
President's report

Proposed loan

Arab Republic of Egypt

**Climate-Resilient on-Farm Water Management in
the Nile Valley**

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Action: The Executive Board is invited to approve the recommendation contained in paragraph 43.

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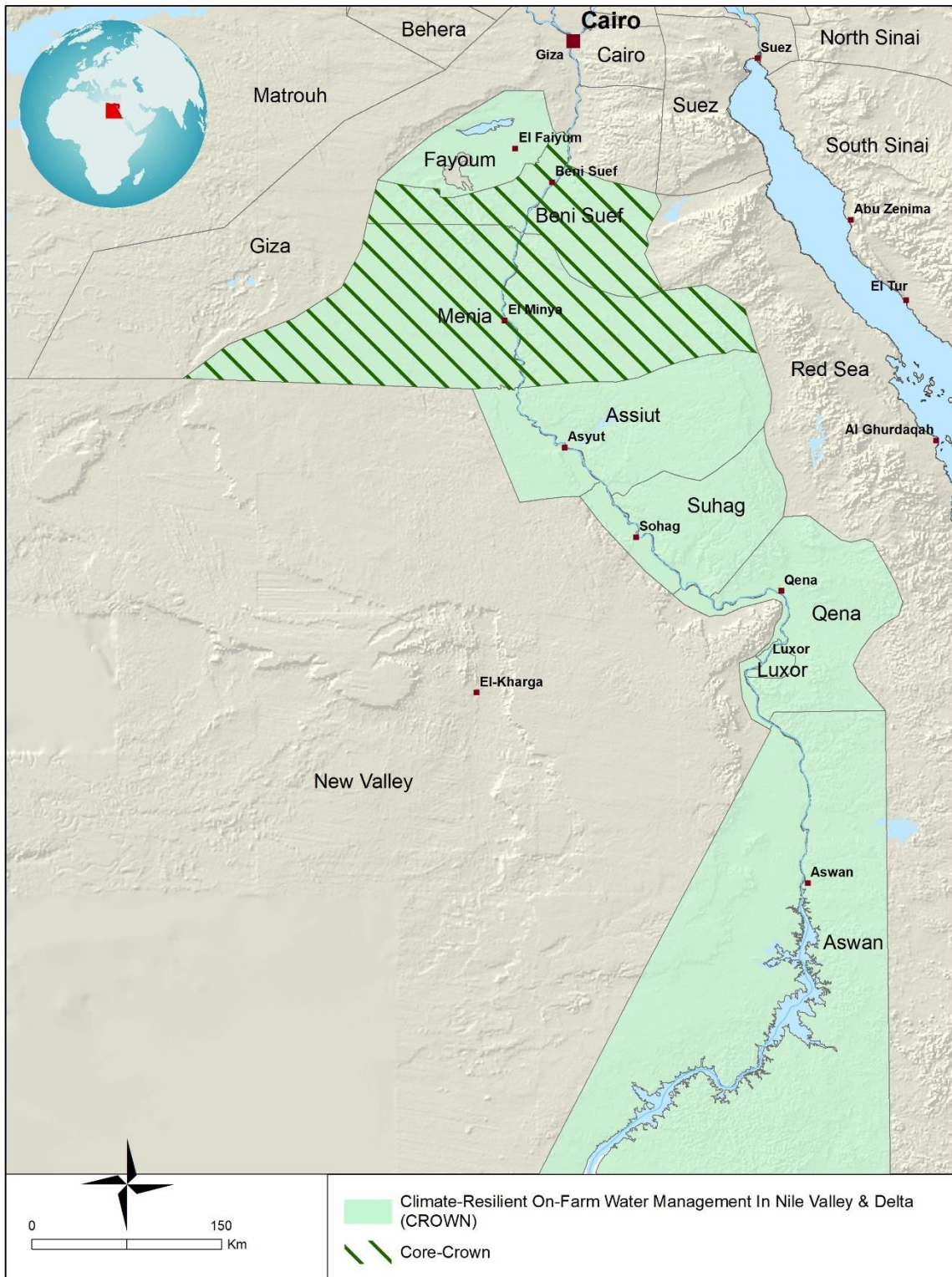
Contents

Map of the project area	ii
Financing summary	iii
I. Context	1
A. National context and rationale for IFAD involvement	1
B. Lessons learned	2
II. Project description	2
A. Objectives, geographical area of intervention and target groups	2
B. Components, outcomes and activities	2
C. Theory of change	3
D. Alignment, ownership and partnerships	3
E. Costs, benefits and financing	4
III. Risk management	8
A. Risks and mitigation measures	8
B. Environment and social category	8
C. Climate risk classification	8
D. Debt sustainability	9
IV. Implementation	9
A. Organizational framework	9
B. Planning, monitoring and evaluation, learning, knowledge management and communications	10
C. Implementation plans	101
V. Legal instruments and authority	11
VI. Recommendation	11
Appendices	
I. Negotiated financing agreement	
II. Logical framework	
III. Integrated project risk matrix	

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Map of the project area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
 Map compiled by IFAD | 09-05-2024

Financing summary

Initiating institution:	IFAD
Borrower/recipient:	Ministry of Planning, Economic Development and International Cooperation
Executing agencies:	Ministry of Agriculture and Land Reclamation and Ministry of Water Resources and Irrigation
Total project cost:	EUR 153.4 million
Amount of IFAD loan (PBAS):	EUR 46.3 million equivalent to US\$50.4million
Amount of IFAD loan (BRAM):	EUR 11.9 million equivalent to US\$13.0 million
Terms of IFAD loan:	Ordinary terms: 18 years, including a grace period of 5 years, subject to interest at a rate equal to the IFAD reference interest rate including a variable spread
Cofinanciers:	Government of Egypt, beneficiaries, private sector, financial institutions
Contribution of borrower/recipient:	EUR 29.5 million
Contribution of beneficiaries:	EUR 6.8 million
Private sector:	EUR 3.1 million
Partner financial institutions:	EUR 0.5 million
Financing gap:	EUR 55.3 million
Amount of IFAD climate finance:	EUR 57.9 million

I. Context

A. National context and rationale for IFAD involvement

National context

1. The Arab Republic of Egypt is at a critical juncture. While economic reforms have boosted agricultural exports, the country still grapples with major challenges. COVID-19, inflation and the Ukraine conflict have strained foreign reserves and increased the cost of key imports such as wheat. Rapid population growth, urbanization and climate change exert further pressure on resources, especially water. Poverty, at 30 per cent in 2020, and high rates of unemployment among youth (19.7 per cent) and women (18 per cent) are pressing concerns. Government programmes such as the Nexus on Water, Food and Energy (NWFE) and Vision 2030 aim to address water, food and energy issues, support sustainable agriculture, reduce poverty and ensure food security.

Special aspects relating to IFAD's corporate mainstreaming priorities

2. In line with IFAD's mainstreaming commitments, the project has been validated as:
 - Including climate finance
 - Youth-sensitive Including adaptive capacity
3. **Youth.** Adolescents and young people represent almost one third of the Egyptian population and face huge challenges in accessing the labour market. The 2018 Egypt Labour Market Panel Survey shows that youth unemployment is higher among those with secondary or higher education (34 per cent) compared to those without schooling (13 per cent).¹ However, opportunities in agriculture exist, with younger, educated farmers more likely to engage in high-value crop cultivation and contract farming, and showing greater willingness to adopt new technologies.² Educated and skilled young women and men living in rural areas are an untapped resource in Upper Egypt. Persons with disabilities face widespread barriers in accessing services, as well as severe marginalization and stigma.
4. **Food security and nutrition.** Egypt is not on track to meet all targets for maternal, infant and young child nutrition. Obesity currently affects an estimated 44.7 per cent of adult women and 25.9 per cent of adult men. Diabetes is estimated to affect 23.4 per cent of adult women and 18.8 per cent of adult men.³ Rapid growth in the population, which is expected to reach 150 million people by 2050, is expected to further aggravate food insecurity in the country.
5. **Climate change.** Egypt has an arid desert climate, with only the northern coast having a semi-arid climate. Agriculture consumes the most water with 63.25 billion m³/year. Annual rainfall in the country is less than 1.8 billion m³/year, of which only 1 billion m³ is used for agriculture.⁴ In addition, 2.5 billion m³ of water is lost to evaporation. Agricultural communities are being adversely affected by climate change, resulting in a higher level of crop losses and lower yields, livestock mortality, reduced livestock productivity and pest infestations. Due to climate change, water demand has increased by 20 per cent over the past decade.

Rationale for IFAD involvement

6. IFAD is well placed to promote investments in technology, finance and infrastructure to tackle issues such as climate change, water scarcity, high input costs, food insecurity and rural poverty. By partnering with smallholders, government bodies and agribusinesses, IFAD supports water-saving technologies and enhances efficiency. The Climate-Resilient on-Farm Water Management in the

¹ United Nations Children's Fund (UNICEF), 2022.

² International Food Policy Research Institute (IFPRI), 2023.

³ Global Nutrition Report, 2022.

⁴ Hussein Abdel-Shafy et al., "Rainwater in Egypt: Quantity, Distribution and Harvesting," *Mediterranean Marine Science* Vol 11, No 2. Available online: <https://doi.org/10.12681/mms.75>.

Nile Valley (CROWN) project aims to improve irrigation in the so-called new lands and boost productivity and water distribution in the old lands of the Nile Valley. IFAD also assists farmers in adopting heat-tolerant crops, changing cultivation practices, and decreasing reliance on diesel and pesticides to enhance agricultural resilience and mitigate climate challenges.

B. Lessons learned

7. The CROWN project design incorporates lessons from previous initiatives like the On-Farm Irrigation Development Project in the Old Lands (OFIDO), which highlighted farmers' reluctance to adopt drip irrigation in the old lands due to costs. The success of modern irrigation lies in increased productivity, improved cultivation and water efficiency. Past projects such as the Irrigation Improvement Project, (phases 1 and 2) and the Sustainable Agriculture Investments and Livelihoods Project (SAIL) have highlighted challenges in ensuring continuous water flow to branch canals. These challenges stem in part from a need to strengthen trust and collaboration between farmers and the Ministry of Water Resources and Irrigation (MoWRI). CROWN aims to address this through demonstration plots and collaboration between MoWRI and the Ministry of Agriculture and Land Reclamation (MoALR). Building on the IFAD-financed Promotion of Rural Incomes through Market Enhancement Project and SAIL market connections, CROWN will scale up value chain activities, emphasizing poverty targeting and gender inclusion.

II. Project description

A. Objectives, geographical area of intervention and target groups

8. The project aims to sustainably enhance the resilience of poor rural households by promoting efficient water use, boosting farm productivity and profitability. The CROWN project will be implemented in two phases, starting with a seven-year core phase covering 30,000 *feddans* [a unit of agricultural land equal to 0.42 ha] in Beni Sweif and Minya, reaching 90,000 households (378,000 individuals, including 148,000 women and 69,000 youth). A five-year expansion phase will follow, aiming to cover 400,000 *feddans*, benefiting 1.1 million households and 4.6 million people over 12 years, subject to additional financing. The core phase of CROWN will focus on three socioeconomic groups: (i) poor, subsistence and semi-subsistence farmers with up to one *feddan* (50 per cent to 60 per cent of the target group); (ii) near-poor or vulnerable smallholder farmers with more than one *feddan*; and (iii) commercially oriented, mid-sized farmers (5 per cent to 10 per cent of the target group).

B. Components, outcomes and activities

9. Three core outcomes will support CROWN in achieving its ambitious goal:
 - (a) **Outcome 1:** Increased smallholder productivity and resilience through more efficient water use and climate-smart agricultural practices, including better crop choices and improved farming practices.
 - (b) **Outcome 2:** Strengthened women and youth farmers' participation in inclusive and environmentally sustainable value chains providing higher incomes for both smallholders and agribusinesses through better access to finance, market linkages, processors, business services and marketing.
 - (c) **Outcome 3:** Influencing and promoting policies and government practices that increase smallholder profitability through improved water governance, leveraging rural investment finance, especially public-private partnerships and value chain integration.

10. The project will have the following three components: (i) climate resilience through irrigation infrastructure and climate-smart agriculture (CSA); (ii) resilient and inclusive value chains; and (iii) policy support and project management.
11. **Component 1** will focus on the production side by supporting water-efficient irrigation infrastructure at the branch canal, *mesqa* [traditional irrigation channel] and farm levels, and building the capacities of farmers organizations to better manage water and land collectively and therefore increase their resilience to climate change. This component will comprise three subcomponents. Subcomponent 1.1 will focus on building and rehabilitating irrigation infrastructure. Subcomponent 1.2. will build farmers' capacities through CSA training, farmers field schools, demo plots and input access. Subcomponent 1.3 will strengthen the institutional capacities of farmers organizations, including water users' associations, marketing associations and cooperatives.
12. **Component 2** will focus on the other nodes of the value chains (traders, transporters, processors, etc.) through investments in post-harvest marketing facilities, processing, facilitating access to credit, and the creation of women and youth-led small enterprises to generate jobs. It will include subcomponent 2.1 related to smallholders' integration into resilient and inclusive value chains through the mobilization and organization of farmers, selected investments in value chains and private sector partnerships. Subcomponent 2.2 will facilitate access to finance by farmers and micro, small and medium-sized enterprises (MSMEs), while subcomponent 2.3 will foster women and youth's resilience through enterprise and livelihood development and a matching grants mechanism.
13. **Component 3** relates to project management and policy support to provide evidence on the various irrigation methodologies and the CSA practices that can best leverage improved irrigation for higher productivity, increased climate resilience and higher profitability.

C. Theory of change

14. CROWN will seek to increase the productivity, resilience and incomes of small-scale farmers, rural youth and women in the selected value chains, through the following interventions: (i) improve irrigation infrastructure; (ii) build the capacity of farmers organizations to catalyse maximized and consolidated land use; (iii) enable the adoption of climate-smart production practices and technologies through extensive demonstrations; (iv) enable better access to inputs and services; (v) improve farmers' business management skills, alignment, ownership and partnerships. The project will also promote improved access to markets; offer investment opportunities; provide technical support to partner financial institutions for improved lending practices; and support the development of a favourable policy environment. These interventions are expected to facilitate the access of smallholder farmers, women and young entrepreneurs to profitable markets, create new jobs and strengthen resilience through improved water use efficiency and climate change adaptation. The expected changes rest on the general assumption that political and macroeconomic stability will prevail in Egypt and that farmers will be willing to invest in and capable of adopting more water-efficient irrigation technologies and practices.

D. Alignment, ownership and partnerships

15. Nationally, CROWN aligns with Egypt's policies. As IFAD's flagship initiative, it stems from Egypt's unique country platform, the NWEF, to advance its National Climate Change Strategy 2050 launched ahead of COP27, its National Water Resources Plan and the Sustainable Agricultural Development Strategy. The project supports the following Sustainable Development Goals (SDGs): SDG 2, by improving food security and rural incomes, and SDG 7, through solar-powered irrigation. It aims to create high-quality jobs for youth and women, aligning with SDG 8. It supports Egypt's 2024-2030 economic strategy to boost fruit and

vegetable production. CROWN aligns with its strategic objectives by empowering smallholders, increasing farm efficiency, and promoting environmental sustainability and climate resilience.

E. Costs, benefits and financing

16. The financing gap of EUR 55.3 million may be sourced through subsequent IFAD replenishment cycles (under financing terms to be determined and subject to internal procedures and consequent Executive Board approval) or by cofinancing identified during implementation.
17. Project subcomponents 1.1 irrigation and drainage infrastructure; 1.2 climate-smart agriculture training, farmers field schools and farmers business schools, demo plots and input access; and 3.1 policy support are partially counted as climate finance. As per the multilateral development banks' methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this project is estimated at EUR 57,914,905.

Project costs

18. The total project cost, including physical and price contingencies, is estimated at EUR 153.4 million over seven years. Component 1, climate resilience through irrigation infrastructure and climate-smart agriculture, represents 72.2 per cent of the total project cost, equivalent to EUR 110.8 million. Component 2 represents 22.1 per cent of the total project cost, equivalent to EUR 33.8 million, and component 3 accounts for EUR 8.8 million, representing 5.7 per cent, with project management costs of approximately EUR 8.2 million. IFAD loans for the Twelfth Replenishment of IFAD's Resources (PBAS and BRAM) amount to EUR 58.2 million. The government contribution is estimated at EUR 29.5 million (EUR 18.4 million for taxes, EUR 5.7 million in kind and EUR 5.4 million in cash). Beneficiaries are expected to contribute EUR 6.8 million (EUR 5.1 million in kind and EUR 1.7 million in cash). The private sector and financial institutions will contribute EUR 3.1 million and EUR 0.5 million respectively. The balance of EUR 55.3 million represents the financing gap.

Table 1
Project costs by component and subcomponent and financier
(Thousands of euros)

Component/subcomponent	IFAD loan PBAS		IFAD loan BRAM		Financing gap		Beneficiaries in-kind		Financial institutions		Private sector		Beneficiaries cash		National Gov. (taxes)		National Gov. in-kind		National Gov. in cash		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Climate resilience through irrigation infrastructure and CSA																						
1.1 Irrigation and drainage infrastructure	43 359	42.4	11 946	11.7	26 742	26.1	3 173	3.1	-	-	-	-	502	0.5	14 315	14.0	2 277	2.2	11	-	102 324	66.7
1.2 Climate-smart agriculture training, farmers field schools and farmers business schools, demo plots and input access	-	-	-	-	2 650	33.7	679	8.6	-	-	-	-	-	-	1 102	14.0	-	-	3 442	43.7	7 873	5.1
1.3 Support farmers' organizations and efforts to consolidate land use	-	-	-	-	494	75.1	-	-	-	-	-	-	-	-	74	11.2	38	5.7	53	8.1	658	0.4
Subtotal	43 359	39.0	11 946	10.8	29 886	27.0	3 852	3.5	-	-	-	-	502	0.5	15 491	14.0	2 315	2.1	3 506	3.1	110 855	72.2
2. Resilient and inclusive value chains																						
2.1 Smallholder integration into resilient and inclusive value chains	-	-	-	-	6 257	43.1	-	-	247	1.7	3 097	21.3	29	0.2	2 022	13.9	1 082	7.5	1 781	12.3	14 515	9.5
2.2 Access to finance	-	-	-	-	8 663	80.7	922	8.6	262	2.4	-	-	828	7.7	40	0.4	-	-	24	0.2	10 739	7.0
2.3 Strengthening women and youth resilience through livelihood diversification, employment creation and enterprise development	-	-	-	-	7 530	87.9	318	3.7	-	-	-	-	318	3.7	396	4.6	-	-	-	-	8 563	5.6
Subtotal	-	-	-	-	22 451	66.4	1 241	3.6	509	1.5	3 097	9.2	1 175	3.5	2 457	7.3	1 082	3.2	1 805	5.3	33 817	22.0
3. Policy support and project management																						
3.1 Policy support	173	28.6	-	-	372	61.4	-	-	-	-	-	-	-	-	-	-	-	-	61	10.0	606	0.4
3.2 Project management	2 742	33.4	-	-	2 653	32.3	-	-	-	-	-	-	-	-	500	6.1	2 310	28.1	2	-	8 208	5.3
Subtotal	2 915	33.1	-	-	3 025	34.3	-	-	-	-	-	-	-	-	500	5.7	2 310	26.2	63	0.7	8 814	5.7
Total	46 274	30.1	11 946	7.8	55 362	36.1	5 092	3.3	509	0.3	3 097	2.0	1 677	1.1	18 448	12.0	5 708	3.8	5 374	3.5	153 486	100

Table 2
Project costs by expenditure category and financier
 (Thousands of euros)

Expenditure category	IFAD loan PBAS		IFAD loan BRAM		Financing gap		Beneficiaries in-kind		Financial institutions		Private sector		Beneficiaries in cash		National Gov. (taxes)		National Gov. in-kind		National Gov. in cash		Total		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
Investment costs																							
1. Consultancies ^a	1 641	8.8	-	-	10 064	54.1	469	2.5	-	-	228	1.2	-	-	2 456	13.2	173	0.9	3 556	19.1	18 588	12.1	
2. Goods and services and equipment	21 937	55.3	-	-	6 473	16.3	1 100	2.8	247	0.6	1 401	3.5	531	1.3	5 547	14.0	616	1.6	1 818	4.6	39 670	25.8	
3. Civil works	20 542	28.4	11 946	16.5	23 298	32.2	2 282	3.2	-	-	1 467	2.0	-	-	10 118	14.0	2 616	3.6	-	-	72 269	47.1	
4. Vehicles	244	43.0	-	-	244	43.0	-	-	-	-	-	-	-	-	80	14.0	-	-	-	-	568	0.4	
5. Credit lines	-	-	-	-	8 271	82.5	922	9.2	-	-	-	-	828	8.3	-	-	-	-	-	-	10 020	6.5	
6. Matching grants	-	-	-	-	5 101	88.9	318	5.5	-	-	-	-	318	5.5	1	-	-	-	-	-	5 738	3.7	
Total investment costs	44 364	30.2	11 946	8.1	53 452	36.4	5 092	3.5	247	0.2	3 097	2.1	1 677	1.1	18 201	12.4	3 405	2.3	5 374	3.7	146 854	95.7	
Recurrent costs																							
1. Salaries and allowances	1 151	23.7	-	-	1 151	23.7	-	-	262	5.4	-	-	-	-	-	-	2 303	47.3	-	-	4 868	3.2	
2. Operating costs	759	43.0	-	-	759	43.0	-	-	-	-	-	-	-	-	247	14.0	-	-	-	-	1 764	1.1	
Total recurrent costs	1 910	28.8	-	-	1 910	28.8	-	-	262	4.0	-	-	-	-	247	3.7	2 303	34.7	-	-	6 632	4.3	
Total	46 274	30.1	11 946	7.8	55 362	36.1	5 092	3.3	509	0.3	3 097	2.0	1 677	1.1	18 448	12.0	5 708	3.8	5 374	3.5	153 486	100	

^a Includes technical assistance and studies.

Table 3
Project costs by component and subcomponent and project year (PY)
 (Thousands of euros)

Component/subcomponent	PY1	PY2	PY3	PY4	PY5	PY6	PY7	Total
1. Climate resilience through irrigation infrastructure and CSA								
1.1 Irrigation and drainage infrastructure	471	18 052	38 295	40 506	4 224	383	399	102 324
1.2 Climate-smart agriculture training, farmers field schools and farmers business schools, demo plots and input access	1 817	2 338	1 375	1 451	449	348	95	7 873
1.3 Support farmers' organizations and efforts to consolidate land use	82	32	18	164	164	130	67	658
Subtotal	2 370	20 416	39 688	42 121	4 837	861	562	110 855
2. Resilient and inclusive value chains								
2.1 Smallholder integration into resilient and inclusive value chains	322	5 278	3 972	4 185	280	233	245	14 515
2.2 Access to finance	1 084	1 454	1 542	1 503	1 565	1 794	1 796	10 739
2.3 Strengthening women and youth resilience through livelihood diversification, employment creation and enterprise development	38	10	-	4 028	2 220	2 236	32	8 563
Subtotal	1 444	6 742	5 515	9 716	4 065	4 263	2 073	33 817
3. Policy support and project management								
3.1 Policy support	-	87	173	173	130	43	-	606
3.2 Project management	2 128	865	918	1 217	976	1 086	1 017	8 208
Subtotal	2 128	952	1 091	1 390	1 106	1 130	1 017	8 814
Total	5 942	28 111	46 294	53 227	10 008	6 253	3 652	153 486

Financing and cofinancing strategy and plan

19. Domestic cofinancing accounts for EUR 39.9 million (26.0 per cent) and consists of: the Government, EUR 29.5 million, of which EUR 18.4 million for taxes, EUR 5.7 million in kind and EUR 5.4 million in cash; beneficiaries, EUR 6.8 million, of which EUR 5.1 million in kind and EUR 1.7 million in cash; private sector in-kind contribution EUR 3.1 million and financial institutions' in-kind contribution in the amount of EUR 0.5 million.⁵ Overall domestic financing in the form of in-kind contributions has been estimated at EUR 14.4 million and the domestic cash contribution at EUR 25.5 million, including taxes (see above table for more details). The financing gap amounts to EUR 55.3 million.

Disbursement

20. The project management unit (PMU) of MoALR will open a designated account to receive funds from the IFAD loan under the performance-based allocation system (PBAS), while the PMU of the MoWRI will establish a pooled designated account to receive funds from both IFAD loans (PBAS and BRAM). These funds will be transferred from the designated accounts opened at the Central Bank of Egypt to the corresponding operating accounts at the Central Bank and subsequently transferred to the respective accounting unit assigned to each PMU. All payments will be processed through the Treasury Single Account e-payment system. IFAD disbursements will be made quarterly, based on interim financial reports submitted by each PMU, incorporating cash forecasts for two rolling quarters. If any supplementary financing materializes during the life of the project, the proceeds will be channelled through the existing flow of funds structure. The project will ensure that funds received and expenditures from each financier are properly segregated in the accounting system to maintain accurate financial reporting and compliance.

Summary of benefits and economic analysis

21. The project will have a poverty focus with a total outreach for the initial phase of core CROWN of around 90,000 households or 302,000 persons. Key crops include maize, wheat, potato, onion and tomato, along with various other crops and livestock farming. Thirteen household models have been developed, differentiating by land size (0.5 to 5 *feddans*) and production systems. For MSMEs, models like herb and tomato drying, cold storage and tomato processing will be considered. The economic net present value, discounted at 14.6 per cent, is EGP 1.3 billion (US\$41.3 million) with an economic internal rate of return of 25.2 per cent. Even with increased costs or delayed benefits, the project remains economically viable with positive returns.

Exit strategy and sustainability

22. The sustainability of water user associations at the *mesqa* level and branch canal water user associations (BCWUAs) will be supported through a bottom-up formation process, improved irrigation infrastructure, and the implementation of a new irrigation and water resources law. This approach will enhance collaboration between BCWUA board members and MoWRI engineers. Improvements in irrigation efficiency, crop productivity and across the value chain will rely on participatory methods and informed consent from farmers. Connections to marketing, technical and production support will help ensure sustainability by providing profitable incentives. Technical service providers will come from private consultancies, government agencies and NGOs, with CROWN facilitating direct communication between beneficiaries and these providers.

⁵ These figures also reflect the outcome of the roundtable on private sector financing in CROWN held in the New Administrative Capital in November 2024, where no credible commitments were made. Based on experience from other projects such as the Sustainable Transformation for Agricultural Resilience in Upper Egypt (STAR), CROWN has been designed to be implementable without a significant financing gap.

III. Risk management

A. Risks and mitigation measures

23. The project delivery team is confident in strong stakeholder buy-in, aligning with government strategy. However, vulnerabilities in macroeconomic policies, including monetary, fiscal and trade policies, could lead to inflation, low foreign reserves and debt distress, disrupting government funding and market dynamics. Mitigating these risks requires stronger fiscal management, diversified trade, debt sustainability and flexible institutional frameworks to enhance market resilience and support small enterprises.
24. Water scarcity, inefficient irrigation and soil salinity in Egypt threaten agricultural sustainability and food security, reducing productivity in project areas. Mitigation includes water-saving irrigation, improved resource management and investment in youth and women-led agribusinesses focused on waste recycling, alongside climate-smart practices and groundwater monitoring to manage salinity risks.
25. The inherent and residual financial management risks are assessed as high, primarily due to potential delays in establishing the PMUs, recruiting key staff and installing the accounting software. To mitigate these risks, the establishment of PMUs by ministerial decrees, recruitment of key personnel and installation of the accounting software system are set as disbursement conditions.

Table 4

Overall risk summary

<i>Risk areas</i>	<i>Inherent risk rating</i>	<i>Residual risk rating</i>
Country context	Substantial	Substantial
Sector strategies and policies	Moderate	Moderate
Environment and climate context	Moderate	Moderate
Project scope	Moderate	Moderate
Institutional capacity for implementation and sustainability	Substantial	Substantial
Financial management	High	High
Project procurement	Moderate	Moderate
Environment, social and climate impact	Low	Low
Stakeholders	Substantial	Substantial
Overall	Moderate	Moderate

B. Environment and social category

26. CROWN's environment and social risk is rated as moderate. This was revised based on the project design report activities, which target optimization of water use rather than extending irrigation networks or increasing consumption. Only the core CROWN is considered as part of the Social, Environmental and Climate Assessment Procedures (SECAP) review and rating process. While phase II of CROWN will likely involve parallel financing that complements the core initiative. The environmental and social safeguards will be determined by the concerned international financial institutions. From a social perspective, potential risks are primarily related to labour and working conditions. The inclusive and active role of women and youth in project activities will minimize the risk of undermining good labour practices.

C. Climate risk classification

27. The climate risk is moderate. As farmers increase their adaptive capacities and resilience, they will be able to use natural resources more efficiently, utilize solar energy and further strengthen value chain sustainability. Interventions are designed to reduce climate change risks and promote adaptation to future impacts, as well as improve livelihoods by promoting sustainable agricultural practices, with the aim of decreasing the vulnerability of target populations to climate hazards.

D. Debt sustainability

28. According to the International Monetary Fund and World Bank Debt Sustainability Report (August 2024), Egypt's public debt is sustainable but with high sovereign stress risks. The Government is implementing macroeconomic policies focused on resilience to domestic and external shocks, including monetary, fiscal and trade reforms. Efforts align with the Egypt 2030 vision to reduce public debt, strengthen financial markets, and improve debt liquidity and tradability. These measures aim to access international markets, reduce risks and enhance financial resilience, supporting sustainable economic growth. The focus is on addressing domestic public debt vulnerabilities while fostering economic stability.

IV. Implementation

A. Organizational framework

Project management and coordination

29. The CROWN project will be implemented by two lead project agencies: MoWRI and MoALR. Each ministry is responsible for its own portion of the project. Two PMUs will be established within MoWRI and MoALR, overseeing the project's timely implementation, financial resource management and collaboration with governorates. In phase II, credit line management will be transferred to the Micro, Small and Medium Enterprises Development Agency (MSMEDA) and the Agricultural Development Programme (ADP). For the avoidance of doubt, each PMU will prepare its own separate: (i) annual work plan and budget; ii) annual procurement plan; and (iii) monitoring and evaluation reporting. PMUs will coordinate closely to consolidate the above and submit them to IFAD. For the activities under their responsibility, each PMU will submit separate annual unaudited and audited financial statements. The PMU of MoWRI will handle tasks such as consolidating the annual workplan and budget (AWPB), annual procurement plan, monitoring and evaluation (M&E) reporting and consolidating and submitting annual unaudited and audited financial statements. Additionally, MoWRI will hire the external audit firm to perform the annual audit of the CROWN project.
30. A project steering committee (PSC) will guide the project's strategic direction, composed of senior ministerial officials and representatives from relevant sectors, including governorates and private sector stakeholders. The PSC will be chaired by the Minister of Planning, Economic Development and International Cooperation. Members of the PSC will include representatives of the governorates implementing CROWN (initially Beni Sweif and Minya), Ministry of Environment (MoE), MoALR, MoWRI and, if needed, selected private sector representatives (agribusinesses, exporters).

Financial management, procurement and governance

31. Each of the two PMUs will have a dedicated financial management team led by a finance manager. The financial management team will either be seconded from within the ministries or recruited competitively from the market. Each PMU team will be responsible for managing its respective allocations, withdrawals, reporting and audit. The project will maintain its accounts in accordance with the International Public Sector Accounting Standards (IPSAS) on a cash basis and each PMU will purchase and install accounting software system to record the project income and expenditures. The annual audit report for each PMU will be carried out by private auditor(s) based on international standards of auditing.
32. CROWN procurement will be applied in accordance with Egypt's procurement regulations to the extent they are consistent with the IFAD Project Procurement Guidelines and IFAD Procurement Handbook.
33. The implementing entities will ensure that IFAD policies and standards are clearly referenced and complied with: IFAD's Policy on Preventing Fraud and Corruption; IFAD's Policy to Preventing and Responding to Sexual Harassment, Sexual

Exploitation and Abuse; IFAD's Anti-Money Laundering and Countering the Financing of Terrorism Policy; and IFAD's SECAP.

Target group engagement and feedback and grievance redress

34. Engagement and feedback mechanisms will be operational starting at an early stage of project implementation, in consultation with the rural poor, making sure that all different target group categories are informed and consulted. A report summarizing the results of consultation activities with different stakeholders will be produced for each target area. During implementation the target group will have access to different mechanisms to provide feedback: anonymous suggestion boxes, local facilitators and mentors (focal points), mobile phones and WhatsApp groups will be used by mentors, extension workers and facilitators to receive feedback.

Grievance redress

35. Periodically and approximately every six months, the feedback received will be reviewed and analysed. The M&E and knowledge management officer, together with the gender and social inclusion specialist, will be responsible for systematizing the information received and preparing a report. The project will follow IFAD's Complaints Procedure, which ensures that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme.

B. Planning, monitoring and evaluation, learning, knowledge management and communications

36. Planning will follow the project's strategy, logical framework and broader results framework. Results-based AWPBs will be developed through a participatory approach involving key stakeholders and implementing partners, including CROWN-implementing governorates. These plans will align with MoALR and MoWRI annual workplans, detailing activities, budget and implementation schedules. CROWN will allocate funds for a robust M&E system to track progress and impact. An integrated knowledge management and communication strategy will set CROWN's knowledge management objectives, focusing on improving project performance, documenting innovations and promoting knowledge products with clear links to enhancing outcomes.

Innovation and scaling up

37. Most foundational will be the models developed around improved irrigation and agronomic practices through the use of different and innovative irrigation models and techniques. CROWN will support the transfer of innovative knowledge between farmers by organizing exchange visits to adjacent *mesqas* or command areas and innovative digital solutions to facilitate extension message delivery, access to inputs, market information, marketing and financial services.

C. Implementation plans

Implementation readiness and start-up plans

38. The IFAD country team will assist the Government in establishing two PMUs in the MoWRI and MoALR and governorate level project implementing units. Command areas will be selected for CROWN implementation in coordination with the two line ministries. In the second phase, the credit wholesalers (MSMEDA and ADP) will be oriented to the partnership modalities and process for selecting PFIs.

Supervision, midterm review and completion plans

39. CROWN supervision will be carried out directly by IFAD. One supervision mission and one implementation support mission will be undertaken every year. The two lead project agencies, IFAD and implementing partners will jointly carry out the midterm review at the end of year four. IFAD will be responsible for organizing the preparation of a project completion review.

V. Legal instruments and authority

40. A financing agreement between The Arab Republic of Egypt and IFAD will constitute the legal instrument for extending the proposed financing to the borrower. A copy of the negotiated financing agreement is attached as appendix I.
41. The Arab Republic of Egypt is empowered under its laws to receive financing from IFAD.
42. I am satisfied that the proposed financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

43. I recommend that the Executive Board approve the proposed financing in terms of the following resolution:

RESOLVED: that the Fund shall provide a loan on ordinary terms to the Arab Republic of Egypt in an amount of forty-six million two hundred and seventy-four thousand euros (EUR 46,274,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide a loan on Ordinary terms to the Arab Republic of Egypt in an amount of eleven million nine hundred and forty-six thousand euros (EUR 11,946,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Alvaro Lario
President

Negotiated financing agreement

(Negotiations concluded on 07 November 2024)

Loan No:

Loan No:

Project name: Climate-Resilient On-Farm Water Management in the Nile Valley ("CROWN") or (the "Project")

The Arab Republic of Egypt (the "Borrower")

and

The International Fund for Agricultural Development (the "Fund" or "IFAD")

(each a "Party" and both of them collectively the "Parties")

WHEREAS:

A. On November 8, 2022, the Borrower and the Fund entered into a partnership agreement on Egypt's country platform for the Nexus of Water, Food, and Energy (the "NWFE - نُؤْفِي") in order to establish a mutually beneficial framework to facilitate collaboration in common areas of interest particularly for the implementation NWFE food pillar;

B. CROWN is one of the first steps in the operationalisation of the food systems ambitions articulated in the NWFE;

C. In the context of the Project and for the support of the Project implementation, IFAD and the Borrower are envisaging to mobilise additional resources in the form of grants from IFAD resources and respective international donors and financiers in areas related to but not limited to technical assistance, capacity building and policy support activities;

D. The Borrower requested financing from the Fund for the purpose of financing the Project described in Schedule 1 to this Agreement; and

E. The Borrower has undertaken to provide thirty-two million one hundred thirty thousand United States Dollars (29.5 million EUR) equivalent for the Project.

WHEREAS, the Fund has agreed to provide financing for the Project;

NOW THEREFORE, the Parties hereby agree as follows:

Section A

1. The following documents collectively form this present financing agreement (the "Agreement"): this document, the Project Description and Implementation Arrangements (Schedule 1), the Allocation Tables (Schedule 2) and the Special Covenants (Schedule 3).

2. The Fund's General Conditions for Agricultural Development Financing dated 29 April 2009, amended as of December 2022, (the "General Conditions") are annexed to this Agreement, and all provisions thereof shall apply to this Agreement. For the purposes of

this Agreement the terms defined in the General Conditions shall have the meanings set forth therein, unless the Parties shall otherwise agree in this Agreement.

3. The Fund shall provide two loans (individually defined as "Loan A" and "Loan B" and collectively defined as the "Financing") to the Borrower, which the Borrower shall use to implement the Project in accordance with the terms and conditions of this Agreement.

Section B

1. The total amount of the Financing shall be fifty eight million two hundred and twenty thousand Euro (EUR 58 220 000) out of which: i) forty-six million two hundred seventy-four thousand Euro (EUR 46 274 000) shall be taken from Performance Based allocations (PBAs); and ii) eleven million nine hundred forty-six thousand Euro (EUR 11 946 000) shall be taken from the borrowed resources mechanism (BRAM).

2. The Financing shall be granted on ordinary terms and shall be subject to interest on the principal amount outstanding of each Loan rate equal to the IFAD Reference Interest Rate including a variable spread, payable semi-annually in the Loan Service Payment Currency, and have a maturity period of 18 years, including a grace period of 5 years, starting from the date as of which the Fund has determined that all general conditions precedent to withdrawal have been fulfilled.

3. The Loan Service Payment Currency shall be in EUR.

4. The first day of the applicable Fiscal Year shall be July 1st.

5. Payments of principal and interest shall be payable on each 15 April and 15 October.

6. The Borrower will open and maintain two (2) Designated Accounts at the Central Bank of Egypt to receive funds from the Financing. There shall be one (1) pool Designated Account for MoWRI and one (1) Designated Account for MoALR. The Borrower shall inform the Fund of the officials authorized to operate the Designated Accounts.

7. There shall also be two (2) Project Accounts in Egyptian Pound (EGP) open in the Central Bank of Egypt to receive funds transferred from the respective Loans Designated Accounts.

8. The Borrower shall provide government contribution for the Project both (cash and in-kind) in the amount of twenty-nine million five hundred thirty thousand EUR (29.53 million EUR) equivalent to cover for taxes, customs duties, and project activities.

Section C

1. There shall be two (2) Lead Project Agencies: i) the Ministry of Water Resources and Irrigation (MoWRI); and ii) the Ministry of Agriculture and Land Reclamation (MoALR). Each Lead Project Agency will be solely responsible for the implementation of their part of the Project as further explained in Schedule 1 to this Agreement and specified in the Project Implementation Manual (the "PIM").

2. A Mid-Term Review will be conducted as specified in Section 8.03 (b) and (c) of the General Conditions; however, the Parties may agree on a different date for the Mid-Term Review of the implementation of the Project.

3. The Project Completion Date shall be the seventh (7th) anniversary of the date of entry into force of this Agreement and the Financing Closing Date shall be 6 months later, or such other date as agreed between the Parties.

4. Procurement of goods, works and services financed by the Financing shall be carried out in accordance with the provisions of the Borrower’s procurement regulations, to the extent such are consistent with the IFAD Procurement Guidelines.

Section D

1. The Fund will administer the Financing and supervise the Project.

Section E

1. The following are designated as additional grounds for suspension of this Agreement:

The PIM and/or any provision thereof, has been waived, suspended, terminated, amended or modified without the prior agreement of the Fund and the Fund, after consultation with the Borrower, has determined that it has had, or is likely to have, a material adverse effect on the Project.

2. The following are designated as conditions precedent to withdrawal:

- a. The IFAD no objection to the Project Implementation Manual (PIM) shall have been obtained;
- b. The establishment of each of the two (2) Project Management Units (the “PMUs”) within each of the two (2) Lead project Agency shall be made via the issuance of the relevant Ministerial Decrees, in line with the applicable national law and legislation;
- c. The appointment of competent staff in each of the two (2) PMUs of the: i) Project Coordinator; ii) Finance Expert/ Manager; iii) Procurement Expert; iv) M&E expert; and v) Environment and Climate Assessment Specialist (together referred to as the “Key Project Personnel”); and
- d. The purchase and installation of the accounting software system(s) at both PMUs.

4. This Agreement is subject to ratification by the Borrower.

5. The following are the designated representatives and addresses to be used for any communication related to this Agreement:

For the [Borrower]:

[click and type title of the representative]
[click and type the name and address of the ministry]

For the Fund:

[click and type Title]
International Fund for Agricultural Development
Via Paolo di Dono 44
00142 Rome, Italy

[Copy to:]

[If applicable, The Parties accept the validity of any qualified electronic signature used for the signature of this Agreement and recognise the latter as equivalent to a hand-written signature.]

This Agreement, [dated _____] has been prepared in the English language in two (2) original copies, one (1) for the Fund and one (1) for the [Borrower].

THE ARAB REPUBLIC OF EGYPT

"[Authorised Representative Name]"
"[Authorised Representative title]"

Date: _____

INTERNATIONAL FUND FOR
AGRICULTURAL DEVELOPMENT

"[Authorised Representative Name]"
"[Authorised Representative title]"

Date: _____

Schedule 1

Project Description and Implementation Arrangements

I. Project Description

1. *Target Population.* The Project has a total outreach for its initial phase of 90,000 households, for approximately 378,000 people (of which 148,000 women and 69,000 youth) shall benefit. There are three main socio-economic groups: Group 1: Poor, subsistence and semi-subsistence farmers with no more than one feddan (approximately 50-60% of the target group, average 0.5 feddan and not exceeding 1 feddan). Group 2: near poor or vulnerable smallholder farmers owning more than 1 feddan – typically 2 to 3 feddan and not exceeding 5 feddan (approximately 30% of the target group, average 2.4 feddan). Group 3: Commercially-oriented and middle-sized farmers (approximately 5 to 10% of the target group); this group includes farmers owning up to 10 feddan typically found in new lands (average 5 feddans).
2. *Project area.* The Project will cover initially the Minya and Beni Sweif governorates in Middle Egypt. Core CROWN will be in two to three command areas in Beni Sweif and Minya governorates covering the area of up to 30,000 feddans with more focus on old lands (25,000 feddans), with new lands mainly being pilots (5,000 feddans). Gradually CROWN will expand to additional governorates in Middle Egypt and Upper Egypt.
3. *Goal.* The goal of the Project is to sustainably increase poor rural households' resilience through more efficient water use, driving higher farm productivity and profitability.
4. *Objectives.* The objective of the Project is to increase the income and improve the livelihood of smallholder farmers involved in competitive and sustainable value chains leading to increased food security.
5. *Components.* The Project shall consist of the following Components:
6. Component 1 aims to bolster climate resilience through irrigation infrastructure and Climate Smart Agriculture (CSA), uniting MALR and MWRI efforts. It comprises three subcomponents: 1.1 focuses on upgrading irrigation systems; 1.2 on CSA training and input access; and 1.3 on supporting farmers' organizations and land use consolidation. Substantial activities include awareness-raising, demand analysis, training sessions, and capacity building for stakeholders. These initiatives seek to enhance collaboration, resource utilization, and decision-making among relevant parties, promoting sustainable agricultural practices in the face of climate challenges.
7. Component 2 - "Resilient and inclusive value chains," aims to fortify value chains, prioritizing women and youth. Subcomponents include: 2.1: integrating smallholders into value chains; 2.2: ensuring access to finance; and 2.3: fostering women and youth's resilience through enterprise. Activities range from market linkages to financial partnerships and addressing social norms. Initiatives seek to enhance participation, access to resources, and economic opportunities for marginalized groups, thereby promoting inclusive and sustainable development. Component 2 shall be financed by the government's contribution as further defined in Section B, paragraph 8 of this present Agreement.
8. Component 3 focuses on enhancing irrigation methods and climate-smart agriculture for productivity and profitability. It emphasizes evidence-based approaches and stakeholder engagement. Key activities include documenting effective irrigation methods, modelling climate-smart practices, and partnering with the private sector for investment. It also involves coordinating water management and supporting the implementation of water laws. Component 3 aims to optimize water use, improve agricultural practices, and strengthen value chains, ensuring sustainable water management and regulatory compliance through stakeholder collaboration.

II. Implementation Arrangements

1. There shall be two (2) Lead Project Agencies: i) the Ministry of Water Resources and Irrigation (MoWRI); and ii) the Ministry of Agriculture and Land Reclamation (MoALR). Each Lead Project Agency will be solely responsible for the implementation of their part of the Project as further specified in the Project Implementation Manual (the "PIM").

For the avoidance of doubt, each PMU shall prepare its own separate: i) Annual Work Plan and Budget (AWPB); ii) annual procurement plan; and iii) M&E reporting.

PMUs shall coordinate closely to consolidate the above and submit them to IFAD.

For the activities under their responsibility, each PMU shall submit separate annual unaudited and audited financial statements.

2. *Project Management Units (PMUs)*. Two Project Management Units (PMUs) will be established within CROWN, one at MoWRI and one at MoALR, for project management. Each PMU will oversee timely implementation, and financial resource management of their part of the Project and will ensure appropriate collaboration with the respective governorates. Key tasks include securing financing, reporting, procurement, and managing assets in compliance with this agreement

3. *Project Steering Committee (PSC)*. A dedicated CROWN PSC will be established. It will be composed of high-ranking ministerial staff responsible for translating NFWF guidance into policy decisions at the national level. The Ministry of Planning, Economic Development & International Cooperation will designate the Chair of the PSC. Members of the PSC will include representatives of the governorates implementing CROWN (initially Beni Sweif and Minya), MoE, MoALR, MoWRI, if needed, selected private sector representatives (agribusinesses, exporters). The PSC shall follow up with the PMUs for the consolidation required under paragraph 1 above.

4. *Monitoring and Evaluation*. A robust M&E system will ensure effective project monitoring and impact assessment. It will include a Results Management Framework, monitoring and evaluation tools, Management Information System (MIS), and dedicated M&E staff in the two PMUs.

5. *Knowledge Management*. An integrated Knowledge Management (KM) and Communication Strategy will be developed by each of the PMUs during the start-up phase of the Project. This strategy aims to support the achievement of CROWN's goals by establishing systems, processes, and responsibilities to generate, capture, analyse, document, package, and disseminate knowledge and lessons learned both internally and externally. It will outline CROWN KM goals, strategic objectives, and products, focusing on improving project performance, scaling up successes, sharing lessons learned, influencing policy, and promoting innovations.

6. *Project Implementation Manual*. The PIM will be finalized in the start-up phase of the Project and is to be used by the PMUs for the implementation of the CROWN. The PIM shall be approved by the Borrower and agreed with IFAD. In the course of Project implementation, amendments and additions may be made in the PIM based on the needs in efficient Project implementation. Proposals on amendments to the PIM may be proposed by the PMUs. All amendments made in PIM shall be agreed with IFAD.

Schedule 2

Allocation Table

1. Allocation of the Financing Proceeds.

The Table below sets forth the Component of Eligible Expenditures to be financed by the Financing and the allocation of the amounts to each Component. All amounts are net of taxes, government, and beneficiaries contributions.

Component	PBAS Loan Amount Allocated (Expressed in EUR)	BRAM Loan Amount Allocated (Expressed in EUR)
I. Ministry of Water Resources and Irrigation		
I. Climate Resilience through irrigation infrastructure and CSA	22 535 000	10 751 000
II. Policy support and project management	1 585 000	
Unallocated	2 684 000	1 195 000
Total – Ministry of Water Resources and Irrigation	26 804 000	11 946 000
II. Ministry of Agriculture and Land Reclamation		
I. Climate Resilience through irrigation infrastructure and CSA	16 485 000	
II. Policy support and project management	1 035 000	
Unallocated	1 950 000	
Total - Ministry of Agriculture and Land Reclamation	19 470 000	
TOTAL	46 274 000	11 946 000

In the context of the Project and for the support of the Project implementation, IFAD and the Borrower are envisaging to mobilize additional resources from IFAD's resources and respective international donors and financiers in areas related to, but not limited to, supporting the Lead Project Agencies in implementing consultancies under Component I, Component II and Component III.

2. Start-up Costs

Withdrawals in respect of eligible expenditures for start-up costs incurred before the satisfaction of the condition's precedent to withdrawal (as specified in Section E paragraph 3 of this present Agreement) shall be permitted up to an overall amount of EUR 100 000 (EUR 50 000 for each PMU), under Component III. These funds are intended to exclusively provide for the purchase and installation of an appropriate accounting software and MIS system. The start costs are subject to IFAD's approval.

Schedule 3

Special Covenants

I. General Provisions

In accordance with Section 12.01(a) (xxiii) of the General Conditions, the Fund may suspend, in whole or in part, the right of the Borrower to request withdrawals from the Financing Account(s), if the Borrower has defaulted in the performance of any covenant set forth below, and the Fund has determined that such default has had, or is likely to have, a material adverse effect on the Project:

1. *Accounting Software.* Within 6 months of entry into force of the Agreement, each PMU will purchase and install a customize accounting software as it is the practice in IFAD on-going supported projects, to satisfy International Accounting Standards and IFAD's requirements.
2. *Planning, Monitoring and Evaluation.* Each of the PMUs shall ensure that (i) a Planning, Monitoring and Evaluation (PM&E) system shall be established within twelve (12) months from the date of entry into force of this Agreement.
3. *Gender.* Each of the PMUs shall ensure that gender mainstreaming as promoted under the Project will be pursued to ensure that women voices with key focus on labour conditions, and economic opportunities are promoted throughout the Project interventions. The Project will also take measures to ensure the protection of women's safety and security.
4. *Anticorruption Measures.* Each of the PMUs shall comply with IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations.
5. *Sexual Harassment, Sexual Exploitation and Abuse.* Each of the PMUs and the Project Parties shall ensure that the Project is carried out in accordance with the provisions of the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, as may be amended from time to time.
6. *IFAD Client Portal (ICP) Contract Monitoring Tool.* Each of the PMUs shall ensure that a request is sent to IFAD to access the project procurement Contract Monitoring Tool in the IFAD Client Portal (ICP). Each of the PMUs shall ensure that all contracts, memoranda of understanding, purchase orders and related payments are registered in the Project Procurement Contract Monitoring Tool in the IFAD Client Portal (ICP) in relation to the procurement of goods, works, services, consultancy, non-consulting services, community contracts, grants and financing contracts. Each of the PMUs shall ensure that the contract data is updated on a quarterly basis during the implementation of the Project.

II. IFAD's Social, Environmental and Climate Assessment Procedures ("SECAP") Provisions

I. General

The Project presents moderate social, environmental and climate risks.

Each of the PMUs shall carry out the implementation of the Project in accordance with the measures and requirements set forth in the Environmental and Social Impact Assessments (ESIAs) if required and the Environmental, Social and Climate Management Plans (ESCMPs). An integrated pest management (IPM) and solid waste management (SWM) plan have been prepared and annexed to the ESCMP. ESCMPs, IPMs and SWM shall collectively be referred to as the "Management Plan(s)". Both IPM and SWM plans will be

detailed once the command area and specific crops have been selected. It will require a more local level analysis of pesticide and fertilizer use, access to alternative organic products, and adopting a participatory approach involving consultation with local communities.

II. Project Specific

1. Each of the PMUs shall not amend, vary or waive any provision of the Management Plan(s), unless: (i) agreed in writing by the Fund and (ii) Borrower has complied with the requirements applicable to the original adoption of the Management Plan(s).
2. Each of the Lead Project Agencies shall not, shall cause all their contractors, sub-contractors, and suppliers not to commence implementation of any works, unless all Project affected persons have been compensated and/or resettled in accordance with the specific RAP/Abbreviated RAP, FPIC and/ or the agreed works and compensation schedule.
3. Each of the PMUs shall disclose the draft and final ESIA reports and all other relevant Management Plan(s) with Project stakeholders and interested parties in an accessible place in the Project -affected area, in a form and language understandable to Project -affected persons and other stakeholders. The disclosure will take into account any specific information needs of the community (e.g. culture, disability, literacy, mobility or gender).
4. Each of the PMUs shall ensure that all bidding documents and contracts for goods, works and services contain provisions that require contractors, sub-contractors and suppliers to comply at all times in carrying out the Project with the standards, measures and requirements set forth in the SECAP 2021 Edition and the Management Plan(s), if any.
5. This section applies to any event which occurs in relation to serious environmental, social, health & safety (ESHS) incidents (as this term is defined below); labor issues or to adjacent populations during Project implementation that, with respect to the relevant IFAD Project:
 - (i) has direct or potential material adverse effect;
 - (ii) has substantially attracted material adverse attention of outside parties or create material adverse national press/media reports; or
 - (iii) gives rise to material potential liabilities.

In the occurrence of such event, each of the PMUs shall:

- Notify IFAD promptly;
- Provide information on such risks, impacts and accidents;
- Consult with Project -affected parties on how to mitigate the risks and impacts;
- Carry out, as appropriate, additional assessments and stakeholders' engagements in accordance with the SECAP requirements; and
- Adjust, as appropriate, the Project -level grievance mechanism according to the SECAP requirements; and
- Propose changes, including corrective measures to the Management Plan(s) (if any), in accordance with the findings of such assessment and consultations, for approval by IFAD.

Serious ESHS incident means serious incident, accident, complaint with respect to environmental, social (including labor and community), health and safety (ESHS) issues that occur in the context of the loan or within the Project activities.

Serious ESHS incidents can comprise incidents of (i) environmental; (ii) occupational; or (iii) public health and safety; or (iv) social nature as well as material complaints and grievances addressed to the Borrower (e.g. any explosion, spill or workplace accident which results in death, serious or multiple injuries or material environmental contamination, accidents of members of the public/local communities, resulting in death or serious or multiple injuries, sexual harassment and violence involving Project workforce or in relation to severe threats to public health and safety, inadequate resettlement compensation, disturbances of natural ecosystems, discriminatory practices in stakeholder consultation and engagement (including the right of indigenous peoples to free, prior and informed consent), any allegations that require intervention by the police/other law enforcement authorities such as loss of life, sexual violence or child abuse, which (i) have, or are likely to have a material adverse effect; or (ii) have attracted or are likely to arouse substantial adverse attention of outside parties or (iii) to create substantial adverse media/press reports; or (iv) give, or are likely to give rise to material potential liabilities).

6. Each of the PMUs shall ensure and cause its contractors, sub-contractors and suppliers to ensure that the relevant processes set out in the SECAP 2021 Edition as well as in the Management Plan(s) (if any) are respected.

7. Each of the Lead Project Agencies shall provide the Fund with:

- Reports on the status of compliance with the standards, measures and requirements set forth in the SECAP 2021 Edition, ESCMPs and the management plan (if any) on a semi-annual basis.
- Reports of any social, environmental, health and safety incidents and/accidents occurring during the design stage, the implementation of the Project and propose remedial measures. Each Lead Project Agencies will disclose relevant information from such reports to affected persons promptly upon submission of the said reports; and
- Reports of any breach of compliance with the standards, measures and requirements set forth in the SECAP 2021 Edition and the Management Plan(s) (if any) promptly after becoming aware of such a breach.

8. In the event of a contradiction/conflict between the Management Plan(s), if any, and the present Agreement, the present Agreement shall prevail.

Logical framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach Outreach in terms of beneficiaries, corresponding households reached and total number of HH members (based on an average size of 4.2 members per HH)	1 Persons receiving services promoted or supported by the project				M&E system: Beneficiary database	semester/annual	M&E officer	CI1: Out of the rural (formal) employee in agriculture, 92% are rural men and 8% are rural women across the three selected clusters. 30% of youth to be targeted CI 1.a: Assuming that canal rehabilitation under component 1 will benefit to all people in the household ; CI 1.b: Assuming an average household size of 5 persons. Youth considered are between 18-29 years
	Males - Males	0	60000	154000				
	Females - Females	0	50000	148000				
	Young - Young people	0	20000	69000				
	Total number of persons receiving services - Number of people	0	110000	302000				
	1.a Corresponding number of households reached				M&E system	Annual/Semi Annual	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists;	
	Households - Households	0	30000	90000				
1.b Estimated corresponding total number of households members				M&E system/Beneficiary database	Continuous	M&E officer		
Household members - Number of people	0	126000	378000					
Project Goal To sustainably increase poor rural households' resilience through more efficient water use that will drive higher farm productivity and profitability	Households reporting an increase in resilience and recovery to shocks				COI survey	baseline, midterm, completion	Service provider	Political and macro-economic stability.
	Households - Percentage (%)	0	10	25				
	Households - Number	0	3000	22500				
Development Objective To increase the income and improve the livelihood of smallholder farmers	Households experiencing economic mobility (proxied by asset indicators i.e. Household, durable, productive, and livestock, natural, human)				COI survey	Baseline, Midterm, Completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs	Political stability, Macro-economic conditions remain stable.
	Households - Number		3000	22500				

involved in competitive and sustainable value chains leading to increased food security	Households - Percentage (%)	0	10	25			M&E specialists; Baseline, Mid-term and Impact assessment contractors	
	Households reporting at least 20% increase in incomes deriving from agriculture-based activities				COI survey	Baseline, mid term, completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	
	HH - Percentage (%)	0	20	40				
	Households - Number	0	6000	36000				
Outcome Outcome 1 Increased smallholder productivity and resilience through more efficient water management and Climate Smart Agriculture	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI HH survey	baseline, midterm, completion	Service provider	Farmers are willing to switch to and adopt more water efficient irrigation technologies and practices
	Total number of household members - Number of people	0	37800	264600				
	Households - Percentage (%)	0	30	70				
	Households - Households	0	9000	63000				
	1.2.4 Households reporting an increase in production				COI HH survey			
	Total number of household members - Number of people	0	50400	302400				
	Households - Percentage (%)	0	40	80				
	Households - Households	0	12000	72000				
	1.2.3 Households reporting reduced water shortage vis-à-vis production needs				COI survey	Baseline, Mid term, Completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact	
	Households - Percentage (%)	0	40	80				
	Households - Households	0	10560	72000				

	Total number of household members - Number of people	0	44352	110880			assessment contractors	
	Supported rural farmers' organizations reporting new or improved services provided by their organization and/or extension workers				COI POs survey	Baseline, Mid term, Completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	
	Farmers Organizations - Number	0	100	258				
	FO Members total Number - Number	0	1050	2640				
	Women FO members - Number	0	210	530				
	Male FO Members - Number	0	840	2110				
	Young FO Members - Number	0	310	790				
	SF.2.1 Households satisfied with project-supported services							
	Household members - Number of people		37800	283500				
	Households (%) - Percentage (%)		30	75				
	Households (number) - Households		9000	67500				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers							
	Household members - Number of people		37800	283500				
	Households (%) - Percentage (%)		30	75				
	Households (number) - Households		9000	67500				
Output	1.1.2 Farmland under water-related infrastructure constructed/rehabilitated				M&E system	semester/annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,	
Output 1.1 Climate resilient irrigation infrastructure constructed/rehabilitated	Hectares of land - Area (ha)	0	5000	12600				

	3.1.4 Land brought under climate-resilient practices			M&E system	Annual/Semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists, MoALR and MoWRI	
	Hectares of land - Area (ha)	0	5000	12600			
Output Output 1.2 Smallholder farmers capacitated and accessing technology and inputs	1.1.3 Rural producers accessing production inputs and/or technological packages			M&E system	semester/annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,	Strong coordination mechanisms are established to reduce any risk of unclear implementation responsibilities across two ministries (MoALR and MoWRI) and allow for a smooth implementation
	Males - Males	0	7500	18750			
	Females - Females	0	2500	6250			
	Young - Young people	0	3000	7500			
	Total rural producers - Number of people	0	10000	25000			
	1.1.4 Persons trained in production practices and/or technologies			M&E system	semester/ annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,	
	Total number of persons trained by the project - Number of people	0	7200	18000			
	Men trained in crop - Males	0	4500	11250			
	Women trained in crop - Females	0	1500	3750			
	Young people trained in crop - Young people	0	1800	4500			
	Men trained in livestock - Males	0	360	900			
	Women trained in livestock - Females	0	840	2100			
	Young people trained in livestock - Young people	0	360	900			
	Total persons trained in crop - Number of people	0	6000	15000			

	Total persons trained in livestock - Number of people	0	1200	3000				
	2.1.2 Persons trained in income-generating activities or business management				Service provider records, M&E system	Annual/Semi-annual	Service provider; Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,	
	Males - Males	0	5600	14000				
	Females - Females	0	2400	6000				
	Young - Young people	0	3200	8000				
	Persons trained in IGAs or BM (total) - Number of people	0	8000	20000				
	Rural farmers' organizations supported							
	Rural FOs supported - Number							
	Total size of FOs - Number of people							
Output Output 1.3 Supporting farmer organizations and strengthening government extension services	Community members and extension workers capacitated				M&E system	Annual/Semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,	The project is able to develop a strong consensus among farmers in contiguous command areas thanks to an effective participatory planning, and farmers' involvement in designing irrigation solutions to address concerns of limited ownership and delayed benefits at the farm level.
	Community members and Extension workers - Number	0	500	1200				
	Community members and Extension workers - Males	0	140	350				
	Community members and Extension workers - Females	0	360	850				
	Community members and Extension workers - Young people	0	240	610				
	Rural farmers' organizations supported				M&E system	Annual/semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs	
	Rural FOs supported - Number		130	323				

	Total size of FOs - Number of people		1300	3300			M&E specialists, MoALR and MoWRI Governorate Implementation Units M&E officers, Component leads.	
	Males - Number		970	2640				
	Females - Number		330	660				
	Young - Number		390	990				
Outcome Outcome 2 Strengthened farmers', women and youth's participation in inclusive and environmentally sustainable value chains and better access to finance and markets	2.2.1 Persons with new jobs/employment opportunities				COI Outcome Survey	baseline, midterm, completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	Agri-businesses have an interest in developing collaborative arrangements with farmers to source increased volumes of improved quality of produce. Farmers (including women and youth) have strong incentives to intensify market-oriented production, invest in and adopt climate resilient technologies and practices and engage in collective organization due to secure and profitable markets along with business development and financial support.
	Males - Males	0	520	1300				
	Females - Females	0	1560	3900				
	Young - Young people	0	1040	2600				
	Total number of persons with new jobs/employment opportunities - Number of people	0	2080	5200				
	2.2.6 Households reporting improved physical access to markets, processing and storage facilities⁶				COI survey	baseline, midterm, completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	Agri-businesses have an interest in developing collaborative arrangements with farmers to source increased volumes of improved quality of produce. Farmers (including women and youth) have strong incentives to intensify market-oriented production, invest in and adopt climate resilient technologies and practices and engage in collective organization due to secure and profitable markets along with business development and financial support.
	Households reporting improved physical access to markets - Percentage (%)	0	25	50				
	Size of households - Number of people	0	8715	34860				
	Households reporting improved physical access to processing facilities - Percentage (%)	0	25	50				
	Size of households - Number of people		8715	34860				

⁶ Market/storage facilities - Phase 1 – 140,000 (70,000 market facilities, 70,000 Storage facilities), Phase 2 – 1,800,000

	Households reporting improved physical access to storage facilities - Percentage (%)	0	25	50				
	Size of households - Number of people		8715	34860				
	Households reporting improved physical access to markets - Households		2075	8300				
	Households reporting improved physical access to processing facilities - Households		2075	8300				
	Households reporting improved physical access to storage facilities - Households		2075	8300				
	1.2.6 Partner financial service providers with portfolio-at-risk ≥30 days below 5%				Partner Financial Institutions system	Annual/Semi-annual	Partner Financial Institutions; Coordination unit M&E Manager	
	Percentage - Percentage (%)	0	100	100				
	Farmers engaged in formal partnerships/agreements or contracts with public or private entities				COI survey	Baseline, Midterm, Completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	
	Farmers - Number of people	0	6880	17200				
	Women - Number	0	1780	4450				
	Men - Number	0	5100	12750				
	Young - Number	0	2744	6860				
Output Output 2.1 Market and	2.1.6 Market, processing or storage facilities constructed or rehabilitated				M&E system	semester/annual	Coordination unit M&E Manager,	

post-harvest infrastructure established	Total number of facilities - Facilities	0	11	28			MoALR and MoWRI PMUs M&E specialists,				
	Market facilities constructed/rehabilitated - Facilities	0	10	25							
	Storage facilities constructed/rehabilitated - Facilities	0	1	3							
	Formal or informal Marketing groups established/strengthened								M&E system	Annual/Semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists,
	MOs supported - Number	0	320	800							
	Total size of MOs (number of people) - Number	0	4800	12000							
	Female - Number	0	1200	3000							
	Male - Number	0	3600	9000							
	Young - Number	0	1920	4800							
	Contract farming arrangements and Agri-PPPs established/strengthened								M&E system	Annual/Semi-annual	
Contract farming arrangements - Number	0	160	400								
Agri-PPPs - Number	0	1	1								
Output Output 2.2 Loans for innovative investments disbursed	1.1.5 Persons in rural areas accessing financial services				M&E system	Annual/Semi-annua	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists, Component Lead, PFIs				
	Men in rural areas accessing financial services - credit - Males	0	2800	7000							
	Women in rural areas accessing financial services - credit - Females	0	1200	3000							

	Young people in rural areas accessing financial services - credit - Young people	0	1200	3000				
	Total persons accessing financial services - credit - Number of people	0	4000	10000				
	1.1.6 Financial service providers supported in delivering outreach strategies, financial products and services to rural areas				M&E system	Annual/Semi-annua	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists, Component Lead, PFIs	
	Service providers - Service Providers	0	5	10				
Output Output 2.3 Supporting youth and women	Women and youth accessing business development services and matching grants				M&E system	Annual/Semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists, Component Leads	
	Total Number of persons - Number		4000	10000				
	Female - Number of people		2000	5000				
	Female Youth - Number		1000	2500				
	Male Youth - Number		1000	2500				
	Rural enterprises established or supported				M&E system	Annual/Semi-annual	Coordination unit M&E Manager, MoALR and MoWRI PMUs M&E specialists, Component Leads	
	Rural Enterprises - Number		80	200				
Outcome Outcome 3 Influencing and promoting policies and government practices that increase smallholder farmers resilience and profitability	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				Qualitative assessment	Baseline, Midterm, Completion	Coordination unit M&E Manager; MoALR and MoWRI PMUs M&E specialists; Baseline, Mid-term and Impact assessment contractors	
		Number - Number	0	0				
	Policy 1 Policy-relevant knowledge products completed					semi-Annual	M&E Unit	

<p>Output Output 3.1 Evidencing of policies, relevant knowledge products and practices of efficient irrigation, climate smart agriculture practices and public private partnerships</p>	<p>Number - Knowledge Products</p>		<p>2</p>	<p>5</p>	<p>M&E system, Project records</p>			
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Integrated project risk matrix

Risk Categories and Subcategories	Inherent	Residual
Country Context	Substantial	Substantial
Political Commitment	Substantial	Substantial
<p>Risk(s): The December 2023 presidential elections in Egypt concluded with President Abdel Fattah al-Sisi winning a third term in office with 90% of the vote. This victory follows a constitutional amendment made in 2019 that extended the presidential term from four to six years and allowed President Sisi to stand for a third term. While the victory may instil some political stability, a government reshuffle is expected in a context of already high institutional fragmentation and high ministerial and staff turnover which could negatively affect the communication between IFAD and the Government, as well as implementation capacity.</p>		
<p>Mitigations: The re-election displays a strong commitment to provide support for national programs that promote climate action and to cooperate with international partners under the NWFE. IFAD as the lead of the food pillar continues to coordinate with other IFIs that have pledged for CROWN financing. During the design, all potential co-financing partners were consulted through a joint meeting to discuss modalities for aligning their respective activities under CROWN. Although specific financial commitments are yet to be defined and materialized, this reduces the interdependence of funding sources for CROWN project implementation and offers a modular approach for scaling up project activities both in terms of geographical expansion and impact. Additionally, MoPEDIC views CROWN as a platform for achieving sustainable development goals and reducing carbon emissions as part of the National Climate Change Strategy 2050, which illustrates the political commitment of the government.</p> <p>As concerns high staff turn-over IFAD will work with the government to protect PMU and PIU staff from frequent transfers and institute clear procedures and working modalities that will increase institutional memory and thus reduce the impact of staff turnover.</p>		
Governance	Substantial	Substantial
<p>Risk(s): Egypt's government maintains a highly centralized power structure. This concentration of power creates the following risks: Lack of Accountability: Decisions are often made without sufficient transparency or input from civil society. This risks major decisions being poorly conceived or lacking broad support. Policy Volatility: Changes in leadership or priorities can lead to abrupt policy shifts, disrupting economic activity and impacting foreign investment. Limited channels for public expression: This can lead to simmering resentment and potential social unrest. Elevated levels of corruption: This is especially so in large scale infrastructure projects.</p>		
<p>Mitigations: To mitigate against the risks of the application of top-down approaches in implementation of irrigation infrastructure investments and against the persisting high perception of corruption (Transparency International) CROWN will apply participatory planning approaches to irrigation development and address concerns of limited ownership and delayed delivery of benefits at farm level. In addition, the CROWN project will establish a programme steering committee (PSC) under the NWFE food pillar and composed of representatives from the governorates (initially Beni Sweif and Minya). This will reduce the chances of governance failures, which is accompanied by accessible recourse and dispute resolution mechanisms.</p>		
Macroeconomic	High	High
<p>Risk(s): Risk: A main risk is that the government will not be able to take on the IFAD loan, given the debt distress of Egypt. Besides IFAD loan proceeds, the CROWN financing envelope includes more than US\$1.5 billion loan financing which are still to be formally requested by the GoE from ERBD, EIB, IsDB, AIIB and AfDB.</p>		
<p>Mitigations: Debt vulnerabilities in Egypt are primarily due to domestic public debt. The country's external debt, though it represents a smaller share, is on the rise and may also pose future risks to the sustainability of its debt profile. The main policy measures to reduce public debt are aligned with the Egypt 2030 Vision, which includes improving liquidity and tradability of debt instruments, strengthening non-banking financial markets and gaining access to international financial markets. The country's macroeconomic outlook shows strong initiatives to implement structural reforms by the government. The rollover risk and debt</p>		

path remain macroeconomic concerns even though CROWN is exploring different financing terms for channeling co-financing. Inflation and exchange risk will be factored in the overall project financial and economic analysis.		
Fragility and security	Substantial	Substantial
Risk(s): The geo-political situation has deteriorated drastically, including the conflict in Gaza, maritime insecurity in the Red Sea and state collapses in neighbouring Libya and Sudan. Armed conflict and instability could spill over, even if Egypt until now has avoided any significant contagion. There is continuity at the Head of State level with the recent election of the incumbent President for a third term, assuring some level political stability and continuity,		
Mitigations: Egypt retains an inherent fragility risk, based on the Fragility State Index. However, at the local level, CROWN will mitigate conflict risks by implementing participatory planning methods and building institutional and capacity structures (of CDAs, WUAs, etc.) as well as leverage existing community-based grievance redress mechanisms associated with irrigation development.		
Sector Strategies and Policies	Moderate	Moderate
Policy alignment	Low	Low
Risk(s): The risk that the government will not have the resources or will to implement the core strategic plans incl.: the National Water Resources Plan, the Sustainable Agricultural Development Strategy this would undermine the modernizing of irrigation.		
Mitigations: CROWN aims to address water scarcity as one of the greatest and most imminent threats to Egypt and takes a holistic (nexus) approach realizing the interconnectedness with aspects of food security and energy efficiency. The relevant policies align with the COSOP and IFAD 12 strategic framework. At national level, CROWN aligns with the National Water Resources Plan, and the Sustainable Agricultural Development Strategy which prioritize modernizing and increasing irrigation efficiency and improving resource productivity. CROWN addresses IFAD's priorities of youth and gender sensitivity by promoting job opportunities and entrepreneurship. IFAD's climate financing priority will be ensured by linking rural finance with climate-resilient and renewable technologies.		
Policy development & implementation	Moderate	Moderate
Risk(s): There is a risk that projects interventions could not be effectively scaled up/sustainable due to the not conducive policy environment. In particular, within the on-going policy reforms agenda of Egypt, water availability is becoming a growing issue and concern for IFAD target group and IFAD project outputs delivery.		
Mitigations: Agriculture policies are based on solid evidence that water availability is declining in the sector. This requires joint action at all levels, including farmers investing in better practices for the in-field water distribution. Among the key components of the project will be building and strengthening local institutions (e.g., water users' associations and farmers' representations at branch canal levels), which have been foreseen in recent regulatory changes (amended Water Resources and Irrigation Law No. 147 of 2021 and its bylaws ratified in January 2023) but have not yet been fully implemented. This project will build upon farmers' increased awareness of their role and the additional opportunities brought about by the project. MoWRI and MoALR will also be required to adopt and own their role as change facilitators during this process.		
Environment and Climate Context	Moderate	Moderate
Project vulnerability to environmental conditions	Moderate	Moderate
Risk(s): Water scarcity is the main environmental problem in Egypt that is combined with inefficient irrigation techniques and inefficient management of irrigation infrastructure. The project might also operate in areas characterized with soil/water salinity. The combination of less water availability and low soil quality threatens the agriculture sector's sustainability and thus the country's food security.		
Mitigations: The project is expected to have major environmental and social benefits related to water conservation, stronger institutions to manage natural resources, more profitable agricultural investments and wider involvement for women and youth. The environmental focus of the project under NWFE allows for large investments in supporting youth and women-led enterprises that focus on processing agricultural waste - recycling, upcycling, composting and other forms of waste utilization will make use of material that is normally burned or disposed and causes numerous environmental problems. In addition, climate smart agricultural production techniques that promote water saving irrigation methods, use of adapted crop varieties and land preparation methods will be encouraged. Runoff and contamination of groundwater tables may also pose environmental		

challenges downstream. As such, monitoring at system level (groundwater and drains) will also mitigate the environmental risks of salinity at farm level.		
Project vulnerability to climate change impacts	Moderate	Moderate
Risk(s): The projected increase in temperature, climate variability and extreme events combined with sea level rise are the main climate hazards for Egypt that threaten the country's food security. The existing water scarcity in the country increases its exposure to these hazards. The country has a moderate adaptive capacity thanks to presence of a strong climate change policy framework and a good rural infrastructure basis.		
Mitigations: The Project will increase agricultural productivity, combat water scarcity, increase water use efficiency, and maintain and manage soil fertility (through CSA practices such as mulching, shifting crop calendars). The project will invest in efficient irrigation infrastructure, promotion of climate smart agriculture techniques (addressing production inefficiencies affected by fragmented land), sustainable value-chain oriented agricultural activities, improved linkage to markets and demand-oriented advisory services to increase the resilience of selected value chains (horticulture, MAPs, cereals, livestock, etc.) to climate change.		
Project Scope	Moderate	Moderate
Project relevance	Low	Low
Risk(s): There is a risk that the programme will not be able to convince farmers to switch to more effective and efficient production regimes, in particular water saving methods. This is the core of the programme and also a key policy objective.		
Mitigations: The project focus is aligned with the Sustainable Agriculture Development Strategy Towards 2030, by supporting water-efficient agricultural production, demonstrating climate-resilient farming and enhancing the marketing capabilities of smallholder farmers and building capacity for micro-enterprises. The project support to Egypt's agriculture transition to modern and efficient irrigation for improved resources productivity is a key element of the GoE's updated National Water Resources Plan to 2037, designed to address water scarcity as the most pressing and potentially devastating threat for Egypt in the next decade.		
Technical soundness	Moderate	Moderate
Risk(s): CROWN hinges on the ability to find suitable, profitable, scalable and acceptable solutions to increased water scarcity, that will simultaneously economise on water while improving incentives to farmers to adopt the new technologies. However, the most effective incentive, that of putting a price on water, is not an option as that is against government policy. Hence there is a risk that the solutions suggested may not be sufficiently convincing.		
Mitigations: Through CROWN, IFAD's past achievements and those of the government will be built upon and scaled up. There are several key lessons learned from past projects, including OFIDO, IIP, IIIMP, PRIME and SAIL. Participatory irrigation management designed to improve the knowledge, management, and technical capacity of existing WUAs regarding water efficiency and equity will be the first pillar of a long-term strategy. The implementation of an M&E system will also lead to a unified information management system, as well as the development of appropriate tools and methodologies for monitoring and identifying areas for improvement. Additionally, in the absence of water pricing, the project will have to convince farmers about the benefits of modern irrigation for long-term sustainability of proposed investments in irrigation infrastructure. CROWN will establish demonstration plots for modern irrigation and improved furrow irrigation to collect detailed information on the costs, benefits and irrigation efficiency of the water-saving irrigation technologies. The results of the demonstration plots will allow farmers to take free, prior and informed decisions on investing in irrigation equipment. The project will provide a groundwater well at the mesqa pump station as a backup water source that will ensure that water is available when needed for irrigating the crops.		
Institutional Capacity for Implementation & Sustainability	Substantial	Substantial
Implementation arrangements	Substantial	Substantial
Risk(s): The main risks of the implementation arrangements are related to ensuring proper coordination and collaboration during implementation, especially concerning the two-line ministries, MoALR and MoWRI. If this collaboration is compromised it will be difficult to ensure implementation progress and overall project effectiveness.		
Mitigations: The Programme Steering Committee (PSC) for the food pillar of the NWFE will guide the CROWN program on policy and strategic direction. To handle the broad scope of the NWFE, a dedicated CROWN PSC will be established, comprising senior ministerial staff tasked with translating NWFE guidance into		

national policies. The Minister of MoPEDIC will appoint the PSC Chair, and members will include representatives from Beni Sweif and Minya governorates, as well as officials from MoPEDIC, MoE, MoALR, MoWRI, PFI, and selected private sector agribusiness and export representatives (if required). Two Lead Project Agencies will oversee project implementation: the Ministry of Water Resources and Irrigation (MoWRI) and the Ministry of Agriculture and Land Reclamation (MoALR) and two PMUs will be established at the two Ministries.. In Phase II, the credit line will be implemented by the wholesaler MSMEDA and ADP with their existing structure.		
M&E arrangements	Moderate	Moderate
Risk(s): There is a risk that the CROWN's M&E processes and systems will not be able to monitor, validate, analyse and communicate results, capture lessons, and adjust implementation to seize opportunities and take corrective actions in a timely manner. This is especially critical as CROWN will need robust evidence to be able to provide scalable models to ensure that the benefits are replicated.		
Mitigations: All project components and sub-components will use a simple target group monitoring tool to track socio-economic characteristics of the project's target group. To measure poverty outreach, 50% of beneficiaries should be classified as poor in the T&K database. ADP and MSMEDA will provide consolidated progress reports quarterly. In addition to collecting data and case study material for CSA demonstrations, enterprise development etc., the M&E team will manage knowledge management activities.		
Project Financial Management	High	High
Organization and staffing	High	High
Risk(s): lack of dedicated FM staff to carry out the programme.		
Mitigations: qualified FM staff to be seconded or recruited based on agreed TORs in, PMUs of MoALR and MoWRI on full time basis and to be trained by IFAD on financial management policies and procedures. The appointment/recruitment of key FM staff will be condition for disbursement.		
Project budgeting	High	High
Risk(s): a) many layers within the budget creation and approval process leading to delays in finalization and submission of AWPB; b) Overruns and unrealistic budgets and weak monitoring and controls over actual against budget.		
Mitigations: a) Each of the two PMUs to prepare own AWPB, and PMUs/agencies involved in the implementation of the programme will receive assistance to ensure that the budgets are prepared in a realistic and appropriate manner; b) steering committee meetings to be held to discuss budgets and implementation progress. c) Interim financial reports, prepared by each PMU/agency showing progress against budgets to be submitted to IFAD.		
Project funds flow/disbursement arrangements	High	High
Risk(s): funds are not requested and channelled in a timely manner to meet disbursement needs.		
Mitigations: a) dedicated designated account(s) for each PMU/agency; b) submission of quarterly WAS based on IFRs/cash forecast by each PMU and training of FM team on IFAD's procedures for withdrawal.		
Project internal controls	High	High
Risk(s): a) absence of Financial Management manual tailored to the operation to reflect the internal control system; b) Weak control structures magnified with vast distances between Centre and governorates; c) absence of risk based internal auditor function		
Mitigations: a) a draft FM manual has been prepared and to be updated and maintained by PMUs/agencies at the start-up/ implementation phase as needed; b) collaboration between finance and M&E teams on physical missions; and include verification of sample of end beneficiaries and civil work in the TORs of external auditor		
Project accounting and financial reporting	High	High
Risk(s): lack of accounting software system to facilitate recording and reporting as per IFAD requirements; b) inconsistency between different PMUs in the accounting standard adopted for preparation of the accounts		
Mitigations: An accounting software system to be purchased and installed by each PMU; b) training on IPSAS cash basis for financial management teams of both PMUs		
Project external audit	High	High
Risk(s): noncompliance with IFAD requirements in term of quality, timing and scope		

Mitigations: a) Engage a private audit firm to conduct external audit for each agency; and ensure yearly pre- audit and post-audit meetings to discuss with selected firm the scope and deliverables including agreed upon procedures based on cleared TORs by IFAD.		
Project Procurement	Moderate	Moderate
Legal, regulatory and policy framework	Moderate	Moderate
Risk(s): Egypt has a well-functioning procurement framework despite challenges in operationalizing the complaints, and e-tender systems. National SPDs have some variances from minimum IFAD requirements.		
Mitigations: The Project will rely on National PP Law and Regulations to the extent not conflicting with IFAD Rules. National SPDs for simple and national-level procurement can be adapted to meet minimum requirements. ICB and Consulting Services will follow IFAD rules and SPDS.		
Institutional Framework and Management Capacity	Moderate	Moderate
Risk(s): Key risks relate to publicity and access to the e-tenders platform, weakness of training programs, and absence of procurement monitoring/review reports and data.		
Mitigations: PIU staff will sit for BUILDPROC and any other needed training; publicity of procurement opportunities will be maximized; Support and supervision missions will be intense at project starting period; mandatory standstill period will be adopted. OECD Pillar III – Public Procurement Operations and Market Practices		
Public Procurement Operations and Market Practices	Moderate	Moderate
Risk(s): The procurement market is functioning well, but with absence of strategic planning and key role allocations internally and externally.		
Mitigations: PIU capacities in strategic planning and strategic market engagement should be strengthened coupled with extensive GPN dissemination and robust staffing practices.		
Accountability, Integrity and Transparency of the Public Procurement System	Moderate	Moderate
Risk(s): The effectiveness of complaints, audit and performance review functions is not evident in presence of multiple agencies (GAGS, ASA, ACA, Complaints Bureau, etc.).		
Mitigations: IFAD will exercise review and control through IS and SM's as well as the daily support by the Country Team. IFAD's policies and reporting hotlines will be accessible to all bidders and interested parties.		
Assessment of Project Complexity	Moderate	Moderate
Risk(s): Risks of non-interoperable or incongruent outputs is high in case procurement is segregated.		
Mitigations: Strategic Packaging is of critical importance as well as the coordination of procurement by various PIUs.		
Assessment of Implementing Agency Capacity	Moderate	Moderate
Risk(s): The Rating on PIU has been derived tentatively from analyzing the SAIL PIU; it should be updated once the PIU is set-up.		
Mitigations: Proper selection of PIU staff and continuous training commencing with start-up are of critical importance; the role of the IFAD country team is critical to handhold and support especially in the early years of the project.		
Project Procurement Overall	Moderate	Moderate
Risk(s): Egypt has a developed procurement framework with some deviations from IFAD's and international mainstream systems and has a well-functioning market; however, the institutional setup has its limitations especially with respect to access to opportunities from abroad, roles and responsibilities for audit and monitoring and complaints management. The sector has a sufficient supply of experienced practitioners with the national system, but attracting high qualifications to procurement positions and training such staff is a critical success factor. Critical areas in capacity building include strategic planning, consulting services procurement, contract management and SECAP.		
Mitigations: A PIM will elaborate on areas where the national system deviates from minimum IFAD requirements; ICB and consulting services will follow IFAD rules that must also be respected with regards to policies, self-certification, reporting hotlines and mandatory standstill. Staff recruitment and training will be reviewed by IFAD and a sufficient number of support and supervision missions will be conducted. PIU staff will need to embrace the PIM and PS in order to strategize procurement delivery, SECAP integration, etc. International access to etenders.gov.eg should be resolved to ensure open and free worldwide access.		

Environment, Social and Climate Impact	Low	Low
Biodiversity conservation	Low	Low
Risk(s): The project will not intervene in protected areas or areas of significant biodiversity. The project will not also utilise genetically modified organisms or introduce alien species.		
Mitigations: N/A		
Resource efficiency and pollution prevention	Moderate	Moderate
Risk(s): The project may inadvertently increase the use of fertilisers and pesticides as a result of the increase in agricultural activity following irrigation infrastructure investments.		
Mitigations: The project will raise awareness on the negative agricultural practices that can lead to environmental externalities such as resource inefficiencies and pollution. As such, the project will aim to decrease pollution due to optimized agrochemical use. This includes trainings on climate smart agricultural practices which will emphasize the use of organic fertilizers and integrated pesticide management techniques to mitigate this risk and contribute to sustainable natural resources management. An Integrated Pest Management (IPM) and Solid waste management (SWM) plan have been developed and annexed to the ESCMP.		
Cultural heritage	Low	Low
Risk(s): The project will not intervene in areas with cultural significance nor have an impact on the intangible cultural heritage. However, Egypt is rich in archaeological and cultural sites, and project activities building infrastructure (collection centres, warehouses etc.) could possibly be involved in such a process.		
Mitigations: Although the project is not working in areas with cultural significance nor have an impact on the intangible cultural heritage, the Archaeological Chance Find procedure has been developed as part of the SECAP		
Indigenous Peoples	Low	Low
Risk(s): The project will not intervene in areas with indigenous people or vulnerable ethnic groups.		
Mitigations: N/A		
Community health and safety	Moderate	Moderate
Risk(s): The project will not cause any significant adverse impacts on the physical, mental, nutritional or social health/safety status of an individual, group, or population, including because of gender based violence.		
Mitigations: Instituting a gender sensitivity training and employment system for all participating Ministries, Departments and Agencies to ensure sexual harassment policy at all levels in the project. Incorporate administrative and legal measures against those workers who commit GBV and sexual harassment. Ensure that the GRM system is accessible to women and that immediate action is taken in case of documented GBV in the project's area. This includes a sensitization of men on gender equality issues, by integrating gender sensitization and training in FFSs and extension curricula		
Labour and working conditions	Moderate	Moderate
Risk(s): There is a moderate risk that child labour maybe involved in some of the project activities given the context of the agriculture sector in Egypt.		
Mitigations: The ESCMP developed includes measures linked to raising awareness on the impact of labour on children during trainings, the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities and reporting any cases to the project and relevant government stakeholders. The start-up workshop shall also highlight this to all stakeholders.		
Physical and economic resettlement	Low	Low
Risk(s): No physical or economic resettlement will result from any of the project activities.		
Mitigations: N/A		
Greenhouse gas emissions	Low	Low
Risk(s): GHG emissions because of some of the construction and transport activities will be negligible. However, indirect emissions may arise from an increased use of chemical fertilizers and pesticides		
Mitigations: The project is expected to reduce GHG emissions through investments in solar energy for pumping, warehouses and collection centres. In addition, the project will promote waste valorisation (i.e. use of livestock manure as organic fertilizer) which will reduce the use of chemical fertilizers and pesticides		

(fossil fuel based). CROWN will track the renewable energy activities supported under the project and provide GHG emission reduction potential of the project interventions following the default, Tier 1 approach of the Intergovernmental Panel on Climate Change (IPCC) Guidelines on National GHG Inventories.		
Vulnerability of target populations and ecosystems to climate variability and hazards	Moderate	Moderate
Risk(s): The increased productivity targeted by the project may cause a rise in the agricultural investments as the sector becomes more profitable. This may cause these investments to be vulnerable to the increasing climate change impacts caused by increase in temperatures, seasonal variations, increase in pests and diseases, sea level rise and more frequent extreme weather events.		
Mitigations: Using more efficient irrigation methods and climate-smart agriculture techniques (varieties that are more resistant to heat, salinity, and pests), the project will build the adaptive capacity of communities in the target areas. Additionally, by improving irrigation networks, managing land resources effectively, enhancing agro-industry and marketing systems, and building capacities for institutions and rural communities, CROWN is well aligned with the National Strategy for Adaptation to Climate Change and Disaster Risk Reduction.		
Stakeholders	Substantial	Substantial
Stakeholder engagement/coordination	Substantial	Substantial
Risk(s): The risk that relevant stakeholders are not identified, both in terms of potential financiers (e.g. other IFIs wanting to contribute) but also in terms of marginalised potential beneficiaries. This could jeopardise both expansion of the CROWN and its reach in terms of depts and impact on rural poverty reduction.		
Mitigations: The full design includes a clear implementation modality with clear roles and responsibilities for MoALR, MoWRI and other key stakeholders. The institutional analysis has been updated based on the consultations held during the design phase. The Coordination mechanism (e.g., project steering committee) and other bodies have been defined. These will also be assessed during implementation for their effectiveness and inclusiveness. Moreover, all development partners and IFIs (potential co-financiers) have been consulted and kept informed of the progress of the project.		
Stakeholder grievances	Moderate	Moderate
Risk(s): There is relatively limited experience in Egypt on the existence of and even less so, the use of grievance and redress mechanism which could render them ineffective, leading to unaddressed stakeholder complaints that may undermine CROWN implementation and achievement of project development objectives		
Mitigations: The ESCMP includes a proposed Grievance and Redress Mechanism (GRM) that is project specific. The start-up workshop will make amendments to the GRM based on the feedback from the different stakeholders to better fit the project context. The GRM will be part of the M&E system and a database for complaints will be created including what actions were taken to address them.		