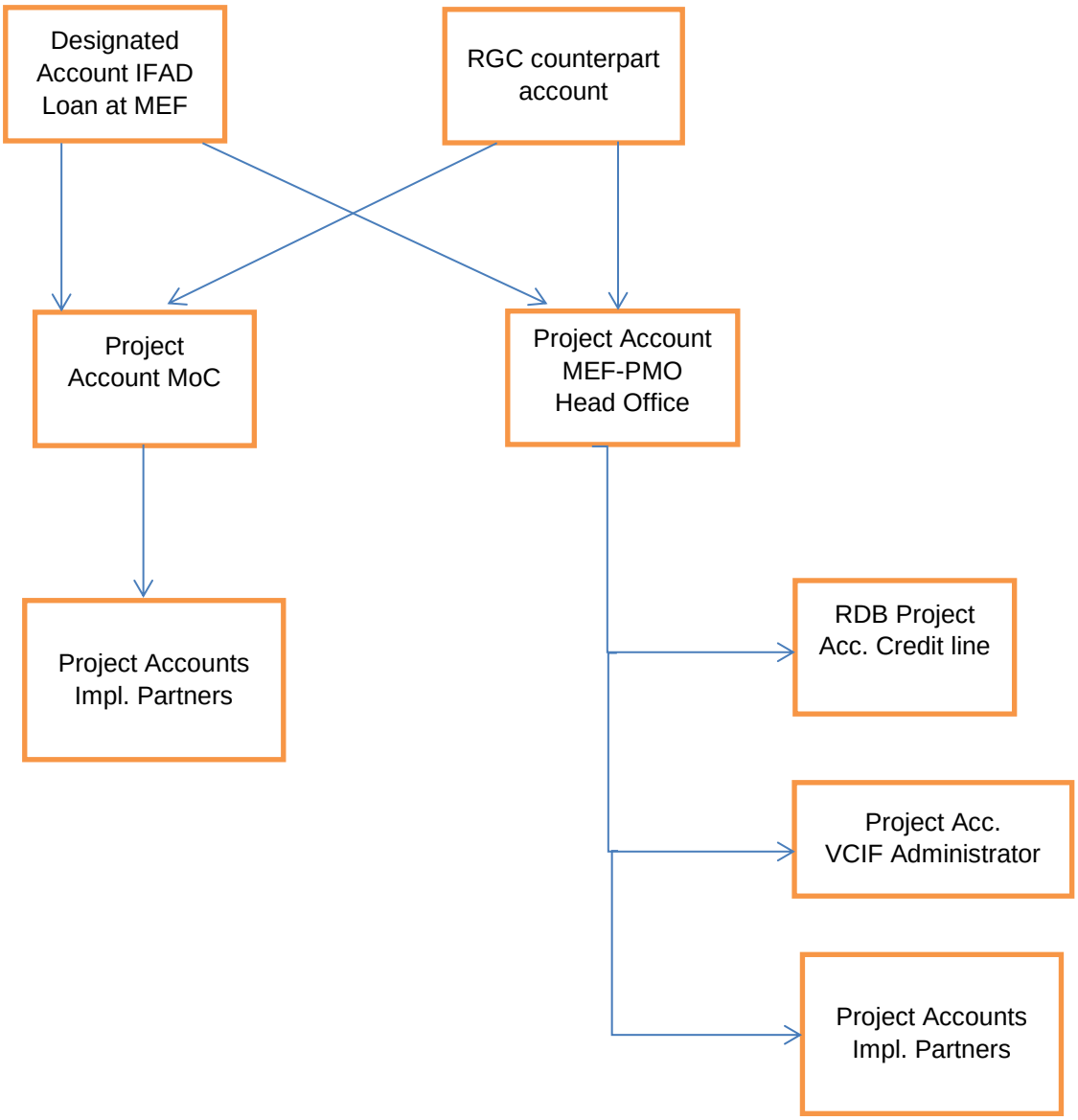
34. Given AIMS implementation arrangements which foresee the set-up of a PMO in MOC for overall coordination and implementation of component 1 and MEF responsible for the implementation of component 2, financial management arrangements shall consider the specificities of the two implementing agencies.

35. **Budgeting**. In case DICO of MoC shall coordinate the annual exercise for budget preparation. Procedures currently used for the preparation of other project budget shall be applied. The form would be a “Result based activity budget”. Basically, with this form of budget the budget formulation revolves around a set of predefined objectives and results; the results expected require resources for their implementation; implementation is monitored through performance indicators. MEF-PMO shall transmit it’s budget proposal for consolidation purposes. For other implementation partners at central and provincial level, relevant input shall be considered for the finalization of the annual plan. The AWPB will be subject to the approval of the Project Steering Committee and submitted to IFAD for non-objection at least 2 months before the start of the fiscal year. Once approved, the annual budget shall be input in the budget module of the accounting software to allow systematic management and monitoring of it.

36. **Disbursement arrangements and Flow of Funds**. MEF shall open and maintain one Designated Accounts in USD in the National Bank of Cambodia to receive the IFAD Loan proceeds from the Loan Account maintained by IFAD (IFAD DA) and one Account in USD to receive and manage the Government Counterpart Funds (RGC Counterpart DA) for the project. MoC shall open a project bank account to for the implementation of component 1 and MEF-PMO shall open a project bank account for the implementation of coordination activities as well as implementation of component 2. Transfer from the IFAD DA and the RGC Counterpart DA to MEF-PMO shall be managed by DICO. All project bank accounts shall be open in banks acceptable to RGC and IFAD.

37. Designated accounts shall be managed using the Revolving Fund methodology; IFAD shall advance funds from the Loan Account to the Designated Account based on an approved annual work plan and budget (AWPB) and cash flow projection for six months planned activities. The release of subsequent advances shall be based on the justification of 75% of the last advance and 100% of all preceding advances. MEF shall transfer the Government counterpart funds to the Counterpart Funds Account based on the same approved AWPB on a six monthly basis. Accordingly, the flow of funds shall be as per the diagram below.

Figure 20: Fund flow



38. DICO-PMO shall submit withdrawal applications (WAs) on a quarterly basis justifying the advances received based on expenditures reports. Other WAs shall be submitted to IFAD to request further advances, based on the approved AWPB. Such withdrawal applications shall be prepared in accordance with IFAD requirements with SOEs thresholds fixed at USD 50 000 for all cost categories. All expenditures above the established thresholds shall be accompanied by related supporting documentation, as well as all expenditures of every amount related to contracts of value exceeding USD 50 000. The DICO-PMO shall prepare and submit withdrawal applications to IFAD on a timely basis within 15 days after the end of each quarter starting from the first quarter after the first disbursement is made or when the required amount is minimum USD 2million.

39. **Internal controls**. Procedures and record maintenance at all level will be properly documented in the PIM and consistently applied. The PIM shall include specific provisions regulating the setting up of internal controls, effective monitoring and review of transactions, accounting software requirements and include all other Financial Management practices with guidance

notes. FM Advisors will play an important role in the overall process. A system of joint signatory for operating the bank accounts or appropriate authorization processes shall have to be introduced. Detailed procedures for adequate recording, management and safeguard of project fixed assets shall be disclosed in the PIM.

40. **Accounting systems, policies, procedures and financial reporting**. DICO-PMO shall procure an accounting software which will be customised to generate financial reports for RGC and for IFAD respecting specific reporting requirements. The customisation will be in such a way to be able to consolidate MOC and MEF transactions, disclose funds use by component, sub-component, cost category and each of the funding sources to be collated through the software. Customization will also include reference to the RGC's Chart of Account (COA). Budgetary control at activity level to be incorporated. The accounting software has to be customised to generate required financial statements and other reports, including the so called "smart SOEs". The current accounting software used in MoC DICO, which became obsolete, shall need to be substituted with a new one. The overall accounting of AIMS will be done through a computerised accounting software at all levels. AIMS-PMO-MEF, using its existing accounting and reporting facility, will transmit monthly financial reports to DICO-PMU for consolidation. Other implementing agencies involved in AIMS shall install/use an accounting software, submit Monthly Financial Progress Reports to the DICO-PMO electronically. DICO-PMO will consolidate data received and will be the entry contact point with IFAD. DICO-PMO will prepare annual consolidated financial statements including data provided by other implementing agencies. DICO-PMO, AIMS-PMO-MEF and Implementing Agencies shall apply cash basis accounting principles in accordance with the updated Standard Operating Procedures (SOP) for externally financed projects/programmes in Cambodia, issued by MEF, as per Sub-Decree No. 74 ANK. BK dated 22 May 2012, on the condition that these procedures are adequately adjusted to accommodate any specific financial management requirements of AIMS and IFAD.

41. RDB and the VCIF Administrator financial statements shall provide additional information; this includes rate of utilization of AIMS resources, rate of delinquency on AIMS financed loans, a balance sheet, recognition of financial and non-financial assets and liabilities, an income statement where recognise possible provisions for credit losses, A cash-flow statement, notes accompanying the financial statements with special emphasis to be placed on the analysis of the performance of loans financed with AIMS proceeds, rate of repayment, rate of delinquency, specific information on portfolio at risk.

42. **Internal Audit**. As DICO-PMO and AIMS PMO-MEF will be a part of the respective ministries, these will be subject to the activities of the MOC and MEF Internal Auditor Office. In order to have more specific support, DICO-PMO, on an annual basis will contract a private internal audit firm to perform internal controls review all over the project implementing agencies and AIMS-MEF-PMO, proposes improvements and issue recommendations. Implementation of such recommendations shall be monitored during the following exercise. Main duties to be stipulated in the TORs will include monitoring and review of the financial systems and procedures, their application and adherence to the PIM, support the introduction of administrative efficiencies. It would be a good practice to brief the appointed external auditors on the project components, methods of implementation, monitoring arrangements, etc. so that they could deliver the reports effectively. Reports prepared by the internal audit firm will be submitted to the attention of the Project Steering Committee, NAA and forwarded to IFAD.

43. **External Financial Audit**. Proper set-up of audit TORs will be a key safeguard for all stakeholders. A single private auditor will be hired for the overall annual audit of AIMS (both MOC and MEF) given that NAA expertise is mainly in compliance audit. Discussions are ongoing with MEF for the use of private firms pre-selected at ministerial level for other externally funded projects in Cambodia. During implementation could be possible to start a

dialogue with NAA for possible inclusion of AIMS in their future program of work, in case it is decided the performance of compliance audits.

44. In case the audit is not performed by MEF preselected firms, the audit firm will be competitively selected through Quality and Cost Based Selection method of procurement with a weighting of 70:30 for quality and cost. The cost of the audit shall be paid from the project proceeds. The firm shall audit the project's consolidated annual financial statements in accordance with International Standards on Auditing complemented by terms of reference (TORs) cleared by IFAD. The auditor shall issue separate opinions covering the financial statements, statements of expenditures, management of designated account and project bank accounts as well as a management letter outlining any internal control weaknesses and recommended remedies. More particularly, the auditor must ascertain that the information included in the annual financial statements are correct, reliable, and present a true and fair description of the project financial position. The management letter will provide an update on the status of implementation of audit recommendations issued in previous years.

45. TORs for possible audit firm preselected by MEF shall be submitted to IFAD for comments and concurrence.

46. RDB and the VCIF Administrator shall submit AIMS audited financial statements to DICO-PMO within four month after the financial year end. In addition, AIMS Auditors shall have direct access to RDB AIMS project records as well VCIF Administrator AIMS project records for verification purposes.

47. The audited financial statements and audit report shall be submitted to IFAD within six months after the end of each fiscal year and by the project closing date. The implementation status of the audit recommendations shall be provided by each institution on a quarterly report to be submitted to the DICO-PMO and forwarded to IFAD.

48. **Taxes**. The proceeds of the IFAD financing may not be used to pay taxes which will be part of the contribution of RGC to the project. Social security benefits (employee's portion) and income tax (employee deductions) are eligible for IFAD financing.

Appendix 8: Procurement

1. Of the several assessments of Cambodia's public procurement systems, two of which were in the health and education sectors concluding that these procurement systems "are not yet at the point where they can be relied on". The World Bank External Advisory Panel Report (EAPR) on the Public Financial Management Reform Programme, (February 2010) indicated that procurement by the RGOC is regarded as "being some way off from international standards.

2. While noting the above, significant progress has been made by the RGOC on strengthening its national procurement systems. The Law on Public Procurement Number NS/RKM/0112/004, was enacted since 14 January 2012, governing public procurement in Cambodia. However, the legal framework adopted in the law does not appear to be a comprehensive law that development partners have been insisting on. Procurement planning, implementation monitoring and procurement methods for all acquisitions by state agencies and institutions are ignored by the legislation. The new law also does not provide for any investigation or complaints procedures. The provisions of the law will prevail in case there is conflict with other provisions under the Sub Decrees; the current regulatory frame work governing public procurement consists of a number of Sub Decrees.

3. The updated Standard Procedures for Implementing All Externally Financed Projects/Programs promulgated under Sub-Decree No. 74 ANK/BK on 22 May 2012 replaces the Standard Procedures for implementing the Asian Development Bank and the World Bank Financed Projects/Programs in Cambodia, which was promulgated by the Sub-Decree No. 14 RNK/BK, dated 26th February, 2007, and comprise of (i) Updated Standard Operating Procedures for All Externally Financed Projects/Programs in Cambodia, (ii) Updated Procurement Manual for All Externally Financed Projects/Programs in Cambodia and (iii) Updated Financial Management Manual for All Externally Financed Projects/ Programs in Cambodia.

4. The Standard Operating Procedures (SOP) Manual contains guidelines to facilitate the management and administration of RGOC's portfolio of externally assisted projects, programs or technical assistance consisting of credits/loans and/or grants under the purview of the Ministry of Economy and Finance (MEF). This Manual is intended for use by all line ministries, as well as other agencies of the RGOC, charged with the responsibility for implementing externally assisted projects that come under the purview of the MEF. The SOP's also complements special provisions of the RGOC on the use of external resources.

5. The Procurement Manual Volume I clarifies the institutional roles, responsibilities, and accountabilities, as well as streamlining related procedures and interactions among the institutions involved. This Procurement Manual is well structured and each step of procurement process i.e. packaging procurement, planning, preparation of specification/TOR, preparing bidding documents, the bidding process, opening, evaluation, award of contract, contract management, termination of contract, amendment, record management etc are detailed in volume one. While Volume II of the Procurement Manual details the biddings documents for works, goods and services separately and are in line to donor standard bidding documents; allow the bidder the required minimum time to obtain documents and bid preparation.

6. The Sub Decree No. 74/ANK/BK under which this Procurement Manual for Externally Financed Projects/Programs in Cambodia has been promulgated on 22 May 2012 will apply to all externally assisted projects and programs where the DPs have agreed to its use.

7. The 2015 Public Financial Management Performance Report produced by the World Bank summarises the inherent country fiduciary risk as "high'' which includes an overall "high" procurement risk due to non-transparent procurement and no independent procurement review body has been established among other factors. Additionally the monitoring of compliance with procurement regulations is hampered by lack of data which include a numbers of weaknesses

of the internal control systems in procurement. The current assessment of the procurement capacity of the MoC and DICO, the Lead Agency and Unit for carrying out procurement under AIMS is described under Annex 1.

Procurement and other arrangements under AIMS

8. Procurement under the Project shall be carried out in accordance with the updated Standard Procedures for Implementing All Externally Financed Projects/Programs promulgated under Sub-Decree No. 74 ANK/BK dated 08 June 2012 comprised) Updated Procurement Manual for All Externally Financed Projects/Programs in Cambodia as long it is consistent with IFAD Project Procurement Guidelines and Project Procurement Handbook

9. The procurement responsibilities would be managed by the Implementing Agencies as designated by the Project, for the overall project and under Component 1 – MoC DICO and under Component 2 – by a unit to be identified by MEF with the exception of procurement under the VC Innovation Fund and line of credit to RDB.

10. As per IFAD's Procurement Guidelines, IFAD review of and no objection to the Project Procurement Plans shall be compulsory, and any changes and amendments to the procurement plan shall be subject to IFAD's No Objection; the plans submitted by AIMS PMO must include as a minimum:

    (a) A brief description of each procurement activity to be undertaken during the period and name of the implementing agency responsible for the procurement;

    (b) The estimate value of each procurement activity;

    (c) The method of procurement to be adopted for each procurement activity and.;

    (d) The method of review IFAD will undertake for each procurement activity indicating either post review or prior review.

11. All procurement of goods, works and services financed from IFAD funds under the Project shall require the inclusion of a provision requiring suppliers, contractors and consultants to permit IFAD and the RGOC to inspect their accounts, records and other documents relating to the procurement and contract performance, and to have them audited..

12. The Project includes a number of actions to strengthen procurement capacity of MOC DICO and mitigate procurement risks. In terms of strengthening it capacity, the programme shall recruit a fulltime Procurement Specialist/Consultant for the initial periods of the Project and subsequently as on needs basis. Resources have also been made available to institutionalise capacity development activities in response to the efforts of RGOC in enabling and enhancing the capacity of its staff in undertaking and managing public procurement. An external accredited certification course on public procurement offered by UNDP in collaboration and partnership with the Chartered Institute of Purchasing and Supply (CIPS) which assures compliance with high international qualification standards as well as offering participants access to a world-wide community of procurement professionals. The details of the courses offered and its fees are available on the UNDP website as referenced (www.undp.org/content/undp/en/home/operations/procurement/procurement_training.html)

13. The above courses have been awarded the European Supply Chain Excellence Awards are accredited Programme with specific strategic focus on procurement shifting from a compliance exercise to a value-adding business functions.

14. The PIM shall outline and establish the projects internal control framework defined as the project level Good Governance Framework, structured around procurement; financial management; disclosure; civil society role; code of ethical conduct; sanctions and project specific elements. This would include measures to address key control gaps existing within the current procurement process. Additionally an accounting system would also a vendor and

contract management system, which will track contract performance and disbursement to vendors.

15. The application of different methods of procurement for goods, works and services will be in accordance with the methods of procurement for goods, works and services (non-consulting) as established and approved in the Procurement Plan. Unapproved variations and non-compliance would be considered as mis-procurement.

16. **Consultants and Service Providers**. Consulting service will include programme management technical assistance, implementation support technical assistance for different components, conducting studies, mobilisation/establishment of community groups, technical training and strengthening of community groups, and monitoring and evaluation. Consulting Services would be provided by consulting firms, non-government organisation and individual consultants.

17. Consultancy and Services: Each contract for the selection of consultancy services, shall be selected in accordance with any one of the selection methods as per the IFAD Project Procurement Guidelines and its Project Procurement Handbook as listed below:

    (a) Quality and Cost Based Selection

    (b) Fixed Budget Selection

    (c) Least Cost Selection

    (d) Selection Based on Consultants Qualification

18. Selection of individual consultants: Individual consultants are selected on the basis of their qualifications for the assignment of at least three candidates among those who have expressed interest in the assignment or have been approached directly by the MOC or other Implementing partners. Individuals employed by the MOC DICO and the Implementing Agencies/Partners shall meet all relevant qualifications and capacity requirements in carrying out the assignment. This is determined and assessed on the basis of academic background, experience and, as appropriate, knowledge of the local conditions, such as local language, culture, administrative system, and government organization. May also include written test and interviews.

19. Individual consultants or consultancy firms may be selected on a sole-source basis with due justification in exceptional cases such as: (a) tasks that are a continuation of previous work that the consultant has carried out and for which the consultant was selected competitively; (b) assignments lasting less than six months; (c) emergency situations resulting from natural disasters; and (d) when the individual consultant is the only consultant qualified for the assignment.

20. **The Sector Development Facilities (SDF)** Guidelines shall govern the contracting of IFAD proceeds under a Private Public Partnership Framework/ Model unless these resources are used by MOC to procure goods, civil works and consultancy services which would then be governed by the SOPs and the IFAD Procurement Guidelines.

21. The Value Chain Innovation Fund under sub-component 2.1 would be governed by the Fund Agreement with the appointed fund manager and procedures shall be outlined in a VCIF Administration Guidelines. The Line of Credit to RDB shall be governed by a Memorandum of Agreement, or similar instrument between MEF and RDB.

Review of Procurement Decisions by IFAD

22. As an additional risk mitigation measure, IFAD will undertake to review the provisions for the procurement of good, works and services to ensure that the procurement process is carried out in conformity with SOP consistent with IFAD's Procurement Guidelines. For the purposes of IFAD's Procurement Guidelines, the following procurement decisions (applicable) shall be subject to prior review by IFAD for the award of any contract for goods, equipment, materials, works, consultancy and services under AIMS:

(a) Procurement of goods, materials and works

(i) Prequalification documents and shortlist when prequalification is undertaken;

(ii) Bid Documents for goods, materials and works;

(iii) Evaluation Report and Recommendation for Award; and

(iv) Contract and amendments.

(b) Procurement of consultancy services and services

(i) Prequalification documents and shortlist when prequalification is undertaken;

(ii) Request for Proposal;

(iii) Technical evaluation report;

(iv) Combined (technical and financial) evaluation report and the recommendation for award; and

(v) Contract and amendments.

(c) Procurement of individuals consultants

(d) The Terms of Reference of the Assignment

(e) The Evaluation Report and recommendation for selection

(f) Contract and amendments

Prior or Post Review

23. Except as IFAD may otherwise agree, the prior or post which applies to various procurement of good, works and consultant recruitments shall be defined as follows:

Procurement Method	Prior or Post	Comments
Procurement of Goods and Services (non-consulting)		
ICB	Prior	All Contracts
NCB	Prior	Except procurement valued below USD 50,000
Shopping	Post	All Contracts
Direct Goods	Prior	Except procurement valued below USD 2,000
Recruitment of Consulting Firms		
Quality and Cost-Based Selection (QCBS); Fixed Budget Selection (FBS); Least Cost Selection (LCS); Selection Based on Consultants Qualification (CQS)	Prior	Except procurement valued below USD 30,000
Sole Source Selection (Single Source Selection)	Prior	All contracts except for exception covered by paragraph 19
Recruitment of Individual Consultants		
Individual Consultants (Single Source Selection)	Prior	Except or as per provisions covered by paragraph 19
Individual Consultants (Competitive Selection Process)	Prior	Except procurement valued below USD 20,000

24. Additionally the following contracts under the Sector Development Facilities (SDF) Guidelines and the Value Chain Innovation Fund Administration Manual, shall be subject to prior review by IFAD for the award of any contract under AIMS.

Investment	Prior or Post	Comments
SDF Proposal/Business Plans	Prior	First two proposals by each Province every year. Thereafter any proposal valued above USD 30,000
VCIF Window 1 Investment	Prior	First 10 business plans by each District every year.
VCIF Window 2 Investment	Prior	First 4 business plans by each Province every year.
VCIF Window 3 Investment	Prior	All Investment Business Plans

Governance And Anti-Corruption (GAC)

25. Anticorruption measures will include (a) undertake necessary measures to create and sustain a corruption-free environment for activities under the Project; (b) institute, maintain and ensure compliance with internal procedures and controls for activities under the Project, following international best practice standards for the purpose of preventing corruption, money laundering activities, and the financing of terrorists, and shall require all relevant ministries and agencies to refrain from engaging in any such activities; (c) comply with requirements of IFAD's Policy on Preventing Fraud and Corruption in Its Activities and Operations (2005, as amended to date); (d) ensure that the Good Governance Framework is implemented in a timely manner. is actively engaged to allow potential Project beneficiaries and other stakeholders to channel and address any complaints they may have on the implementation of the Project.

Appendix 9: Project cost and financing

Main Assumptions

1. AIMS is to be financed over a six-year period (2017-2022). Costs have been estimated on the basis of prices prevailing at the time of detailed design mission in April 2016. Information collected during the design missions provided the key parameters for the Project costs. Data collected have been checked for consistency with average costs of goods and services in Cambodia.

Economic growth, Inflation, Contingencies and Exchange Rates

2. **Economic growth**. Cambodia has experienced strong economic growth over the last decade. Cambodian GDP grew at an average annual rate of over 8% between 2000 and 2010 and at least 7% since 2011. With 6.9% GDP growth in 2015 failing for the first time under 7%, largely due to the tourism, garment, construction and real estate, and agriculture sectors accounted for the bulk of growth. Cambodia remains one of the poorest countries in Asia and long-term economic development remains a daunting challenge, inhibited by endemic corruption, limited educational opportunities, high income inequality, and poor job prospects. As of 2012, approximately 2.66 million people live on less than $1.20 per day, and 37% of Cambodian children under the age of 5 suffer from chronic malnutrition. More than 50% of the population is less than 25 years old. The population lacks education and productive skills, particularly in the impoverished countryside, which also lacks basic infrastructure.

3. The outlook for 2016 and beyond is that the real GDP growth will recover to 7.3% this year, before strengthening further to an average of 7.6% a year in 2017-20. Under the assumption that the heightened tensions between the political parties will not result in a renewal of mass protests, inflows of tourist dollars and foreign investment are expected to remain robust, although a softening in overall investment activity is likely in the pre-election period. Stronger industrial output resulting from more stable labour relations in the crucial garment industry will also help to underpin rapid headline GDP growth. The number of man-days lost to strikes fell by a further 14% in 2015, after having peaked in 2013.

4. **Inflation rates.** Consumer price inflation is projected to accelerate from an average of 1.2% in 2015 to 1.8% this year, owing to stronger demand-pull pressures and low year-on-year base effects. Inflationary pressures will be more pronounced in 2017-18, when a modest recovery in global oil prices is expected, especially since Cambodia imports all of its oil needs. Overall, consumer prices are forecasted to increase by 3.3% a year on average in 2017-20

5. **Contingencies.** Price contingencies have been applied on all costs. A local inflation rate of 3.3% and an average foreign inflation rate of 1.9% is applied for the analysis for the Project period 2017-2022. Both local and foreign inflation rates are shown in Table 1.

Table 15: Inflation rates

	2015	April 2016	2017	2018	2019	2020
Local	1.2%	1.8%	3.3%	3.3%	3.3%	3.3%
Foreign	0.5%	1.3%	2%	2.4%	1.5%	1.8%

Source: EIU Cambodia Q1 2016 country report.

6. Physical contingencies have been considered in case of shocks that may emerge during implementation. A physical contingency of 4% has been applied to items for which the required amounts could not be reasonably estimated, i.e. works.

7. **Exchange Rate.** The Cambodian Riel(KHR) has strengthened against the US dollar in the first few months of 2016. Supported by lower global oil prices and more moderate market

expectations on the pace of interest-rate rises in the US. This upward trend is expected (by EIU) to continue throughout the rest of the year to appreciate against the US dollar, from an average of KHR4,068:US$1 in 2015 to KHR3,909:US$1 in 2020.

8. For the purpose of this analysis and in consideration of the high level of dollarisation in the economy, most of the unit cost costs have been calculated in USD. The exchange rate has been set to KHR 4000 to USD 1 (at data collection and negotiation).

9. **Taxes and Duties.** Taxes and duties have been estimated using information provided by the General Department of Taxation and the Ministry of Economy &Finance. Import duties and value added tax (VAT) are applied where appropriate. VAT of 10% is levied on all imported and locally procured goods and services. Taxes on imported vehicles also include import duties and excises. The vehicles imported under AIMS (four wheel drive exceeding 3000 cc) would fall in the highest tax category, being 110% (import duty 35%, standard tax 65%, VAT 10%). International technical assistance does not carry any taxes while training activities are taxed only with VAT. Almost all agricultural items to be imported for the Project are import duty exempt. A flat rate of 10% is imposed on all equipment and materials.

10. The Government will waive duties, excises and taxes or will finance the cost of all taxes on goods procured under the Project. Taxes and duties applied in Project costing – displayed by expenditure category – are summarized in Table 16..

Table 16: Taxes, duties and foreign exchange by expenditure category

Expenditure category	Tax	Taxes/duties	Foreign Exchange
Consultancies	10%		20%
Equipment & Materials	10%	0.1%	20%
Salaries & Allowances	15%	-	0%
Training	10%		20%
Vehicles	10%	100%	100%
Operating costs	10%		10%
Works	10%	0.1%	30%

Project Costs

11. Total Project costs including price and physical contingencies, duties and taxes are estimated at USD 61.3 million over the six-year Project implementation period.

12. Of this amount about USD 1.4 million (2.2% of total project costs) represents the foreign exchange component, USD 1.7 million (2.8%) are duties and taxes. Total base costs amount USD 59.4 million, while physical and price contingencies are estimated to add another USD 2.4 million (4.1% of the base costs) to this amount. Investment costs account for 90.7% of the base costs (and recurrent costs for remaining 9.3%). Project investments are organized into three components: (i) Value Chain Development; (ii) Value Chain Financing; and (iii) Project management. The first component consists of three sub-components, being: (i) Value-Chain Facilitation & Brokering; (ii) Market-Oriented Social Mobilizers and; (iii) Sector Investment Facility. The second component comprises two sub-components, being (i) Value Chain Investment Support; and; (ii) Financial Service Partnerships. The third component is made of two sub-components, being: (i) Project management and; (ii) Planning, Monitoring & Evaluation and Knowledge Management. Funds allocated to Project management and coordination[33] amount to about USD 1.1 million equivalent to 1.8% of total project costs. A summary breakdown of the Project costs by component and sub-component is shown in Table 17.

[33] Costs associated with the regional hub offices are not included here as they are included in Component 1 costs.

Table 17: Project Costs Summary by Year and by Component (million USD)

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Project Components by Year -- Totals Including Contingencies
(USD '000)

	Totals Including Contingencies						
	2017	2018	2019	2020	2021	2022	Total
A. Value Chain Development							
1. Value Chain Facilitation Brokering and Sector Development Facility	1 413	1 993	3 792	4 455	3 645	1 272	16 570
2. Market-oriented social mobilizers	305	725	1 145	1 155	612	566	4 507
Subtotal	1 718	2 718	4 937	5 610	4 257	1 837	21 077
B. Value Chain Financing	2 071	7 370	11 123	9 404	7 650	133	37 751
C. Project Management (PMU)							
1. Know ledge Management, Planning and M&E	288	326	334	196	178	375	1 697
2. Project coordination	263	178	169	174	138	165	1 088
Subtotal	552	504	503	369	316	541	2 785
Total PROJECT COSTS	4 341	10 592	16 563	15 384	12 223	2 510	61 613

Project Costs by Expenditure Categories

13. The expenditure accounts are based on the standardisation that IFAD is adopting after phasing in its Loan and Grants System. The largest expenditure category among investment costs is represented by grants (57.3% of total base investment costs). A summary breakdown of the Project costs by expenditure category is shown in Table 18.

Table 18: Project Costs by Expenditure Categories

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Expenditure Accounts by Years -- Base Costs
(USD '000)

	Base Cost						Foreign Exchange		
	2017	2018	2019	2020	2021	2022	Total	%	Amount
I. Investment Costs									
A. Consultant	501	643	509	374	266	332	2 624	20.1	527
B. Consultant - Study	70	115	235	160	140	250	970	26.3	255
C. Credit	450	1 700	2 600	2 100	1 650	-	8 500	-	-
D. Grant	1 399	5 933	10 287	9 753	7 925	-	35 296	-	-
E. Trainning	123	253	421	441	214	106	1 558	15.9	247
F. Trainning - Service	302	704	1 092	1 082	562	510	4 252	-	-
G. Trainning - Workshop	89	129	165	147	154	154	837	19.1	160
H. Trainning - Material	1	1	1	1	1	21	28	30.0	8
I. Vehicle & Equipment	709	-	-	3	-	-	712	15.0	107
Total Investment Costs	3 643	9 478	15 310	14 061	10 912	1 373	54 777	2.4	1 304
II. Recurrent Costs									
A. Opearating Cost	575	848	828	828	828	758	4 665	-	-
Total Recurrent Costs	575	848	828	828	828	758	4 665	-	-
Total BASELINE COSTS	4 218	10 326	16 139	14 889	11 740	2 132	59 443	2.2	1 304
Physical Contingencies	95	137	136	136	135	133	772	1.1	8
Price Contingencies									
Inflation									
Local	43	214	483	608	596	402	2 347	-	-
Foreign	3	7	13	14	13	21	70	100.0	70
Subtotal Inflation	46	221	496	622	609	423	2 416	2.9	70
Devaluation	-18	-91	-207	-263	-261	-177	-1 018	-	-
Subtotal Price Contingencies	28	130	288	359	348	246	1 399	5.0	70
Total PROJECT COSTS	4 341	10 592	16 563	15 384	12 223	2 510	61 613	2.2	1 382
Taxes	237	287	353	335	246	247	1 705	-	-
Foreign Exchange	281	234	274	222	160	211	1 382	-	-

Project Financing

14. AIMS is to be financed by the RGC, IFAD-loan and Private sector (including beneficiaries and private businesses). IFAD will finance 58.8% (USD 36.3 million) of the Project costs as a loan to the RGC. The government will finance USD 8.7 million, representing 14% of total costs.

15. Project beneficiaries are expected to contribute USD 8.1 million (13.2%) and private businesses are expected to contribute USD8.6 million (13.9%).

16. The proposed financing plan is summarised in Table 19.

Table 19: Project Financing Plan (000 USD)

Kingdom of Cambodia
Accelerating Inclusive Markets for Smallholders Project
Components by Financiers
(USD '000)

	RGC		IFAD LOAN		Beneficary Contribution		Private Business Co-funding		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Value Chain Development										
1. Value Chain Facilitation Brokering and Sector Development Facility	4 556	27.5	11 740	70.9	273	1.7	-	-	16 570	26.9
2. Market-oriented social mobilizers	2 254	50.0	2 254	50.0	-	-	-	-	4 507	7.3
Subtotal	6 810	32.3	13 994	66.4	273	1.3	-	-	21 077	34.2
B. Value Chain Financing	602	1.6	20 721	54.9	7 843	20.8	8 586	22.7	37 751	61.3
C. Project Management (PMU)										
1. Know ledge Management, Planning and M&E	707	41.6	990	58.4	-	-	-	-	1 697	2.8
2. Project coordination	537	49.3	551	50.7	-	-	-	-	1 088	1.8
Subtotal	1 243	44.6	1 542	55.4	-	-	-	-	2 785	4.5
Total PROJECT COSTS	8 654	14.0	36 257	58.8	8 116	13.2	8 586	13.9	61 613	100.0

Appendix 10: Economic and Financial Analysis

FINANCIAL ANALYSIS

Objectives & scope

1. The objectives of this financial analysis are: (i) to assess the financial viability of the development interventions promoted under AIMS; (ii) to examine the impact of Project interventions on the net incomes of the households (HHs) targeted; and (iii) to provide the basis for the economic analysis of the Project.

Assumptions

2. The following assumptions underlie the financial analysis of the Project:

   (a) Cambodia has a total land area of 176,500 square kilometers. Most of the country is characterized by low, flat plains dominated by the Mekong River and Tonle Sap Lake in the central part of the country. The Dangrek Mountains form the northern border with Thailand and the Cardamon Mountains cross the southwestern part of the country. Cambodia is divided into four Agro-Ecological Zones (AEZ)—the Tonle Sap plain, Mekong plain, Mountains / plateau and coast—representing heterogeneous agricultural activities, according to the population and livelihood systems (UNDP 2011) and (Cambodian Agricultural Census, 2015). For the purpose of the analysis, the AEZs are used to define realistic standard size farm with most common crowing patterns for each zone.

   (b) The use of irrigation is low and is primarily focussed on large rice irrigation structures. The country has a tropical monsoon climate with high levels of rainfall in 4-5 months a year. About 30% of the country‘s land is agricultural and 7% of cropland is irrigated. Over half of the country‘s area (59%) is forested; deforestation is occurring at an annual rate of 1.3%. Land expansion is assumed at zero.

   (c) The national average land holding in Cambodia is 1.3 ha per household, with great variations throughout the country (Cambodian Inter-Censal Population survey, 2013). For the analysis three different farm models are defined each corresponding to an EAZ. Farm 1: Mountainous Zone; Farm 2 Tonle Sap Zone; and Farm 3 Mekong Plain Zone each with their own standard size and cropping pattern.

   (d) The target HHs in the Project area practice rain-fed agriculture, producing rice and/or cassava as main staple, complemented with a small selection of various vegetables, under manual irrigation. The Tonle Sap zone is different in having more tree corps in their agricultural system. There are opportunities for productivity and income increases by introduction commercial varieties / crops, drip irrigation, adopting inter-cropping and by better sequencing of crops under rain-fed conditions. The farm transition to more commercial crops will be gradual and is estimated conservative.

   (e) Labour is a scarce resource, therefore the interventions aim at achieving economy of scale and mechanise where possible. For the analysis, labour requirements are assumed available for any extended and expanded agricultural operation. For the intensive agricultural activities, like land preparation, weeding and harvest, HHs usually hire labour. In some of the crop models these unskilled labour activities are costed as skilled labour to reflect the labour scarcity in peak harvest time. Agricultural mechanisation is common and widely used for land preparation (ploughing, rigging) and rice harvesting.

   (f) For most farmers the key production period is in and right after the wet season when there is abundance of rain water. Large portions of land remain unused in the dry season. With introduction of drip irrigation and water catchment (ponds) production could

increase by more than 50% - 100%, because of more crop cycles, better harvests (fruit tree), and higher yields.

(g) The demand for the so-called 'green-leafy' vegetables is sufficient and are preferred by farmers to grow. Within the range of green-leafy vegetables, Chinese Kale is seen as priority crop in commercial horticulture and is selected as a representative indicative vegetable crop, over lettuce, cabbage etc. having. Chinese Kale is generally, well grown in temperate zones, and in Cambodia there exist many good varieties adapted to local climate conditions. The most common, called DARA, can be grown year-round and is very popular with farmers because of high yields and the short maturation period of 25-30 days after transplanting.

(h) Increased supply from the local producers could be readily absorbed in the main markets around Phnom Penh without adverse effects on the market price, and the reduced losses from local production closer to market create a competitive advantage in terms of COGS (cost of goods sold) for local producers versus imports.

(i) With training, technology support and input& marketing services, the rural households are capable of undertaking improved farming practices and thereby enhancing productions at farm level. Furthermore, the Value Chain Development component will stimulate investments in the selected VCs, resulting in more market oriented production at farm level and more efficient operation of the VC as whole.

(j) Farmers currently retain seeds and planting materials from their own harvest or buy local seed. With improved practices including quality assured seed and extension support, crop productivity can be enhanced. The Good Agricultural Practices (GAP) and drip-irrigation models assume purchases and the use of improved seed (certified and quality declared seed). Furthermore, it is assumed that for vegetables, seed beds are used and transplanting will be practiced.

(k) Soil fertility is poor in the cassava producing areas and the Tonle Sap Zone. In the northern belt soils are actually still quite rich - as they are different soil types and also more recently cleared from forest or managed under a shifting cultivation system (in the north east). In the Mekong plains, the soil fertility is generally better than the Tonle Sap plain - this is largely due to the annual flooding from the Mekong. Soil condition also varies depending on what crops are currently being grown. Farmers growing vegetables or rice on a more market orientation generally manage their soils better. Application and availability of manure remains limited because of the small livestock herds. The application and availability of compost is also limited because it competes with animal feed. With GAP it is assumed that farmer HHs will produce and use 1t/ha of compost, including soil cover from harvest residues, mainly in Cassava.

(l) In the current situation, all marketable surplus is sold fresh to local traders, buyers or middlemen. Households are not organised in marketing structures or institutions, but able to understand the benefits of joint marketing and are willing to organise themselves in groups for receiving any technology packages and output marketing.

(m) Market demand is assumed healthy for all analysed crops, especially in the dry-season window during which AIMS beneficiaries would aim to sell their high value crops under drip irrigation. The Value Chains Development component aims to expand and strengthen market linkages.

(n) The enterprise model for commercial chicken rearing will be introduced in all three AEZ farm models. The Local (or village) chicken is popular in Cambodia and is preferred over industrial broilers, assuring a healthy demand and growth perspectives. Furthermore, the new semi-intensive smallholder production systems introduced recently under other IFAD

projects in Cambodia which dramatically reduce mortality rates can be widely replicated in AIMS.

(o) With multiple Micro Finance Institutions present and active in Cambodia, the target HHs have access to institutional credit mostly in the form of seasonal credit. It is assumed that the target HHs can access such services for essential seasonal credit or drip –irrigation investments. However the lending rates in Cambodia are high with rates between 24%–30% per annum. The Financial Services Partnerships component aims to improve the access to credit.

(p) Motorised transport is the most common mode of transport within and between villages and to nearby markets. On average, cost of transportation from farm gate to the nearest market or main road is estimated at US$ 5.5 per ton per km. The distance between farms and the nearest main road is estimated at 2-5 Km.

(q) Within Cambodia commodity price differences exist, mostly because of harvest seasonality. And to a lesser extend because of spatially separated markets. For the analysis, country averages are used based on April 2016 input and output price estimates.

(r) Taxes. The financial indicator chosen for the analysis is the net income before tax. Therefore taxes are not taken into account.

Models

3. **Overview**. Eight financial models have been developed, comprising of three farm HH models, 6 crop models and 2 enterprise models. The three Farm HH models are aggregated from crop models based on a rain-fed and drip-irrigated GAP farming combined. Crop models are developed for Cassava, Cashew, Pepper, Rice, Longan Fruit and Vegetables. Enterprise models are developed for Chicken farming and Beef fattening. The economic rationale for AIMS is based on: (i) improved agricultural productivity and reduction of post-harvest losses as a result of the implementation of GAP (e.g. intercropping, post-harvest handling & storage, minimum soil disturbance, crop rotation, composting,); (ii) increased cropping intensity and switching to high value crops and varieties with drip irrigation for dry-season periods. With a potential of yields increasing by 50% - 100% when using drip-irrigation, GAP and integrated soil fertility measures, improving HH income.

4. The list of HH models used in the analysis is provided in Table 1 and a description of the financial and economic models is reported in what follows. The detailed budgets are reported in the Annex 1 of the present Appendix.

Table 20: List of HH Farm Financial Models

Farm model	Farming System	
	Crops:	Enterprises:
Farm HH model 1	Cassava intercropped with long beans Rice, Cashew, Vegetables, Introduction Pepper	Chicken farming
Farm HH model 2	Cassava intercropped with long beans Rice, Fruit tree, Vegetables	Chicken farming
Farm HH model 3	Cassava intercropped with long beans Rice, Fruit tree, Vegetables, Introduction Pepper	Chicken farming

5. **Cropping pattern.** No doubt, rice is the number one stable food in Cambodia and is grown everywhere. However apart from rice and some extend cassava, due to climatic, land size and social preferences the crops grown vary between the agro ecological zones, resulting in different base line crop production. AIMS has selected a number of first entry provinces for

project intervening belonging to 3 out of 4 AEZs. In table 2 below the detailed cropping pattern for the three Agro-Ecological Zones (farm 1-3) is provided.

Table 22: Cropping pattern for the farm models

CROPPING PATTERNS	WOP		WP	
Name of AEZ	**%**	**ha**	**%**	**ha**
Plateau and mountainous zone				
FARM 1		2.50		2.50
Cassava	25%	0.625	20%	0.50
Cashew	35%	0.875	35%	0.88
Pepper	0%	0.000	3%	0.08
Rice	25%	0.625	22%	0.55
Fruit tree	0%	0.000	0%	0.00
Vegetables	15%	0.375	20%	0.50
Total	100%	2.50	100%	2.50
Tonle sap zone				
FARM 2		2.00		2.00
Cassava	30%	0.60	25%	0.50
Cashew	0%	0.00	0%	0.00
Pepper	0%	0.00	0%	0.00
Rice	25%	0.50	30%	0.60
Fruit tree	35%	0.70	35%	0.70
Vegetables	5%	0.10	10%	0.20
Total	95%	1.90	100%	2.00
Plain Mekong zone				
FARM 3		0.90		0.90
Cassava	5%	0.05	2%	0.02
Cashew	0%	0.00	0%	0.00
Pepper	0%	0.00	3%	0.03
Rice	50%	0.45	45%	0.41
Fruit tree	30%	0.27	30%	0.27
Vegetables	15%	0.14	20%	0.18
Total	100%	0.90	100%	0.90

6. **Methodology**. The analysis of the household models is developed by building financial crop budgets and deriving selected financial performance indicators that will be used to examine the impact of Project interventions on targeted HH in a Farm model, based on their farming system. The crop models are based on 1hectare size and the Farm models are based on the average common land size in their respective AEZ. Budgets are built taking into consideration several variables (including revenues, investment and operating costs) in both 'with' and 'without' Project scenarios. It is assumed that the 'without' scenario coincides with the current situation (i.e. baseline is assumed to be static).

7. **Auto-consumption** is included in the rice model, cassava is not produced for human consumption. With the number one staple food being rice, the annual rice consumption is 400-500kg (100kg per year per adult, 3 adults per HH and 50kg per year per child, 2 children per HH). Cash crops like vegetables are often sold before harvest and therefore not consumed by the HH. Auto-consumption would be valued at the retail price and thus is not included in the financial budget, because buying rice is equal to selling rice for the family HH budget.

8. **Labour.** Hired (skilled and unskilled) and family labour are both taken into account in the models and labour costs are included in the computation of operating costs. The cost of family labour is set equal to unskilled labour. The wage for family labour in the financial analysis (US$ 6/person-day) corresponds to the minimum wage rate for unskilled agriculture work. The costs for hiring external skilled labourers are estimated using the average wages for general

workers(US$ 7/person-day). Net income after family labour – the indicator considered to compute activity benefits – includes the cost of family labour. Family labour costs are therefore explicitly taken into account so to make sure that family incomes (net benefits and remuneration of family labour) are sufficient to cover the costs of all incremental labour required (hired unskilled and skilled) in setting up the new activities.

9. **Price data.** Financial output and input prices are derived from information compiled at national level by the Agricultural Marketing Office of the Ministry of Agriculture, Forestry & Fisheries. The prices of inputs as well as all technical parameters used to build the financial models were derived from information obtained during the final design mission (April 2016) with the help of Agro dealer Asea and inputs from key stakeholders, like Heifer International Cambodia, AVSF and AMRET.

10. **Discount rate.** This rate should provide the alternative financial returns/opportunity costs to the investor and is estimated at 10%. Because the cash flows are estimated in $US the discount rate is also estimated in $US.

11. **Farm models per Agro Ecological Zone**. These financial farm models describe the current situation and the traditional practices generally adopted by farmers (the without Project situation, WOP) compared with the With Project (WP) situation.

    (a) FARM 1:Plateau & Mountainous Agro Ecological Zone.

        (i) In the WOP situation, most of the HH land is allocated for traditional cassava production (not for human consumption) and cashew tree plantation. In recent years production has been affected by a phytoplasma disease known as cassava witched broom (CWB). This disease is now reported in over 80 percent of cassava fields. CWB-infected plants have lower yields and substantially lower starch content (CIAT, 2015) The Ministry of Agriculture Forestry & Fisheries (MAFF) has acknowledged these problems and is testing new varieties more resistant to CWB and other viruses. Cashew is not grown as a priority crop by the smallholder HHs, but as an incidental crop to Cassava and Rice or some other annual crop. Therefore, they don't care about peak production just squeeze in the max number of trees into their land holding, reducing the tree productivity. The WOP situation is cropped according to traditional techniques (i.e. mono cropping, land clearing, ridging and no use of fertilizer, mulching or cover crops). Yields are much below the potential and the returns to family labour are low. Post-harvest practices result in low production and high losses after harvest. In this zone, traditionally there is animal husbandry, but very little beef fattening.

        (ii) In the WP situation, the Project will promote the adoption of good agricultural practices in rain-fed fields through the development of extension and demonstration activities. The project will promote the use and expansion of drip-irrigation for vegetables production outside the rain season. Farmers reached by Project activities will be able to switch from traditional to improved cropping and intercropping, applying post–harvest technologies and improved seeds(virus resistant cuttings, QAIP Rice) and inputs. For Cashew, Orchid management practices will be introduced, with timely pruning and reducing the number of trees per ha. Beef fattening, Chicken farming and pepper production will be introduced, improved and scaled as alternative and extra income source. Which, combined would increase production, productivity, net incomes, and overall food availability. It was assumed that with the production increase the land allocated for the main traditional crops, cassava and rice, will reduce by 10%. Allocating more land for high value crops. Although, with intercropping the land use ratio increases above 100%, this was not taken into account in the WP situation.

    (b) FARM 2:Tonle Sap Agro Ecological Zone.

(i) The WOP situation is largely the same as described under FARM 1 above for the traditional crops Rice and Cassava. The average farm size is slightly smaller and in Tonle Sap there is more fruit tree production (mainly Longan) than in other AEZs. Without irrigation fruit tree harvest is normally only once a year. Also in this zone there is a practice of animal husbandry, but no beef fattening.

(ii) In the WP situation, farmers will be able to have access to drip irrigation / farm water to multiply their harvest and to diversify their crops to higher value crops such as, green leafy vegetables. Moreover, with reliable access to farm water, farmers will be able to get two or sometimes even three crops in a year. This model simulates the introduction of drip-irrigated high value vegetables into existing crop farming systems. Irrigated vegetable production is intensive and requires a significant amount of labour and inputs. However, high yield levels and higher market prices make these production activities profitable. Expansion in the number of fruit trees is not foreseen in the model, the focus is on intensification of the existing orchid. The model also considers post-harvest techniques and activities (drying, packing) to reduce the post-harvest losses. The rain-fed and drip-irrigated crops will benefit from the adoption of GAP, as in the situation of FARM 1. Chicken farming will be introduced, improved and scaled as alternative and extra income source. The IRR and NPV are both positive for FARM 2.

(c) FARM 3:Mekong Plain Agro Ecological Zone.

(i) The average farm size in the Mekong Plain is considerable smaller than in the other zones and is estimated at 1ha, which is below the national average of 1.3ha. The WOP situation is predominantly rice cultivation. In farm 3 there is already more vegetable production than in the other zones, because of the close proximity to the urban centers. Also in the Mekong plain fruit tree plantations are common and widely spread, but of smaller size.

(ii) In the WP situation, farmers will be able to have access to improved and scaled drip irrigation, allowing the HHs to increase the land dedicated for vegetables and to increase the production in their existing orchids. In this zone the Quality Assured Improved Production (QAIP) rice varieties,-the so-called fragrant rice varieties- will be promoted, generating a premium for the farmers. As under farm 2, expansion in the number of fruit trees is not foreseen in the model, the focus is on intensification of the existing orchid The rain-fed and drip-irrigated crops will benefit from the adoption of GAP, as in the situation of FARM 1 & 2. Chicken farming and pepper production will be introduced, improved and scaled as alternative and extra income source. AEZ. The IRR and NPV are both positive for FARM 3.

12. **Crop models.** The underlying crop models, all show positive NPV and IRR, except for the Beef fattening and is therefore not included in the farm model aggregation. Beef fattening becomes only interesting for farmers when they fatten 4 or more animals, under four it is not interesting. The farmer willingness' and land availability to host more than 4 animals is regarded low in view of the return. The higher production for the rain fed and drip –irrigated crops is based on: (i) focus on higher value crops and reduction of post-harvest losses; (ii) improvement of agriculture practices by adopting GAP including intercropping; (iii) outside wet season production of high value crops with drip irrigation, higher and more reliable harvest with drip-irrigation for fruit tree crops and; (iv) by increasing inputs in terms of better seed and better usage of fertilizer (including compost) and chemicals. Because fertilizer and chemicals are very costly for a HH budget, the increase of these inputs are kept to a minimum, also to reflect the possibility and willingness of a HH to invest in these inputs. The IRR for drip-irrigated crops vegetables, pepper and Longan fruit) are high. These high IRR (especially for Longan and Vegetables) can be explained, simply because in the WP(drip-irrigation) situation, it is possible to harvest up to three times more than in the non-irrigated situation, resulting in high IRRs. The

reliable water supply has also a substantial positive effect on production volume and quality(size) of the produce.

13. **Results.** The expected financial benefits for targeted HH are illustrated in table 4: Farming Production Budgets Summary, presented below. Indicators selected include net income at full development after labour, IRR and NPV. It is understood that such net incomes may not be achieved in one year; thus a gradual and conservative achievement of the expected benefits has been used in the analysis. Results suggest significant potential for creating positive net incomes for targeted households in selected productive activities especially in the combination of rain-fed and drip irrigated farming in combination with chicken farming and introduction of the high value crop pepper. The net income percentage increment is the highest in Farm 1, since the starting WP situation is the most basic and with innovations like intercropping with cassava, more vegetables and introduction of pepper, a fairly large increment can be made.

14. **Cash flow.** The cash flow analysis shows for only for Farm model 1, in the initial year (Y1) of the Project a negative cash flow. This negative cash flow is mainly attributed to the increase of inputs and the gradual (realistic) increase in production volumes. The Project has no credit facility component but instead assumes the use of available credit options through existing MFIs.

Table 23: Farming Production Budgets Summary

Crop / Farm budgets	**Post-harvest yields**			**Net income (US$) after labour**			**NPV** (US$)	**IRR**
	WOP	*WP*[1]	*Increm.*	*WOP*	*WP*[1]	*Increm.*		
Farm 1	-	-	-	1727	7091	311%	13666	46%
Farm 2	-	-	-	11648	17556	51%	16881	49%
Farm 3				4923	8588	74%	10535	49%
Cassava /Cassava intercropped	14	20	40%	19	156	728%	10	10%
Cashew	554	1264	128%	270	1014	275%	144	12%
Pepper	0	3800	n/a	0	44664	n/a	142743	73%
Rice	4	5	15%	34	94	178%	40	15%
Fruit tree (Longan)	15500	23250	50%	15897	23205	46%	20870	50%
Vegetable (Green Leafy)	5000	7500	50%	3514	5153	47%	213	11%
Chicken	80	295	271%	140	148	5%	32	12%
Beef fattening	0	4	n/a	0	245	n/a	-581	N/A

[1]WP at full development

Project Benefits and Beneficiaries

15. **Project Benefits.** AIMS will generate financial and social benefits by promoting investments and activities aimed at introducing good agricultural practices, high value crops and enterprises like beef fattening and chicken farming.

16. Financial benefits will be in the form of increased financial returns (net incomes) of the households targeted by the Project.

17. Social benefits will include a reduction in poverty rates in the areas targeted by the Project. This will be the effect of the increased financial returns for HHs consequent to Project intervention.Other social benefits include improved HH nutrition through diversification of crop production or increased incomes which could be used to improve diets. Drip-irrigation brings the possibility for farmers to diversify in vegetable crops in the dry season, having a positive effect on the HH diet composition. A HH expands their cultivated products with at least 4 new crops, resulting in a 20% increase in diet diversification.

18. **Direct Project Beneficiaries.** The Project would target approximately 75.000 smallholder farm HH in the Project areas. Assuming an average household size of 4.4 people (Cambodia Inter-Censal Population Survey,2013) total beneficiaries would be about 330,000 people. The total number of AIMS direct beneficiaries expected over the years is reported in table 4.

Table 24: Direct Project Beneficiaries

		Adoption rate per Project Year						
Items	target HH	Y 1	Y 2	Y 3	Y 4	Y 5	Y6	Total
FARM 1 Plateau & Mountains Zone	**15000**							
adoption rate	**70%**	**5%**	**20%**	**30%**	**30%**	**10%**	**5%**	
no. of HH	**10500**	*525*	*2,100*	*3,150*	*3,150*	*1,050*	*525*	10500
cummulative no. of HH		**525**	**2,625**	**5,775**	**8,925**	**9,975**	**10,500**	
FARM 2 Tonle Sap Zone	**25000**							
adoption rate	**70%**							
no. of HH	**17500**	*875*	*3,500*	*5,250*	*5,250*	*1,750*	*875*	*17500*
cummulative no. of HH		**875**	**4,375**	**9,625**	**14,875**	**16,625**	**17,500**	
FARM 3 Plain Zone	**35000**							
adoption rate	**70%**							
no. of HH	**24500**	*1,225*	*4,900*	*7,350*	*7,350*	*2,450*	*1,225*	24500
cummulative no. of HH		**1,225**	**6,125**	**13,475**	**20,825**	**23,275**	**24,500**	
Total Target. of HH	75000	**2,625**	**10,500**	**15,750**	**15,750**	**5,250**	**2,625**	
Total cummulative no. of HH	**52500**	**2,625**	**13,125**	**28,875**	**44,625**	**49,875**	**52,500**	

19. **Indirect Project Beneficiaries.** Consumers would benefit from more, better quality vegetable products, better quality rice, healthier chickens and beef, with positive effects in terms of improved nutrition and overall food safety.

20. Agriculture service providers would benefit from increased service and input demand (e.g. fertilizers, seeds, marketing services). In addition to this, all those living in the rural areas where supported households will be located will benefit from strengthened local economies resulting from inflows of income, strengthened local demand and Value chain development investments.

Economic Analysis

Objectives

21. The objectives of this economic analysis are: (i) to examine the viability of the Project as a whole, in which aggregated economic benefits are compared with total outflow; (ii) to assess the Project's impact and the overall economic internal rate of return (EIRR); and (iii) to perform sensitivity analysis in order to measure the robustness of the economic analysis and to measure variations in the overall EIRR due to unforeseen factors.

Assumptions

22. The following assumptions underlie the economic analysis of the Project:

(a) The analysis is based on a 20 year period during which AIMS will generate benefits, including the 6-year Project implementation period.

(b) The costs and revenues estimated in the financial analysis provide the basis for an evaluation to determine the likely economic benefits and costs to the national economy as a whole.

(c) The main benefits of the Project would accrue to the Cambodia economy in terms of the improved farming systems that will sustainably increase food crop yields, diversify production to more commercial high value crops, improve soil fertility and structure, and increase overall food availability and nutrition. Furthermore, investments in selected VCs will improve the marketing of agriculture output and the involvement of the HHs in the chain.

(d) The analysis assumes an adoption rate of 70%.

(e) The phasing of the beneficiaries into the Project follows a conservative estimation, reaching 85% of the target HHs by end YR4

(f) Economic prices have been computed using a Standard Conversion factor (SCF) equal to 0.8929[34]. Details are shown in the Annex 1 to the present Appendix.

[34] estimated using: SCF=(M + X)/[(M + Tm)+(X - Tx)], M=total imports, X=total exports, Tm=import tax, Tx=export tax.

(g) **Economic Project Costs.** Financial costs have been converted to economic costs, excluding taxes and duties as well as price contingencies, using the Costab software. There are no further investment costs after PY6, however, from Year 10 to 20, recurrent costs in PY7 (with the exception of Project management recurrent costs); were included, as it is assumed that these costs will have to be incurred if the future benefits of AIMS are to be sustained. In order to avoid double counting of costs in the final aggregation, Project investment costs are not included in the models.

Project Economic Internal Rate of Return and Net Present Value

23. The economic analysis of the Project indicates that AIMS is robust in economic terms. The overall Economic Internal Rate of Return (EIRR) of the Project is estimated at 31.9% (base case) which is above the opportunity cost of capital in Cambodia. The EIRR is estimated, based on the assumption that70% of target farmers will adopt the GAP technology promoted by the Project and would want to use or expand on drip-irrigation cultivation.

24. The Net Present Value (NPV) is USD 685 million over the 20-year period of analysis, with the benefit stream based on the quantifiable benefits that relate directly to the activities undertaken following implementation of the components. The summary of the economic analysis is presented in Annex 2.

25. **Sensitivity Analysis**. The EIRR was subject to sensitivity analysis in order to measure variations due to unforeseen factors and account for risk. Criteria adopted in the sensitivity analysis are: 10, 20 and 50% cost over-run, 10 and 20% increase in benefits, 10 to 50% benefits decrease and 1 to 2 year implementation delay. The Project is robust because even with large variations in cost +20% or benefits -20% the EIRR remains above the opportunity cost of capital of 10%. Results are presented in Table 6.

Table 25: Sensitivity analysis

Year	ERR	NPV /a
Net cash flow		
base scenario	**31.9%**	**685,248**
Costs+10%	**31.5%**	**680,100**
Costs+20%	**31.1%**	**674,952**
Costs+50%	**29.9%**	**659,508**
Benefits +10%	**32.4%**	**758,921**
Benefits +20%	**32.7%**	**832,594**
Benefits -10%	**31.5%**	**611,576**
Benefits -20%	**30.9%**	**537,903**
Benefits -50%	**28.1%**	**316,884**
I year lag in benefit	**30.5%**	**585,841**
2 years lag in benefit	**28.9%**	**495,253**
a/ Net Present Value (NPV), @10%.		

26. The Project is slightly more sensitive to benefits decrease and delays than to costs increases (macroeconomic and institutional risk). Improved market linkages and private sector involvement have a better impact on the Project's economic outcomes, than the tight control of cost overruns.

ANNEXES to Appendix 10

ANNEX 1: FINANCIAL ANALYSIS

Table 1: Financial & Economic Prices

Table 1: Financial & Economic Prices		1 USD:DKH	4000	
	Description	Unit	Financial Prices $USD	Economic Prices $USD
Outputs	**Crops**			
	Cassava wet	t	70	62.5
	Cassava dry	t	150	133.9
	Rice (wet season) dried	Kg	0.28	0.3
	Rice (dry season) dried	Kg	0.225	0.2
	Rice AQIP	Kg	0.315	0.3
	wet paddy	Kg	0.175	0.2
	Chicken	Kg	3.5	3.1
	Longan 0.28	Kg	1.25	1.1
	Mango	Kg	0.37	0.3
	Vegetables (av. leafy veg.)	Kg	0.79	0.7
	Long bean	kg	0.62	0.55
	Pepper White	Kg	15	13.4
	Cashew Raw	Kg	1.1	1.0
	Cabbage	Kg	0.49	0.4
	Chinese Kale	Kg	1	0.9
	Masta Green	Kg	0.99	0.9
	Lettuce	Kg	0.58	0.5
	Cattle (chest 160cm)	cow	750	670
Inputs	**Seed**			
	Cassava cutting	bundle	2.50	2.2
	Rice seed	kg	0.66	0.6
	Rice seed (AQIP)	kg	0.95	0.8
	Long bean (80 seed)	pack	0.80	0.71
	Chinese Kale (10gr)	pack	0.77	0.69
	Pepper tree	tree	5.00	4.5
	Longan tree	tree	1.00	0.9
	Cashew tree/seedling	tree	0.75	0.7
	Fertilzer / chemicals			
	Farmyard manure/compost	cart	17	15.2
	Fertilizer UREA	bag	32	28.6
	Fertilizer DAP	bag	26	23.2
	Fertilizer NPK (20:20:15)	bag	29	25.7
	Mulch & compost for treecrop	tree	0.5	0.45
	Insecticide	l	40	35.7
	Herbicide	l	20	17.9
	Other			
	Chicken pen (approx 100 chicken)	pen	35	31.3
	Chicks	chick	0.25	0.2
	Chicks (vaccinated)	chick	1.25	1
	Commercial feed	kg	0.6	0.5
	Local feed	kg	0.15	0.1
	Cattle (chest 120cm)	cow	550	491
	Beef feed & treatment	cow	70	63
	Fuel gasoline	l	0.9	0.6
	Fuel diesel	l	0.8	0.5
	Poles	pole	4.5	4.0
	Iron wire	kg	1.1	1.0
	Pole protection (banana leaf)	leaf	0.15	0.1
	Pump machine	unit	250	223
	Irrigation system (265$/0.1ha)	unit	265	237
	Agri-tools	set	126	113
	Sprinklers	unit	1.9	2
	Additional soil	basket	1.75	2
Services				
	Transportation	t	5.5	5
	Motor bike rent	day	50	45
	Land preparation (tractor)	day	61	55
	Land preparation (animal)	ha	77	68
	Land preparation ridging (tractor)	day	15	13
	Land clearing	ha	10	9
	Harvesting bulk (cassava)	t	37	33
	Harvesting tree crop	kg	0.88	0.78
	Combine harvester	ha	96	85
	Bags	bag	0.15	0
Labour				
	Family labour	person-day	6	5
	Hired labour Skilled (spraying, fertilizer)	person-day	7	6
	Hired labour Unskilled (land preparatio	person-day	6	5

Sources: Ministry of Agriculture, Forestry & Fisheries; Agricultural Marketing Office and Agro-

Financial Farm Models:

Farm 1:

Plateau and mountainous zone												
Parameters	WOP	WOP	WP		enterprises:		Chicken					
Cassava	ha	0.63	0.50				Beef					
Cashew	ha	0.88	0.88									
Pepper	ha	0.00	0.08									
Rice	ha	0.63	0.55									
Fruit tree	ha	0.00	0.00									
Vegetables	ha	0.38	0.50									
Total	ha	2.50	2.50									
Financial Budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production	**US$**	**3211**	**3714**	**5601**	**7219**	**8508**	**9617**	**10006**	**10925**	**11056**	**11187**	**11318**
Cassava	US$	*420*	*423*	*517*	*571*	*618*	*666*	*666*	*666*	*666*	*666*	*666*
Cashew	US$	*576*	*576*	*691*	*465*	*353*	*393*	*655*	*918*	*1049*	*1180*	*1311*
Pepper	US$	*0*	*0*	*962*	*1967*	*2982*	*3655*	*3771*	*4190*	*4190*	*4190*	*4190*
Rice	US$	*437*	*390*	*433*	*504*	*521*	*545*	*556*	*556*	*556*	*556*	*556*
Fruit tree	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Vegetables	US$	*1500*	*2000*	*2338*	*2700*	*3023*	*3325*	*3325*	*3563*	*3563*	*3563*	*3563*
Chicken	US$	*278*	*326*	*662*	*1012*	*1012*	*1033*	*1033*	*1033*	*1033*	*1033*	*1033*
Total production costs	US$	**1484**	**6113**	**4293**	**4642**	**3634**	**3790**	**3712**	**3762**	**3775**	**3788**	**4227**
Cassava	US$	*408*	*570*	*576*	*581*	*586*	*588*	*588*	*588*	*588*	*588*	*588*
Cashew	US$	*339*	*1026*	*404*	*332*	*269*	*278*	*304*	*329*	*342*	*355*	*423*
Pepper	US$	*0*	*1274*	*1337*	*1467*	*514*	*550*	*550*	*574*	*574*	*574*	*840*
Rice	US$	*416*	*427*	*432*	*496*	*498*	*504*	*505*	*505*	*505*	*505*	*505*
Fruit tree	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Vegetables	US$	*182*	*2401*	*878*	*986*	*986*	*986*	*986*	*986*	*986*	*986*	*986*
Chicken	US$	*138*	*415*	*665*	*780*	*780*	*885*	*780*	*780*	*780*	*780*	*885*
Net Income		**1727**	**-2399**	**1309**	**2577**	**4874**	**5826**	**6294**	**7163**	**7281**	**7399**	**7091**
Incremental			-4126	-419	849	3147	4099	4566	5435	5553	5672	5364
NPV @ 10%	13666											
IRR @ 10%	46%											

Farm2:

FARM 2: Tonle Sap Zone												
Parameters	SCF	WOP	WP		enterprises:		Chicken					
Cassava	ha	0.60	0.50				Beef					
Cashew	ha	0.00	0.00									
Pepper	ha	0.00	0.00									
Rice	ha	0.50	0.60									
Fruit tree	ha	0.70	0.70									
Vegetables	ha	0.10	0.20									
Total	ha	1.90	2.00									
Financial Budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production	**US$**	**14316**	**14536**	**17081**	**16884**	**19194**	**21383**	**23573**	**23668**	**23668**	**23668**	**23668**
Cassava	US$	*403*	*423*	*517*	*571*	*618*	*666*	*666*	*666*	*666*	*666*	*666*
Cashew	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pepper	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Rice	US$	*350*	*425*	*472*	*550*	*568*	*594*	*607*	*607*	*607*	*607*	*607*
Fruit tree	US$	*12884*	*12562*	*14495*	*13671*	*15787*	*17760*	*19937*	*19937*	*19937*	*19937*	*19937*
Vegetables	US$	*400*	*800*	*935*	*1080*	*1209*	*1330*	*1330*	*1425*	*1425*	*1425*	*1425*
Chicken	US$	*278*	*326*	*662*	*1012*	*1012*	*1033*	*1033*	*1033*	*1033*	*1033*	*1033*
Total production costs	US$	**2668**	**7793**	**4486**	**4670**	**5392**	**5073**	**4979**	**5597**	**4979**	**4979**	**6111**
Cassava	US$	*392*	*570*	*576*	*581*	*586*	*588*	*588*	*588*	*588*	*588*	*588*
Cashew	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pepper	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Rice	US$	*333*	*466*	*471*	*541*	*543*	*549*	*551*	*551*	*551*	*551*	*551*
Fruit tree	US$	*1757*	*5381*	*2422*	*2373*	*3089*	*2656*	*2666*	*3284*	*2666*	*2666*	*3693*
Vegetables	US$	*49*	*960*	*351*	*394*	*394*	*394*	*394*	*394*	*394*	*394*	*394*
Chicken	US$	*138*	*415*	*665*	*780*	*780*	*885*	*780*	*780*	*780*	*780*	*885*
Net Income		**11648**	**6743**	**12595**	**12214**	**13802**	**16310**	**18594**	**18070**	**18689**	**18689**	**17556**
Incremental			-4904	947	566	2154	4662	6946	6422	7041	7041	5909
NPV @10%	16881											
IRR @10%	49%											

Farm3:

Plain Mekong zone												
Parameters	SCF	WOP	WP		enterprises:		Chicken					
Cassava	ha	0.05	0.02									
Cashew	ha	0.00	0.00									
Pepper	ha	0.00	0.03									
Rice	ha	0.45	0.41									
Fruit tree	ha	0.27	0.27									
Vegetables	ha	0.14	0.18									
Total	ha	0.90	0.90									
Financial Budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production	**US$**	**6133**	**6193**	**7778**	**8357**	**9668**	**10821**	**11711**	**11947**	**11947**	**11947**	**11947**
Cassava	US$	*30*	*15*	*19*	*21*	*22*	*24*	*24*	*24*	*24*	*24*	*24*
Cashew	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pepper	US$	*0*	*0*	*346*	*708*	*1073*	*1316*	*1357*	*1508*	*1508*	*1508*	*1508*
Rice	US$	*315*	*287*	*319*	*371*	*384*	*401*	*410*	*410*	*410*	*410*	*410*
Fruit tree	US$	*4970*	*4845*	*5591*	*5273*	*6089*	*6850*	*7690*	*7690*	*7690*	*7690*	*7690*
Vegetables	US$	*540*	*720*	*842*	*972*	*1088*	*1197*	*1197*	*1283*	*1283*	*1283*	*1283*
Chicken	US$	*278*	*326*	*662*	*1012*	*1012*	*1033*	*1033*	*1033*	*1033*	*1033*	*1033*
Beef fattening	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total production costs	US$	**1210**	**4149**	**2736**	**2964**	**2899**	**2855**	**2754**	**3001**	**2763**	**2763**	**3360**
Cassava	US$	*29*	*21*	*21*	*21*	*21*	*21*	*21*	*21*	*21*	*21*	*21*
Cashew	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pepper	US$	*0*	*458*	*481*	*528*	*185*	*198*	*198*	*207*	*207*	*207*	*302*
Rice	US$	*300*	*315*	*318*	*365*	*366*	*371*	*372*	*372*	*372*	*372*	*372*
Fruit tree	US$	*678*	*2076*	*934*	*915*	*1191*	*1025*	*1028*	*1267*	*1028*	*1028*	*1424*
Vegetables	US$	*66*	*864*	*316*	*355*	*355*	*355*	*355*	*355*	*355*	*355*	*355*
Chicken	US$	*138*	*415*	*665*	*780*	*780*	*885*	*780*	*780*	*780*	*780*	*885*
Beef fattening	US$	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net Income		**4923**	**2045**	**5042**	**5392**	**6769**	**7967**	**8957**	**8946**	**9185**	**9185**	**8588**
Incremental			-2878	119	469	1846	3044	4034	4023	4262	4262	3665
NPV @10%		10535										
IRR @10%		49%										

Financial Crop & Enterprise models:

Cassava:

Cambodia AIMS final design	Intervention: improved varieties(Mosaic free, high yielding), GAP, intensification with better spacing, intercropping											
cropbudget: Cassava dry & intercropping beans	**FINANCIAL**											
Parameters	unit	WOP	WP			conversion rate: wet to dry cassava:				0.4		
Plot size	ha	1	1									
Seed beans	pack	0	5									
Cassava cutting	bundle	50	70									
Land preparation (tractor)	day	1	2									
Land preparation ridging (tractor)	day	1	2									
Herbicides	lt	0	2									
Fertilizer composite NPK	bag	0	2									
Land clearing	pers-day	2	2									
Cuttings	pers-day	4	4									
Weeding	pers-day	10	15									
Spraying	pers-day	0	2									
Manure and fertilizer application	pers-day	0	3									
Harvesting /stocking	pers-day	18	22									
Prepare for next season	pers-day	3	5									
Chipping	pers-day	30	45									
Drying	pers-day	7	14									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW												
production level %			100%	115%	120%	130%	140%	140%	140%	140%	140%	140%
Harvest Cassava root	tonnes	14	14	16	17	18	20	20	20	20	20	20
Harvest beans	kg	0	350	403	420	455	490	490	490	490	490	490
Post-harvest loss %	%	20%	20%	15%	10%	10%	10%	10%	10%	10%	10%	10%
Post-harvest dry Cassava	tonnes	4	4	5	6	7	7	7	7	7	7	7
Post-harvest Long Beans	kg	0	280	342	378	410	441	441	441	441	441	441
OUTFLOW												
Inputs												
Seed	pack	0	5	5	5	5	5	5	5	5	5	5
Cassava cutting	bundle	40	70	70	70	70	70	70	70	70	70	70
Land preparation (tractor)	ha	1	2	2	2	2	2	2	2	2	2	2
Land preparation ridging (tractor)	day	1	2	2	2	2	2	2	2	2	2	2
Herbicides	lt	0	2	2	2	2	2	2	2	2	2	2
Fertilizer composite NPK	bag	0	2	2	2	2	2	2	2	2	2	2
Bags (12 bags/t)	bag	54	54	66	73	79	85	85	85	85	85	85
Transport/loading	tonnes	4	4	5	6	7	7	7	7	7	7	7
Labour												
Land clearing	pers-day	2	2	2	2	2	2	2	2	2	2	2
Cuttings	pers-day	4	4	4	4	4	4	4	4	4	4	4
Weeding	pers-day	10	15	15	15	15	15	15	15	15	15	15
Spraying	pers-day	0	2	2	2	2	2	2	2	2	2	2
Manure and fertilizer application	pers-day	0	3	3	3	3	3	3	3	3	3	3
Harvesting /stocking	pers-day	18	22	23	24	25	25	25	25	25	25	25
Prepare for next season	pers-day	3	5	5	5	5	5	5	5	5	5	5
Chipping	pers-day	30	45	45	45	45	45	45	45	45	45	45
Drying	pers-day	7	14	14	14	14	14	14	14	14	14	14
Total Labour skilled	pers-day	0	5	5	5	5	5	5	5	5	5	5
Total Labour unskilled	pers-day	74	107	108	109	110	110	110	110	110	110	110
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Cassava	$US	672	672	821	907	983	1058	1058	1058	1058	1058	1058
Long bean	$US	0	174	212	234	254	273	273	273	273	273	273
Total	$US	672	846	1033	1142	1237	1332	1332	1332	1332	1332	1332
Investments												
Inputs												
Seed	$US	0	4	4	4	4	4	4	4	4	4	4
Cassava cutting	$US	100	175	175	175	175	175	175	175	175	175	175
Land preparation (tractor)	$US	61	123	123	123	123	123	123	123	123	123	123
Land preparation ridging (tractor)	$US	15	30	30	30	30	30	30	30	30	30	30
Herbicides	$US	0	40	40	40	40	40	40	40	40	40	40
Fertilizer composite NPK	$US	0	58	58	58	58	58	58	58	58	58	58
Bags	$US	8	8	10	11	12	13	13	13	13	13	13
Transport/loading	$US	25	25	30	33	36	39	39	39	39	39	39
Labour												
Total skilled	$US	0	35	35	35	35	35	35	35	35	35	35
Total unskilled	$US	444	642	648	654	660	660	660	660	660	660	660
Total production costs		653	1139	1153	1163	1172	1176	1176	1176	1176	1176	1176
Net Income		19	-294	-119	-21	64	156	156	156	156	156	156
Incremental			-312	-138	-40	45	137	137	137	137	137	137
Return on family labour day		0	-3	-1	0	1	1	1	1	1	1	1
NPV @10%		10										

Cashew

Cambodia AIMS final design	Intervention: (i)with existing varieties, GAP, pruning, orchid management, optimal spacing. (ii)Introduction and replacement wi											
crop budget: CASHEW plantation	**FINANCIAL**											
Parameters	unit	WOP	WP									
Plot size	ha	1	1									
Cashew tree	tree	277	156									
Agri-tools /material	set	0	0.5									
Mulch & compost for treecrop	tree	0	156									
Production kg/tree after yr 5	kg	2	9		40% improvement by pruning mulching, optimal spacing							
Thinning existing plantation	pers-day	0	30									
Planting (clearing, digging hole, planting)	pers-day	200	110									
Harvesting	pers-day	10	33									
weeding & maintenance	pers-day	0	15									
Manure and fertilizer application	pers-day	0	15									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW			Improvement existing variety				Full production new variety					
production level %			100%	120%	80%	60%	30%	50%	70%	80%	90%	100%
Harvest	kg	554	554	665	443	332	421	702	983	1123	1264	1404
Post-harvest loss %	%	5%	5%	5%	4%	3%	3%	3%	3%	3%	3%	3%
Post-harvest	kg	526	526	632	425	322	409	681	953	1090	1226	1362
OUTFLOW												
Inputs												
Cashew tree	tree	277	78	78	-	-	-	-	-	-	-	
Agri-tools /material	set	0	0.5				0.5					0.5
Mulch & compost for treecrop	tree	0	156	156	156	156	156	156	156	156	156	156
Labour												
Thinning existing plantation	pers-day	-	10	10	10							
Planting (clearing, digging hole, planting)	pers-day	20	110									
Harvesting 57 kg/day 12kg/tree 4.75 tree/day	pers-day	10	10	12	8	6	7	12	17	20	22	25
weeding & maintenance	pers-day	0	15	15	15	15	15	15	15	15	15	15
Manure and fertilizer application	pers-day	0	15	15	15	15	15	15	15	15	15	15
Total Labour skilled	pers-day	0	15	15	15	15	15	15	15	15	15	15
Total Labour unskilled	pers-day	30	145	37	33	21	22	27	32	35	37	40
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Cashew nut raw (RCN)	$US	658	658	789	532	403	449	749	1049	1198	1348	1498
Investments												
Inputs												
Cashew tree	$US	208	59	59								
Agri-tools /material	$US		63									63
Mulch & compost for treecrop	$US		78	78	78	78	78	78	78	78	78	78
Labour												
Total skilled	$US	0	105	105	105	105	105	105	105	105	105	105
Total unskilled	$US	180	868	220	197	125	134	164	193	208	223	238
Total production costs		388	1173	461	380	308	317	347	376	391	406	484
Net Income		270	-515	328	152	95	132	402	672	807	942	1014
Incremental			-785	58	-118	-175	-138	132	402	537	672	744
Return on family labour day		9	-4	9	5	5	6	15	21	23	25	26
	NPV @10%	144										
	IRR @ 10%	12%										

Pepper

Cambodia AIMS final design	Intervention: introduce pepper production											
crop budget: Pepper plantation	**FINANCIAL**											
Parameters	unit	WOP	WP									
Plot size	ha	1	1									
Pepper tree	tree	0	4500	investment in a tree year period								
Manure	cart	0	32									
Poles (replace every 10 yr)	pole	0	1900									
Iron wire (pole=kg of wire)	kg	0	1900									
pole protection (coconut leaf)	leaf	0	11000									
Land clearing	day	0	5									
Land preparation (ploughing)	day	0	3									
Additional Soil	basket	0	300									
Water pumping @ cost of diesel	L	0	384									
Transport motorbike	day	0	3									
Insecticide	l	0	6									
Bags 50kg	bag	0	75									
Planting (digging hole, planting, pole) 5 holes/day	pers-day	0	440									
weeding	pers-day	0	20									
Spraying	pers-day	0	12									
Manure and fertilizer application	pers-day	0	80									
Digging waterpond (400m3)	pers-day	0	20									
Harvesting & packing	pers-day	0	450									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW Phasing												
production level phasing%			0%	25%	50%	75%	90%	90%	100%	100%	100%	100%
Harvest (2kg/pole/yr)	kg	0	0	950	1900	2850	3420	3420	3800	3800	3800	3800
Post-harvest loss %	%	10%	10%	10%	8%	7%	5%	2%	2%	2%	2%	2%
Post-harvest	kg	0	0	855	1748	2651	3249	3352	3724	3724	3724	3724
OUTFLOW												
Inputs												
Pepper tree	tree	0	1500	1500	1500	-	-	-	-	-	-	0
Manure	cart	0	11	22	32	32	32	32	32	32	32	32
Poles (replace every 10 yr)	pole	0	633	633	633	-	-	-	-	-	-	633
Iron wire (pole=kg of wire)	kg	0	633	633	633	-	-	-	-	-	-	633
pole protection (coconut leaf)	leaf	0	11000	11000	11000	11000	11000	11000	11000	11000	11000	11000
Land clearing	day	0	5	0	0	0	0	0	0	0	0	0
Land preparation (ploughing)	day	0	3	0	0	0	0	0	0	0	0	0
Additional Soil	basket	0	100	200	300	300	300	300	300	300	300	300
Water pumping @ cost of diesel	l	0	640	640	640	384	384	384	384	384	384	384
Transport motorbike	day	0	0	1	2	3	3	3	3	3	3	3
Insecticide	l	0	2	4	6	6	6	6	6	6	6	6
Bags 50kg	bag	0	0	17	35	53	65	67	74	74	74	74
Labour												
Planting (digging hole, planting, pole, wire) 5 holes	pers-day	0	200	200	200							
weeding	pers-day	0	10	20	30	30	30	30	30	30	30	30
Manure and fertilizer application	pers-day	0	80	80	80	80	80	80	80	80	80	80
Digging waterpond (200m3)	pers-day	0	20									
Spraying	pers-day		4	8	12	12	12	12	12	12	12	12
Harvesting	pers-day	0	-	113	225	338	405	405	450	450	450	450
Total Labour skilled	pers-day	0	4	121	237	350	417	417	462	462	462	462
Total Labour unskilled	pers-day	0	310	300	310	110	110	110	110	110	110	110
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Pepper	$US	0	0	12825	26220	39758	48735	50274	55860	55860	55860	55860
Investments												
drip irrigation phasing	unit		3	3	4							
Pump machine	$US		250									
Irrigation system (265$/0.1ha)	$US		795	795	1060							
Irrigation maintenance 10%	$US		105	184	290	290	290	290	290	290	290	290
Inputs												
Pepper tree	$US		7500	7500	7500							
Manure	$US		181	374	544	544	544	544	544	544	544	544
Poles (replace every 10 yr)	$US	-	2850	2850	2850	-	-	-	-	-	-	2850
Iron wire (pole=kg of wire)	$US	-	697	697	697							697
pole protection (coconut leaf)	$US	-	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
Land clearing	$US	-	50			-	-	-	-	-	-	
Land preparation (ploughing)	$US	-	184	-	-	-	-	-	-	-	-	-
Additional soil	$US		175	350	525	525	525	525	525	525	525	525
Water pumping @ cost of diesel	$US	-	576	576	576	346	346	346	346	346	346	346
Transport motorbike	$US		-	50	100	150	150	150	150	150	150	150
Insecticide	$US		80	160	240	240	240	240	240	240	240	240

Rice

Cambodia AIMS final design	Intervention: change to premium quality assured QAIP Rice variety, improved harvesting, better drying, storying											
crop budget: Rice wet season dry	**FINANCIAL**											
Parameters	unit	WOP	WP			Conversion factor wet to dry:			0.7			
Plot size	ha	1	1									
Rice seed	kg	84	84									
Land preparation (tractor)	ha	1	1									
Harvest (combine)	ha	1	1									
Herbicides	lt	1	2									
Fertilizer composite NPK	bag	2	4									
Land clearing	pers-day	2	2									
Sowing	pers-day	15	15									
Transplanting	pers-day	35	35									
Spraying	pers-day	2	2									
Manure and fertilizer application	pers-day	1	3									
Water supply	pers-day	3	3									
Drying & packing	pers-day	3	3									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW												
production level %			90%	100%	110%	110%	115%	115%	115%	115%	115%	115%
Harvest	tonnes	4.2	3.78	4.2	4.62	4.62	4.83	4.83	4.83	4.83	4.83	4.83
Post-harvest loss %	%	15%	15%	15%	10%	7%	7%	5%	5%	5%	5%	5%
Post-harvest dry rice	tonnes	2	2	2	3	3	3	3	3	3	3	3
Autoconsumption	tonnes	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
OUTFLOW												
Inputs												
Rice seed	kg	84	84	84	84	84	84	84	84	84	84	84
Land preparation (tractor)	day	1	1	1	1	1	1	1	1	1	1	1
Harvest (combine)	day	1	1	1	2	2	2	2	2	2	2	2
Herbicides	lt	1	4	4	4	4	4	4	4	4	4	4
Fertilizer composite NPK	bag	2	2	2	3	3	3	3	3	3	3	3
Transport/loading	tonnes	2	2	2	3	3	3	3	3	3	3	3
Labour												
Land clearing	pers-day	2	2	2	2	2	2	2	2	2	2	2
Sowing	pers-day	15	15	15	15	15	15	15	15	15	15	15
Transplanting	pers-day	35	35	35	35	35	35	35	35	35	35	35
Spraying	pers-day	1	2	2	2	2	2	2	2	2	2	2
Manure and fertilizer application	pers-day	1	3	3	3	3	3	3	3	3	3	3
Water supply	pers-day	3	3	3	3	3	3	3	3	3	3	3
Drying & packing	pers-day	3	3	3	4	4	5	5	5	5	5	5
Total Labour skilled	pers-day	2	5	5	5	5	5	5	5	5	5	5
Total Labour unskilled	pers-day	58	58	58	59	59	60	60	60	60	60	60
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Rice	$US	700	708	787	917	947	990	1012	1012	1012	1012	1012
Investments												
Inputs												
Rice seed	$US	55	80	80	80	80	80	80	80	80	80	80
Land preparation (tractor)	$US	61	61	61	61	61	61	61	61	61	61	61
Harvest (combine)	$US	96	96	96	191	191	191	191	191	191	191	191
Herbicides	$US	20	80	80	80	80	80	80	80	80	80	80
Fertilizer composite NPK	$US	58	65	72	84	87	91	93	93	93	93	93
Transport/loading	$US	14	12	14	16	17	17	18	18	18	18	18
Labour												
Total skilled	$US	14	35	35	35	35	35	35	35	35	35	35
Total unskilled	$US	348	348	348	354	354	360	360	360	360	360	360
Total production costs		666	777	786	901	905	915	918	918	918	918	918
Net Income		34	-69	2	15	43	75	94	94	94	94	94
Incremental			-102	-32	-18	9	41	60	60	60	60	60
Return on family labour day		1	-1	0	0	1	1	2	2	2	2	2
	NPV @10%	40										
	IRR @ 10%	15%										

Longan fruit

Cambodia AIMS final design	Intervention: on existing plantations,GAP and introduction of drip irrigation for better harvest, orchid management and pruning											
crop budget: Longan plantation	**FINANCIAL**											
Parameters	unit	WOP	WP									
Plot size	ha	1	1									
Average harvest per tree/year	kg	100	150									
Longan tree	tree	155	155									
Agri-tools	set	1	1									
Land preparation (ploughing)	day	2	2	150								
Water pumping @ cost of diesel	L	0	105									
Sprinklers	unit	0	465									
Insecticide	lt	2	2									
Fertilizer composite NPK	bag	15	31									
Planting	pers-day	30	30									
weeding	pers-day	15	20									
Manure and fertilizer application	pers-day	40	93									
Spraying	pers-day	24	24									
Orchid management & maintenance	pers-day	20	30									
Harvesting 100 kg/day	pers-day	0	465									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW												
production level %			65%	75%	70%	80%	90%	100%	100%	100%	100%	100%
Harvest	kg	15500	15113	17438	16275	18600	20925	23250	23250	23250	23250	23250
Post-harvest loss %	%	5%	5%	5%	4%	3%	3%	2%	2%	2%	2%	2%
Post-harvest	kg	14725	14357	16566	15624	18042	20297	22785	22785	22785	22785	22785
OUTFLOW												
Inputs												
Longan tree	tree	155	155	-	-	-	-	-	-	-	-	155
Agri-tools	set	0.25	1				1					1
Land preparation (ploughing)	day	2	2	-	-	-	-	-	-	-	-	2
Water pumping @ cost of diesel	L	0	105	105	105	105	105	105	105	105	105	105
Sprinklers	unit	0	465			465			465			465
Insecticide	lt	1	2	2	2	2	2	2	2	2	2	2
Fertilizer composite NPK	bag	15	31	31	31	31	31	31	31	31	31	31
Labour												
Planting	pers-day	30	30									30
weeding	pers-day	15	20	20	20	20	20	20	20	20	20	20
Manure and fertilizer application	pers-day	40	93	93	93	93	93	93	93	93	93	93
Spraying	pers-day	24	24	24	24	24	24	24	24	24	24	24
Orchid management & maintenance	pers-day	20	30	30	30	30	30	30	30	30	30	30
Harvesting 100 kg/day 300kg/tree	pers-day	155	151	174	163	186	209	233	233	233	233	233
Total Labour skilled	pers-day	24	54	54	54	54	54	54	54	54	54	54
Total Labour unskilled	pers-day	260	294	287	276	299	322	346	346	346	346	376
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Longan fruit	$US	18406	17946	20707	19530	22553	25372	28481	28481	28481	28481	28481
Investments												
Pump machine	$US		250									
Irrigation system (265$/0.1ha)	$US		2650									
Irrigation Maintenabce 10%	$US		290	290	290	290	290	290	290	290	290	290
Inputs												
Longan tree	$US	155	155									155
Agri-tools	$US	32	126				126					126
Land preparation (ploughing)	$US	123	123	-	-	-	-	-	-	-	-	123
Water pumping @ cost of diesel	$US	0	95	95	95	95	95	95	95	95	95	95
Sprinklers	$US	0	884	-	-	884	-	-	884	-	-	884
Insecticide	$US	40	80	80	80	80	80	80	80	80	80	80
Fertilizer composite NPK	$US	432	893	893	893	893	893	893	893	893	893	893
Labour												
Total skilled	$US	168	378	378	378	378	378	378	378	378	378	378
Total unskilled	$US	1560	1765	1724	1655	1794	1934	2073	2073	2073	2073	2253
Total production costs		2509	7688	3460	3390	4413	3795	3808	4692	3808	3808	5276
Net Income		15897	10259	17247	16140	18140	21577	24673	23789	24673	24673	23205
Incremental			-5638	1351	243	2243	5680	8776	7893	8776	8776	7309
Return on family labour day		61	35	60	59	61	67	71	69	71	71	62
	NPV @10%	20870										
	IRR @ 10%	50%										

Vegetables

Cambodia AIMS final design	Intervention: improved varieties, GAP, intensification , drip irrigation, integrated pest management											
cropbudget: Vegetables Green Leafy	**FINANCIAL**											
Parameters	unit	WOP	WP									
Plot size	ha	1	1									
grow cycle	cycle	1	3									
seeds (chinese Kale)	pack	120	360	3 cycles								
Land preparation (tractor)	day	1	3									
Land preparation ridging (tractor)	day	1	3									
Herbicides	lt	1	2									
Insecticide	lt	1	2									
Fertilizer composite NPK	bag	2	6									
Fuel for pump	lt	0	640									
Irrigation operation	pers-day		20									
Digging waterpond (200m3 per 10 day)	pers-day		20									
Sowing	pers-day	5	3									
Transplanting	pers-day	0	15									
Manure and fertilizer application	pers-day	2	0	will go with the drip								
Weeding	pers-day	15	30									
Spraying	pers-day	4	10									
Harvesting /stocking	pers-day	3	10									
Transport from field	pers-day	1	4									
Shelling/cleaning/Packing	pers-day	2	6									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW												
production level %			100%	110%	120%	130%	140%	140%	150%	150%	150%	150%
Harvest	kg	5000	5000	5500	6000	6500	7000	7000	7500	7500	7500	7500
Post-harvest loss %	%	20%	20%	15%	10%	7%	5%	5%	5%	5%	5%	5%
Post-harvest	kg	4000	4000	4675	5400	6045	6650	6650	7125	7125	7125	7125
Autoconsumption	kg	0	0	0	0	0	0	0	0	0	0	0
OUTFLOW												
Inputs												
seeds	kg	120	360	360	360	360	360	360	360	360	360	360
Land preparation (tractor)	day	1	3	3	3	3	3	3	3	3	3	3
Land preparation ridging (tractor)	day	1	3	3	3	3	3	3	3	3	3	3
Herbicides	lt	1	2	2	2	2	2	2	2	2	2	2
Insecticide	lt	1	2	2	2	2	2	2	2	2	2	2
Fertilizer composite NPK	bag	2	6	6	6	6	6	6	6	6	6	6
Fuel for drip- irrigation	lt	0	240	400	640	640	640	640	640	640	640	640
Labour												
Irrigation operation	pers-day	-	20	20	20	20	20	20	20	20	20	20
Digging waterpond (200m3 per 10 day)	pers-day	-	20	-	-	-	-	-	-	-	-	-
Planting & gap filling	pers-day	5	3	3	3	3	3	3	3	3	3	3
Manure and fertilizer application	pers-day	2	-	-	-	-	-	-	-	-	-	-
Weeding	pers-day	15	30	30	30	30	30	30	30	30	30	30
Spraying	pers-day	4	10	10	10	10	10	10	10	10	10	10
Harvesting /stocking	pers-day	3	3	5	6	7	10	10	10	10	10	10
Transport from field	pers-day	1	4	4	5	5	6	6	6	6	6	6
Shelling/cleaning/Packing	pers-day	2	6	6	7	7	9	9	9	9	9	9
Total Labour skilled	pers-day	4	10	10	10	10	10	10	10	10	10	10
Total Labour unskilled	pers-day	28	86	86	86	86	86	86	86	86	86	86
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Vegetables Kale	$US	4000	4000	4675	5400	6045	6650	6650	7125	7125	7125	7125
Investments												
Pump machine	$US		250									
Irrigation system (265$/0.1ha)	$US		2650									
Irrigation Maintenance 10%	$US		290	290	290	290	290	290	290	290	290	290
Inputs												
seeds	$US	96	288	288	288	288	288	288	288	288	288	288
Land preparation (tractor)	$US	61	184	184	184	184	184	184	184	184	184	184
Land preparation ridging (tractor)	$US	15	45	45	45	45	45	45	45	45	45	45
Herbicides	$US	20	40	40	40	40	40	40	40	40	40	40
Insecticide	$US	40	80	80	80	80	80	80	80	80	80	80
Fertilizer composite NPK	$US	58	173	173	173	173	173	173	173	173	173	173
Fuel for drip- irrigation	$US	-	216	360	576	576	576	576	576	576	576	576
Labour												
Total skilled	$US	28	70	70	70	70	70	70	70	70	70	70
Total unskilled	$US	168	516	516	516	516	516	516	516	516	516	516
Total production costs		486	4802	1756	1972	1972	1972	1972	1972	1972	1972	1972
Net Income		3514	-802	2919	3428	4073	4678	4678	5153	5153	5153	5153
Incremental			-4316	-595	-86	559	1164	1164	1639	1639	1639	1639

Chicken

Cambodia AIMS final design	Intervention: introduction vaccinated chicks, intesification of chicken production											
crop budget: Chicken production	**FINANCIAL**											
Parameters	unit	WOP	WP									
Plot size	acre	10	10									
Chicken house (approx 100 chicken)	unit	1	3									
Chicks	chick	100	300									
Chicks (vaccinated)	chick	0	300									
Commercial feed	kg	50	200									
Local feed	kg	400	1100									
Vaccine / medicine	set	0	3									
Netto weight in kg	1	70%	40%									
	1.8	30%	60%									
Feeding	pers-day	6	18									
Maintenance /repair	pers-day	2	6									
Physical budget												
Items	Unit	Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
INFLOW												
Chicken	chicken	100	100	200	300	300	300	300	300	300	300	300
Mortality rate%	%	30%	20%	15%	10%	10%	5%	5%	5%	5%	5%	5%
Production	kg	80	93	189	289	289	295	295	295	295	295	295
OUTFLOW												
Inputs												
Chicken house (approx 100 chicken)	unit	1	1	2	-	-	3	-	-	-	-	3
Chicks	chick	100										
Chicks (vaccinated)	chick	0	100	200	300	300	300	300	300	300	300	300
Commercial feed	kg	50	150	200	200	200	200	200	200	200	200	200
Local feed	kg	400	300	700	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Labour												
Feeding	pers-day	6	15	15	15	15	15	15	15	15	15	15
Maintenance /repair	pers-day	2	5	5	5	5	5	5	5	5	5	5
Total Labour skilled	pers-day	0	0	0	0	0	0	0	0	0	0	0
Total Labour unskilled	pers-day	8	20	20	20	20	20	20	20	20	20	20
Financial Budget												
Items		Without	With Project									
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10
Value of production												
Chicken	$US	278	326	662	1012	1012	1033	1033	1033	1033	1033	1033
Investments												
chicken house	$US	35	35	70	0	0	105	0	0	0	0	105
Inputs												
Chicks	$US	25										
Chicks (vaccinated)	$US	0	125	250	375	375	375	375	375	375	375	375
Commercial feed	$US	30	90	120	120	120	120	120	120	120	120	120
Local feed	$US	60	45	105	165	165	165	165	165	165	165	165
Labour												
Total skilled	$US	0	0	0	0	0	0	0	0	0	0	0
Total unskilled	$US	48	120	120	120	120	120	120	120	120	120	120
Total production costs	$US	138	415	665	780	780	885	780	780	780	780	885
Net Income	$US	140	-89	-3	232	232	148	253	253	253	253	148
Incremental			-230	-144	91	91	7	112	112	112	112	7
Return on family labour day		18	-4	0	12	12	7	13	13	13	13	7
	NPV @10%	32										
	IRR @ 10%	12%										

Beef fattening

Cambodia AIMS final design	Intervention: introduction beef fattening only for wet season												
crop budget: Beef fattening	**FINANCIAL**												
Parameters	unit	WOP	WP										
Plot size	ha	1	1										
Cattle	cow		4										
Feed & treatment	cow	0	0										
Fattening	days		90										
Animal care	pers-day	0	40										
Marketing	pers-day		4										
Physical budget													
Items	Unit	Without	With Project										
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10	
INFLOW													
Cattle (chest 160 cm)	cow	0	1	1	2	2	3	3	4	4	4	4	
OUTFLOW													
Inputs													
Cattle (chest 120 cm)	cow	0	1	1	2	2	3	3	4	4	4	4	
Feed & treatment / cow	cow		1	1	2	2	3	3	4	4	4	4	
Labour													
Animal care	pers-day	0	40	40	80	80	120	120	40	40	40	40	
Marketing	pers-day	0	4	4	4	4	4	4	5	5	5	5	
Total Labour skilled	pers-day	0	4	4	4	4	4	4	5	5	5	5	
Total Labour unskilled	pers-day	0	40	40	80	80	120	120	40	40	40	40	
Financial Budget													
Items		Without	With Project										
		Project	Y1	Y2	Y3	Y4	Y5-10	Y 6	Y 7	Y 8	Y 9	Y 10	
Value of production													
Cattle (chest 160 cm)	$US	0	750	750	1500	1500	2250	2250	3000	3000	3000	3000	
Investments													
Inputs													
Cattle (chest 120 cm)	$US	0	550	550	1100	1100	1650	1650	2200	2200	2200	2200	
Feed & treatment / cow	$US	0	70	70	140	140	210	210	280	280	280	280	
Labour													
Total skilled	$US	0	28	28	28	28	28	28	35	35	35	35	
Total unskilled	$US	0	240	240	480	480	720	720	240	240	240	240	
Total production costs	$US	0	888	888	1748	1748	2608	2608	2755	2755	2755	2755	
Net Income	$US	0	-138	-138	-248	-248	-358	-358	245	245	245	245	
Incremental			-138	-138	-248	-248	-358	-358	245	245	245	245	
Return on family labour day		#DEEL/0!	-3	-3	-3	-3	-3	-3	6	6	6	6	
	NPV @10%	-581											
	IRR @ 10%	#GETAL!											

ANNEX 2: ECONOMIC ANALYSIS

Table 1: Project Economic Analysis - Full Project Cost

Table 1: Project Economic Analysis - Full Project Cost
(constant 2016 values)

(US 000)		PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8-20	PY9	PY10-15	PY11	P12	PY13	PY14	PY15	PY16	PY17	PY18
Total Programme Net Benefits		-10712	-43936	-68969	-68649	-8511	46081	115302	165332	198535	215218	223768	228185	230941	#####	240006	#####	241613	241613
Programme Costs																			
Investment Costs		3119	11710	16427	16204	8920	1673	0	0	0	0	0	0	0	0	0	0	0	0
Recurrent Costs		877	1441	1250	1082	1016	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008
Total Programme Costs		3995	13152	17680	17289	9940	2686	1014	1008	1008	1008	1008	1013	1008	1014	1008	1008	1008	1013
Total Project Incremental Net Benefits		-14707	-57088	-86648	-85938	-18451	43394	114288	164324	197527	214210	222760	227172	229933	#####	238998	#####	240605	240600
IRR	**31.9%**																		
NPV @10% (US 000)	685,248																		
Programme Benefit Stream		-10712	-43936	-68969	-68649	-8511	46081	115302	165332	198535	215218	223768	228185	230941	#####	240006	#####	241613	241613
NPV @10% (US 000)	736730																		
Programme Cost Stream		3995	13152	17680	17289	9940	2686	1014	1008	1008	1008	1008	1013	1008	1014	1008	1008	1008	1013
NPV @10% (US 000)	51481																		
Programme Net Incremental Benefits		-14707	-57088	-86648	-85938	-18451	43394	114288	164324	197527	214210	222760	227172	229933	#####	238998	#####	240605	240600
NPV @10% (US 000)	685248																		

Switching Values	Appraisal Value	Switching Value	% Change
Incremental Benefits	736730	51481	-93%
Incremental Costs	51481	736730	1331%

Table 2. Aggregated production benefits

Table 2. Aggregated production benefits

Model	Annual Net Benefits-before financing			Aggregated Numbers	Economic Aggregated Annual Net benefits, in MM USD
	WOP Project	WP -Full Develop	Incremental		
Farm 1	1727	7091	5364	10500	56
Farm 2	11648	17556	5909	17500	103
Farm3	4923	8588	3665	24500	90
Average	***6099***	***11078***	***4979***	***17500***	

Phasing of beneficiaries

Net Benefits per year in $US '000	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Y9	Y10	Y11	Y12	Y13	Y14
Incremental NB FARM 1	-3329	70	1169	3111	4036	4347	5249	5370	5492	5141	5492	5492	5492	5492
no.beneficiaries	525	2100	3150	3150	1050	525			0	0	0			
1	-1747657	36991	613940	1633294	2119050	2282198	2755583	2819351	2883119	2699260	2883119	2883119	2883119	2883119
2		-6990627	147966	2455762	6533174	8476201	9128793	11022334	11277404	11532474	10797042	11532474	11532474	11532474
3			-10485940	221949	3683643	9799762	12714302	13693189	16533501	16916106	17298711	16195563	17298711	17298711
4				-10485940	221949	3683643	9799762	12714302	13693189	16533501	16916106	17298711	16195563	17298711
5					-3495313	73983	1227881	3266587	4238101	4564396	5511167	5638702	5766237	5398521
6						-1747657	36991	613940	1633294	2119050	2282198	2755583	2819351	2883119
Sub total in USD '000	-1748	-6954	-9724	-6175	9063	22568	35663	44130	50259	54365	55688	56304	56495	57295
Incremental NB FARM 2	-5821	-532	-837	580	2812	4852	4384	4936	4936	3925	4936	4936	4936	4936
No. Benficiaries	875	3500	5250	5250	1750	875	0	0	0	0	0	0	0	0
1	-5093200	-465325	-732305	507282	2460829	4245161	3836175	4319387	4319387	3434751	4319387	4319387	4319387	4319387
2		-20372798	-1861299	-2929220	2029129	9843316	16980642	15344700	17277546	17277546	13739004	17277546	17277546	17277546
3			-30559198	-2791949	-4393830	3043693	14764973	25470963	23017050	25916319	25916319	20608507	25916319	25916319
4				-30559198	-2791949	-4393830	3043693	14764973	25470963	23017050	25916319	25916319	20608507	25916319
5					-10186399	-930650	-1464610	1014564	4921658	8490321	7672350	8638773	8638773	6869502
6						-5093200	-465325	-732305	507282	2460829	4245161	3836175	4319387	4319387
Sub total in USD '000	-5093	-20838	-33153	-35773	-12882	6714	36696	60182	75514	80597	81809	80597	81080	84618
Incremental NB FARM 3	-3160	-538	-185	1135	2292	3082	3073	3192	3982	3543	3982	3982	3982	3982
No. Benficiaries	1225	4900	7350	7350	2450	1225	0	0	0	0	0	0	0	0
1	-3871167	-659498	-226956	1390690	2807489	3775774	3764007	3910086	4878150	4340000	4878150	4878150	4878150	4878150
2		-15484668	-2637994	-907823	5562762	11229956	15103098	15056026	15640343	19512599	17360000	19512599	19512599	19512599
3			-23227002	-3956990	-1361734	8344143	16844933	22654647	22584040	23460515	29268899	26040000	29268899	29268899
4				-23227002	-3956990	-1361734	8344143	16844933	22654647	22584040	23460515	29268899	26040000	29268899
5					-7742334	-1318997	-453911	2781381	5614978	7551549	7528013	7820172	9756300	8680000
6						-3871167	-659498	-226956	1390690	2807489	3775774	3764007	3910086	4878150
Sub total in USD '000	-3871	-16144	-26092	-26701	-4691	16798	42943	61020	72763	80256	86271	91284	93366	96487
TOTAL in USD	**-10712**	**-43936**	**-68969**	**-68649**	**-8511**	**46081**	**115302**	**165332**	**198535**	**215218**	**223768**	**228185**	**230941**	**238400**

Table 3: Number of beneficiaries

Table 3: number of beneficiaries

		Adoption rate per Project Year						
Items	target HH	**Y 1**	**Y 2**	**Y 3**	**Y 4**	**Y 5**	**Y6**	**Total**
FARM 1 Plateau & Mountains Zone	**15000**							
adoption rate	**70%**	**5%**	**20%**	**30%**	**30%**	**10%**	**5%**	
no. of HH	**10500**	*525*	*2,100*	*3,150*	*3,150*	*1,050*	*525*	10500
cummulative no. of HH		**525**	**2,625**	**5,775**	**8,925**	**9,975**	**10,500**	
FARM 2 Tonle Sap Zone	**25000**							
adoption rate	**70%**							
no. of HH	**17500**	*875*	*3,500*	*5,250*	*5,250*	*1,750*	*875*	*17500*
cummulative no. of HH		**875**	**4,375**	**9,625**	**14,875**	**16,625**	**17,500**	
FARM 3 Plain Zone	**35000**							
adoption rate	**70%**							
no. of HH	**24500**	*1,225*	*4,900*	*7,350*	*7,350*	*2,450*	*1,225*	24500
cummulative no. of HH		**1,225**	**6,125**	**13,475**	**20,825**	**23,275**	**24,500**	
Total Target. of HH	75000	**2,625**	**10,500**	**15,750**	**15,750**	**5,250**	**2,625**	
Total cummulative no. of HH	**52500**	**2,625**	**13,125**	**28,875**	**44,625**	**49,875**	**52,500**	

Appendix 11: Draft project implementation manual

Annotated table of contents

	Section and Sub-Section	Notes
Part 1: Introduction, Purpose, Strategy And Cross-Cutting Issues		
1	**Introduction**	
	Introduction to AIMS	
	Introduction to the PIM	
	Intended users of the PIM	
2	**Purpose Of Aims**	
	Reason for AIMS	Brief summary of the diagnosis that lead to the design of AIMS
	Expected results	Description of the expected results of AIMS with reference to the Results Framework (which will be a an annex)
3	**Implementation Strategy**	Describes key elements of the AIMS approach, how these elements work together, the assignment of roles, the phased approach to implementation in different VCs
4	**Principles and Approach**	
	Market-driven	Define how the market orientation of AIMS will be mainstreamed in all activities
	Private sector-led	Define how private actors (farmers, businesses, ACs etc) will lead the investment prioritization and project activities. Explain role of MSPs, contract farming facilitation and other tools in achieving this. Relate this to the functioning of the VC Innovation Fund and other project activities.
	Inclusiveness	Defines core principles of AIMS for inclusive dialogue and participation at all levels
	Gender Mainstreaming	Defines core principles for mainstreaming gender in AIMS
	Mainstreaming Climate Resilience	Defines how CCA / climate resilience is mainstreamed in all parts of AIMS and how this is systematically verified.
Part 2: Components, Outputs And Activities		
5	**Component 1: Value Chains Development**	
	Results and Performance Measurement	Defines the time-bound results of Component 1 and how performance will be measured
	VC Brokering and Facilitation	Describe the objectives and overall approach. Describe the detailed processes of initiating and running an ongoing MSP. Describe the approaches to be used relating to contract farming.
	Market oriented social mobilization	Describe the objectives and approaches to be sued. Describe the implementation arrangements include the role of external service providers for SM attached to the Regional Hub Offices
	Sector Development Facility	Describes its purpose and operation. Describe activities eligible to be supported and any specific conditions / requirements. Describe the mechanisms to be used for selection, approval and implementation of activities.
6	**Component 2: Value chain financing**	
	Results and Performance Measurement	Defines the time-bound results of Component 2 and how performance will be measured
	Sub-Component 2.1: Value Chain Innovation Fund	Describes the full guidelines for the operation of the Fund.
	Sub-Component 2.1: Line of credit	Describes the full guidelines for the operation of the Line of Credit
	Sub-Component 2.2: FSP Partnerships	Describes the processes, activities and outputs of Comp 2.2

Part 3: Implementation arrangements		
7	**Roles And Responsibilities**	
	The AIMS Steering Committee	Include Terms of Reference for Steering committee and Code of Conduct for SC Members
	MEF	As Chair of SC and as Representative of the Borrower
	MoC	As Executing Agency Including relative roles of DGDT and DICO
	Regional Hub Offices	Include roles, responsibilities and also organizational arrangements Describe how the participation of the private sector and farmers will be achieved in the regional hub Offices Describe Social Mobilization teams and how they will be organized and managed
	Provincial agencies	Relative roles of PDoC, PDA and others
8	**Planning, budgeting**	
	Results based planning and resource allocation	
	Preparation and consolidation of the AWPB	
	Key approval and reporting instruments	
9	**Monitoring, Evaluation And Reporting**	
	Overview	
	RGC reporting, DCED Standard and RIMS+	Describe how these work together as a single unified M&E framework and system
	Results chains	Describe their purpose and how they should be prepared. Describe how they are to be used communicating the project, identifying intervention points and tracking key indicators of change in the VCs
	M&E Matrix	Provide template and guidance for preparing a practical M&E Matrix to guide development of MIS and other M&E activities.
	MIS	Describe main elements of MIS and process to develop, test and use it. Describe main audience and users of expected information, reports and analysis.
	Major Impact Survey	Describe main required surveys
	Rolling baselines for VC clusters	Describe approach to be followed for rolling baselines including: • Household survey • Traders/business survey • Key informant interviews • Secondary data
	VC Tracking	Describe purpose and main elements of VC to be tracked, frequency of monitoring and means of tracking.
	Farmer Tracking via household record books (Farm Diaries)	Describe purpose and provide example of household books for one crop and one livestock VC
	Other Surveys	Outline expect requirements for other surveys, including annual outcome survey
	Reporting	
10	**Knowledge management and communication**	
	KMC Strategy	Outline purpose and process for preparation
	KM Themes	Outline initial set of KM themes and KM product deliverables over first 24 months
	Communications	Describe purpose and types of communication. Describe roles, responsibilities and resources for communication at each level in the project
11	**Financial Management, Procurement And Administration**	
	Financial Management	Describe detailed practices and procedures. Basis to be RGC SOP with necessary adjustments to meet IFAD and AIMs requirements
	Procurement	
	Administration	

12	**Implementation Work Plan**	
	Work Plan	Presents a consolidated, Gantt-Chart format implementation plan including highlighting of critical path and cross-linkages between components

Appendix 12: Compliance with IFAD policies

1. The design of AIMS complies with IFAD policies and strategies on targeting, gender, indigenous peoples, environmental and natural resource management, and private-sector engagement.

Principle of engagement 2: Targeting

2. Compliance with IFAD's targeting policy is detailed in Appendix 2 (Rural Poverty, Targeting and Gender) and the linked Working Paper (Social and Economic Inclusion).

3. The main target groups correspond with IFAD's target group and draw on recent and detailed data about poverty trends and dynamics. The data makes it possible to be very precise about the numbers, locations and characteristics of the poor. The analysis distinguishes the needs of different target group types based on their key assets of land, labour and financial capital and draws out the implications of these differences for entry to Value Chain activities. The Value Chains have been selected for their: (i) low cost entry points; (ii) relatively low labour and**/or** land requirements; (iii) accessibility to women, as well as robust demand across different markets. The limitations of the chronically poor and poor, characterised in Cambodia as ID Poor 1 and ID Poor 2, for VC activities have been identified as measures to support their capacity have been mainstreamed into the Project. The design also includes a system for excluding non-poor households and preventing elite capture.

4. The numbers and characteristics of Indigenous People have been noted and the project interventions most relevant to their needs by VC and Province have been noted, though for reasons explained, it is not advised to target them directly.

5. Geographic poverty targeting has included Provinces that have both a high percentage and number of poor, and that the IFAD COSOP has selected as priority Provinces; five of the selected Provinces are amongst the consistently poorest in 3 different poverty measurement methodologies. The analysis points to broad patterns of poverty across AEZ that can be identified from the data, but suggests that, given the significant differences across AEZ and the rapid pace of the Cambodian social economy, area specific poverty criteria have to be validated to fine-tune the targeting approach. Accordingly, an approach to cluster identification has been developed that combines both poverty and market assessment and bases both on criteria relevant to the VC cluster.

6. Empowerment is provided mainly through business and financial literacy, through building direct linkages between households and service providers and through supporting them to negotiate their own interests with a minimum and decreasing levels of project support.

7. Smallholder risk and risk mitigation has been squarely addressed and placed at the centre of the Project. The Project will seek an evidence-based assessment of the potential of different levels of investment to provide economic returns that are conscious of the vulnerabilities of poor households. This awareness has contributed to the approach of supporting first movers to crowd-in VC services that enable more vulnerable households to replicate.

8. The management and implementation of social and economic inclusion objectives have been mainstreamed throughout the terms of reference of project management. A dedicated team of Social Mobilisers and Business Literacy Facilitators will be fielded by an experienced NGO, however explicit and specific responsibility for supporting the inclusion of the poor and the non-poor is also mandated to all other contracted staff. The design is based on in-depth discussion of procedural issues, in particular those for access to matching grants, to ensure that eligibility, selection and processing of these are transparent and achieve a maximum impact on the target poor; these aspects are presented in Annex 4.

9. The design has put the M&E system, supported by regularly updated field data, linked to a results chain and theory of change for each VC, and linked to national poverty datasets at the centre of the Project where it is intended to form a common thread towards log-frame goals. The M&E will also be used to inform Knowledge Management which the terms of reference mandate to support evidence based models of VC potential adapted to different household poverty types, as well as policy discussion of the implications of these for poverty reduction and livelihoods at a more general level.

10. The Knowledge Management outputs will also be used more practically to demonstrate, in simple and adapted format, the potential of the suggested investments to poor and non-poor households.

11. The targeting and inclusion design is based on extensive review of the IFAD portfolio in Cambodia and the IFAD financed High Value Agricultural Project in Nepal, which has used similar methods for inclusion with notable success in a social and economic environment that is far more challenging.

12. The sustainability of the approach has been carefully considered and is already inherent in the design of the entire Project, which is oriented towards competitive, subsidy and project free market engagement. Supporting embedded and eventually commercialised Business and Financial Literacy Advisors in the community, drawing on best practice lessons from the Cambodian context, supports the sustainability of the approach to targeting and inclusion.

Principle of engagement 3: supporting the empowerment of poor rural people

13. The broad approach to empowerment has already been largely described above. In summary, it is based on a differentiation of the capacities, resources and needs of different poverty groups and their support through risk sensitive VC opportunities. The empowerment approach is to focus on business and financial literacy, drawing on the detailed analysis presented in the Working Paper, which shows that high levels of debt constitute a principal vulnerability of the poor. The project approach is to focus on this vulnerability and to do it well, enabling project households to make suitable choices.

14. There is no specific support to group formation as such, it will be driven by market requirements and local preferences, as well as for the processing of group loans. However drawing on experience elsewhere, particularly Nepal, interventions that support VC participation amongst mixed poverty level households in a locality, supported by solid business and financial literacy, have contributed significantly to empowerment as poor households benefit from the demonstration.

15. In addition, the VCs have been specifically chosen for their copy-cat potential, where greater volumes will crowd-in services and where the land-labour-capital profiles of investment will not lead to mechanisation or elite VC capture. Finally, as noted above, the direct linkages created with service providers and low levels of direct project support are intended to further empower poor households to make independent choices.

Principle of engagement 4: promoting gender equality & women's empowerment

16. The Working Paper on Social and Economic Inclusion presents an overview of gender dynamics in the Cambodian context, in particular how these affect women's control over land, labour and financial capital. The gender division of labour in the selected VCs has been considered, as well as barriers for women to participate in project activities. The VCs have been selected to be particularly accessible to the existing gender division of labour, particularly the vegetable, chicken and silk VCs. Women traditionally manage household finances and it is expected that a majority of BLFs will be women. The design provides for gender quotas across project participants, BLFs and the Social Mobiliser Teams, which are realistic and based on extensive discussions with NGOs fielding extension teams.

17. The gender strategy will ensure that training materials, meetings and events, especially the multi-stakeholder platform events are designed and organized so that women and men can easily attend. Gender outcomes, including the proportion of women who participate in the activities and any differential benefits gained or lost by women and women-headed households, will be the responsibility of the Social Mobilisation Teams and ultimately the Regional Hub Managers. The design does not specify any gender quotas for the national PMO nor for the Regional Hubs. It is noted that policy-making and management circles are male-dominated but it is not recommended that this Project address this issue nor dilute the focus, namely to support the participation of poor rural women. However notices for contracting project staff will follow the usual gender conventions of equal rights and opportunity.

Principle of engagement 5: creating viable opportunities for rural youth

18. The creation of specific opportunities for youth is dealt with in a number of general and specific operational ways. Expectations at design are that project investments will not only create farm-based livelihood strategies for rural youth (16-29) that provide alternatives to migration, but will also increase the demand for agriculture-related skills. It is likely that many Business Literacy Facilitators (BLF) will be recruited from the youth and creating a savings habit and improving financial literacy among rural youth will be important to support their resilience to rapidly changing socio-economic options and environmentally driven risks.

19. The Project will not directly target youth or offer vocational training adapted to their demographic profile, but the rolling cluster-base lines, as well as household diaries and feed-back from the Multi-Stakeholder Platforms (MSPs) will inform the Regional Hubs of both constraints and opportunities in the participation of rural youth. The Social Mobiliser Managers, as part of their general mandate to support inclusion, will be responsible for representing these constraints and opportunities in Regional Hub meetings and exploring whether, within the limits of Project activities, these can be addressed. More generally, project M&E will disaggregate data by age in order to contribute towards the value chain specific development of the results chain as well as sector analysis. The design will support a collaboration with both PADEE and ASPIRE to extend support to youth once there is more information on their interest and needs specific to the clusters.

Environment and Natural Resource Management

Key potential impacts

20. Although the final project target areas will be determined during implementation, it is asserted that AIMS activities will not engage in the construction of large infrastructures-rural roads, irrigation schemes…-that will cause economic resettlement or physical displacement and generate social adverse impact to local communities.

21. AIMS will not impinge on environmental "sensitive areas" such as existing protected areas, biodiversity conservation and natural forests.

22. The issue of land degradation identified in the North West provinces-case of cassava in Pailin and Battambang- in the Tonle Sap agro ecological zone could be remedied by a series of mitigation measures such as contour intercropping, adequate integrated nutrient balance, minimum and contour tillage at sloping areas, cover crop production system and production of clean planting materials.

23. Use of agro chemicals is noticeable for rice and others crops. Nevertheless, the issue could be alleviated with the conduct of Integrated Pest Management (IPM) and the Farmer Field School (FFS). In the current situation, sessions on IPM and FFS are working well for rice and vegetables. The project should cooperate with MAFF and its line departments to implement demonstrations and design Farmer Field School extended to others value change in the project target areas. The General Directorate of Agriculture (GDA), Royal University of Agriculture (RUA) and Cambodian Agricultural Research and Development Institute (CARDI) under MAFF, have developed Farmer Field School for cassava.

24. Funds for resilient and productive infrastructures in particular for water infrastructures. Temperature keeps on increasing over the last three years, the national all-time record high of 42.6°C (108.7°F) was reached at Preah Vihear on April 15th2016. If drought situation becomes distinctly worse, then it may be necessary for the RGC and IFAD to explore additional financing facilities.

25. Inclusion of Vulnerable households in the project. AIMS will include smallholders into its activities. However, in case the vulnerable families could not be included, the project should collaborate with the Sub-National Administrations and build synergy with others existing project/programmes to build their knowledge on climate change and increase their adaptive capacity.

Climate change and adaptation

26. IFAD has a comprehensive experience in Cambodia in working with smallholders by targeting and mobilizing poor rural women and men. AIMS will be the ninth IFAD supported project. However, moving to the pathway of resilience building, necessitates capacity building on following areas: building environment and climate knowledge at national and sub-national level, assessing vulnerability, enhancing knowledge of adaptation strategies and approaches to integrate environment and climate change into the planning and Monitoring and Evaluation in every IFAD supported project in Cambodia.

27. IFAD could develop its internal capacity including in-country COSOP Team, management and staff of the IFAD supported projects and program and/or Building new partnership wherever institutions/organizations- in and out-country- have a proven experience in the abovementioned field of competency.

Environmental and social category: C

28. The project falls under the category C with negligible adverse impact such as soil erosion and use of agro chemicals that could be alleviated by a series of mitigation measures from the

project activities. The project will not engage in the rehabilitation and construction of large infrastructure that would imply economic resettlement and physical displacement.

29. Currently, the Ministry of Environment is preparing a Law on Environmental Codification and a National Environmental Strategy and Action Plan (NESAP):

    (a) Environmental Codification. A Technical Working Group had been established and a Memorandum of Understanding had been signed with Vishnu a Law Firm in July 2015.The law is comprised of 22 books among which Environmental and Social Impact Assessment (Book IV), National, Regional and local plans and guidelines for SEA (Book V)... The final review is planned for mid-2016 and its enforcement in mid-2017.

    (b) National Environmental Strategy and Action Plan (NESAP). To address the environmental deterioration and to promote the environmental sustainability which is the main source of growth and development, the NESAP 2016-2023will be developed with the support from ADB and RGC. It is expected that NESAP will be approved by Royal Government of Cambodia by December 2016.

30. It is recommended to involve the Ministry of Environment from the next step- Project Appraisal-onwards to guide and advise AIMS as how to conduct an Environmental and Social Assessment in connection with the preparation of the Environmental Codification law and the National Environmental Strategy and Action Plan (NESAB).

Climate risk category: Low

31. The project falls under the category Low as its activities will likely not worsen the Vulnerability status of the target areas. On contrary, it will bring climate Knowledge to communities and local authorities, enable the local authorities to assess vulnerability, facilitate access to resilient extension services, connect both communities and local authorities to the communities of practice and enhance an effective use of water.

32. The conduct of a participatory process of right-based and demand-led nature (See SECAP Note) will empower the communities in increasing their adaptive capacity and enable them to monitor impact of climate change during the course of the project implementation.

33. The Environmental Codification Law includes Climate Change (Book IV), Waste management and pollution (Book X) and Water management (Book XI).An Environment and Climate Change Assessment (ECCA) Report that was produced as part of preparation for the RB-COSOP 2013-18 and has been referred to in preparation of this Annex.

34. The overall impact of the programme on the environment and sustainable management of natural resources is expected to be positive. In particular, the programme will mainstream awareness of and adaptation to climate change into market-oriented smallholder agriculture production, not least so farmers can protect their incomes.

35. AIMS will also actively promote sustainable production systems in all the supported VCs. This is vital to the overall sustainability of impacts because, simply put, if production is unsustainable (as is currently the case for most cassava production) then there will be no product to sell and no VC, so it is not justifiable for AIMS to support the VC. For example, AIMS will promote farmers in the NW to switch to tree fruits such as longan instead of currently unsustainable cassava production. It will also pilot more sustainable production systems for cassava in NW Cambodia - where mechanization is essential. Only if these pilots are successful will support to cassava be scaled up, and if so make a big contribution to rural farmers as there is around 420,000ha.

Appendix 13: Contents of the Project Life File

1. PLF is set up in xdesk and a Dropbox was created to facilitate harvesting of data as well as exchange among the missions members and CPMT.

2. Dropbox PLF gathered +430 files about country context and value chain and is available at: https://www.dropbox.com/sh/lz1nq0z6igaqqfa/AACNpt4mkPt2pA4Vz5u47uA_a?dl=0