Part I: Project Information

GEF ID
10929

Project Type
MSP

Type of Trust Fund
MTF

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Public-Private Blended Finance Facility for Climate-Resilient Rice Landscapes

Countries
Regional, Bangladesh, Cambodia, Viet Nam

Agency(ies)
FAO

Other Executing Partner(s)
Sustainable Rice Platform (SRP), World Business Council for Sustainable Development (WBCSD) and other partners

Executing Partner Type
Others

GEF Focal Area
Climate Change

Sector
AFOLU

Taxonomy

Climate Change, Focal Areas, Climate Change Adaptation, Innovation, Private sector, Climate resilience, Climate finance, Least Developed Countries, Livelihoods, Influencing models, Demonstrate innovative approache, Deploy innovative financial instruments, Stakeholders, Indigenous Peoples, Private Sector, Capital providers, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, SMEs, Large corporations, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Beneficiaries, Sex-disaggregated indicators, Gender results areas, Access to benefits and services, Capacity Development, Capacity, Knowledge and Research, Knowledge Exchange, Knowledge Generation, Training, Learning, Theory of change, Adaptive management

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

Principal Objective 2

Biodiversity

No Contribution 0

Land Degradation

No Contribution 0

Submission Date

2/24/2022

Expected Implementation Start

7/1/2023

Expected Completion Date

6/30/2026

Duration

36In Months

Agency Fee($)

95,022.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	LDCF	400,228.00	1,458,957.00
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	SCCF-A	200,000.00	600,250.00
CCA-2	Mainstream climate change adaptation and resilience for systemic impact	LDCF	339,071.00	1,128,521.00
CCA-2	Mainstream climate change adaptation and resilience for systemic impact	SCCF-A	60,929.00	312,522.00
		Total Project Cost($)	**1,000,228.00**	**3,500,250.00**

B. Project description summary

Project Objective

To catalyse public and private financing for climate-resilient rice landscapes, value chains and livelihoods

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. Designing an integrated financing mechanism to increase investments in climate-resilient rice landscapes, value chains and livelihoods - LDCF	Technical Assistance	Outcome 1: Integrated financing mechanism designed leading to increased access by producers and other value chain actors[1] to financing for climate-resilient rice[2] landscapes, value chains and livelihoods *Indicators:* ? Financing mechanism involving a Resilient Rice Landscapes (RRL) Facility and associated funds[3] designed ? At least 6 potential counterparts identified At least 2 potential financiers identified for investment in the financing mechanism [1] This may involve public and private actors, incl. supporting actors (details to be elaborated as part of the design of the financing mechanism). [2] May involve rice and other crops/commodities in rice landscapes. [3] Envisioned to include (i) a de-risking facility or mechanism, (ii) national revolving fund facilities, and (iii) non-returnable grant facilities.	Output 1.1: Gender-sensitive technical options requiring financing for adaptation and resilience (and mitigation) in rice landscapes identified. Output 1.2: Gender-sensitive financing needs and opportunities in selected rice landscapes identified, including potential counterparts. Output 1.3: Gender-responsive eligibility criteria for borrowers and grant recipients established based on considerations of potential to deliver adaptation and resilience benefits	LDCF	333,200.00	1,082,087.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
1. Designing an integrated financing mechanism to increase investments in climate-resilient rice landscapes, value chains and livelihoods - SCCF	Technical Assistance	Same as above	Same as above	SCCF-A	168,500.00	381,913.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. Capacity development of national and local stakeholders to invest effectively in climate-resilient rice landscapes - LDCF	Technical Assistance	Outcome 2: Farmers (women and men), producer groups, counterparts and intermediaries have increased financial and technical capacities to invest effectively in climate resilience *Indicators:* ? 6,250 stakeholders (50% women[1], 25% youth) and 6-9 institutions with increased capacities At least 6 partnerships established and operational [1] A lower percentage may apply in Bangladesh given the local context.	Output 2.1: Training provided to counterparts and intermediaries on accessing, administering and investing the facility?s funds. *(financial, technical and social/gender aspects)* Output 2.2: Partnerships established with local institutions and agricultural service providers to provide technical support and training to local stakeholders on climate-resilient practices, SRP, and organizational and financial skills.	LDCF	140,991.00	739,130.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
2. Capacity development of national and local stakeholders to invest effectively in climate-resilient rice landscapes - SCCF	Technical Assistance	Same as above	Same as above	SCCF-A	62,209.00	260,870.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3. Impact monitoring, governance, and learning and knowledge sharing - LDCF	Technical Assistance	Outcome 3: Program-wide impact monitoring, governance, adaptive learning and knowledge sharing mechanisms developed and implemented *Indicators:* Program M&E and key performance indicators in place	Output 3.1: Adaptation metrics and mechanisms for impact monitoring, governance and safeguards identified and established. Output 3.2: Knowledge is captured and shared with relevant stakeholders nationally and regionally to support adaptive learning and scaling up. Output 3.3: Project monitoring and evaluation and adaptive learning undertaken.	LDCF	197,899.00	530,293.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
3. Impact monitoring, governance, and learning and knowledge sharing - SCCF	Technical Assistance	Same as above	Same as above	SCCF-A	6,500.00	187,413.00
			Sub Total ($)		**909,299.00**	**3,181,706.00**

Project Management Cost (PMC)

LDCF	67,209.00	235,968.00
SCCF-A	23,720.00	82,576.00
Sub Total($)	**90,929.00**	**318,544.00**
Total Project Cost($)	**1,000,228.00**	**3,500,250.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Other	World Business Council for Sustainable Development (WBCSD)	Grant	Investment mobilized	100,250.00
Civil Society Organization	Sustainable Rice Platform (SRP)	Grant	Investment mobilized	500,000.00
Other	International Rice Research Institute (IRRI)	In-kind	Recurrent expenditures	300,000.00
Private Sector	Food Securities Fund S.A. (through Clarmondial)	Loans	Investment mobilized	2,000,000.00
Donor Agency	Green Climate Fund (GCF) ? through FAO	Grant	Investment mobilized	500,000.00
GEF Agency	FAO	In-kind	Recurrent expenditures	100,000.00
			Total Co-Financing($)	**3,500,250.00**

Describe how any "Investment Mobilized" was identified

Investment mobilized was identified in consultation with partners during Project Identification Form (PIF) and CEO Endorsement Request development in 2022. It totals USD 3.1 million and includes (1) USD 100,250 in grant financing from WBCSD from the Just Rural Transition Initiative; (2) USD 500,000 in grant financing from the Sustainable Rice Platform (SRP) for investments in capacity building programs, the development of national chapters, and other work related to the SRP Standard, Performance Indicators and Assurance Scheme; (3) USD 500,000 in grant financing from GCF (through FAO) for a regional readiness project, and (4) USD 2 million from the Food Securities Fund (an investment fund registered in Luxemburg), which would involve additional working capital for a rice transaction in the region (through Clarmondial, the Fund?s investment advisor). // In-kind co-financing totals USD 400,000 and includes (1) USD 300,000 from IRRI for projects across the region related to sustainable agrifood systems, digital technologies, sustainable intensification, climate change adaptation and agroecological transition; and (2) USD 100,000 from FAO?s Regular Programme. // Note: As explained in Section 6.b Coordination with other projects, there is some GEF-7 Non-Grant Instrument (NGI) investment in the Food Securities Fund. It should, therefore, be noted that the co-financing indicated to the SRLI will not come from the NGI portion of the Food Securities Fund.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	LDCF	Regional	Climate Change	NA	739,299	70,233	809,532.00
FAO	SCCF-A	Regional	Climate Change	NA	260,929	24,789	285,718.00
			Total Grant Resources($)		**1,000,228.00**	**95,022.00**	**1,095,250.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

50,000

PPG Agency Fee ($)

4,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
FAO	LDCF	Regional	Climate Change	NA	36,957	3,511	**40,468.00**
FAO	SCCF-A	Regional	Climate Change	NA	13,043	1,239	**14,282.00**
				Total Project Costs($)	**50,000.00**	**4,750.00**	**54,750.00**

Meta Information - LDCF

LDCF true
SCCF-B (Window B) on technology transfer false
SCCF-A (Window-A) on climate Change adaptation true

Is this project LDCF SCCF challenge program?
true

This Project involves at least one small island developing State(SIDS). false

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This Project involves at least one fragile and conflict affected state. false

This Project will provide direct adaptation benefits to the private sector. true

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). false

This Project has an urban focus. false

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	**100.00%**
Natural resources management	**0.00%**
Climate information services	**0.00%**
Coastal zone management	**0.00%**
Water resources management	**0.00%**
Disaster risk management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise true
Change in mean temperature true
Increased climatic variability true
Natural hazards true
Land degradation true
Coastal and/or Coral reef degradation false
Groundwater quality/quantity true

To calculate the core indicators, please refer to Results Guidance

Core Indicators - LDCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	8,880	4,440	4,440	50.00%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	1,110.00

CORE INDICATOR 3	
Total no. of policies/plans that will mainstream climate resilience	0

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	4,624	2,312	2,312	50.00%

OUTPUT 1.1.1

Physical and natural assets made more resilient to climate variability and change

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Male Female

Total number of direct beneficiaries from more resilient physical assets	**8,880**	**4,440**	**4,440**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
1,110.00			**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**0**	**0**	**0**

Km of road	Km of riverban	Km of coast	Km of storm water drainage

Other	Other(unit)	Comments
0		

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

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		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**0**	**0**	**0**

Livelihoods and sources of incomes strengthened / introduced			
Agriculture	Agro-Processing	Pastoralism/diary	Enhanced access to markets
false	**false**	**false**	**false**
Fisheries /aquaculture	Tourism /ecotourism	Cottage industry	Reduced vulnerability of supply chain
false	**false**	**false**	**false**
Beekeeping	Enhanced opportunity for employment	Other	Comments
false	**false**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability

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		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**0**	**0**	**0**

Climate hazards addressed

Flood	Storm	Heatwave	Drought
false	**false**	**false**	**false**

Other	Comments
false	

Climate information system developed/strengthened

Downscaled Climate model	Weather/Hydromet station	Early warning system	Other
false	**false**	**false**	**false**

Comments

Climate related information collected

Temperature	Rainfall	Crop pest or disease	Human disease vectors
false	**false**	**false**	**false**

Other	Comments
false	

Mode of climate information disemination

Mobile phone apps	Community radio	Extension services	Televisions
false	**false**	**false**	**false**

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

Types of natural ecosystem

Desert **false**	Coastal **false**	Mountainous **false**	Grassland **false**
Forest **false**	Inland water **false**	Other **false**	Comments

OUTPUT 1.2.1

Incubators and accelerators introduced

		Male	Female
Total no. of entrepreneurs supported	**0**	**0**	**0**

		Comments
No. of incubators and accelerators supported	**0**	

		Comments
No. of adaptation technologies supported	**0**	

OUTPUT 1.2.2

Financial instruments or models to enhance climate resilienced developed

Financial instruments or models

PPP models	Cooperatives	Microfinance	Risk insurance
true	**false**	**false**	**false**

Equity	Loan	Other	Comments
false	**true**	**true**	**Blended finance**

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0		

Sectors

Agriculture	Fishery	Industry	Urban
false	**false**	**false**	**false**

Rural	Health	Water	Other
false	**false**	**false**	**false**

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

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No. of institutional partnerships established or strengthened

Comments

OUTPUT 2.1.3

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 2.1.4

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 2.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s) **6**

Comments
2-3 per country; financial institutions or private sector entities

OUTPUT 2.2.2

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

---

No. of mechanism(s) **1**

Comments
The Finance Facility

OUTPUT 2.2.3

Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

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No. of initiatives or technologies **0**

Comments

OUTPUT 2.2.4

Public investment mobilized

Amount of investment (US$) **0**

Comments

OUTPUT 2.2.5

Private investment mobilized

Amount of investment (US$) **0**

Comments

OUTPUT 2.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

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Total no. of people trained	**4,624**	Male **2,312**	Female **2,312**
Of which total no. of people at line ministries	**0**	Male **0**	Female **0**
Of which total no. of community/association	**0**	Male **0**	Female **0**
Of which total no. of extension service officers	**0**	Male **0**	Female **0**
Of which total no. of hydromet and disaster risk management agency staff	**0**	Male **0**	Female **0**
Of which total no. of small private business owners	**4,624**	Male **2,312**	Female **2,312**
Of which total no. school children, university students or teachers	**0**	Male **0**	Female **0**

Other	Comments
6	**Local farmers and cooperative members; financial institutions and private sector**

OUTPUT 2.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

		Male	Female
No. of people with raised awareness	**0**	**0**	**0**

Please describe how their awareness was raised

OUTPUT 3.1.1

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

No. of national climate policies and plans

Comments

OUTPUT 3.1.2

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted

Comments

OUTPUT 3.2.1

No. of institutions with increased ability to access and/or manage climate finance

No. of institution(s)

Comments

OUTPUT 3.2.2

Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

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No. of mechanism(s)

Comments

OUTPUT 3.2.3

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

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No. of initiative(s) or technology(ies)

Comments

OUTPUT 3.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

		Male	Female
Total no. of people trained	**0**	**0**	**0**
		Male	Female
Of which total no. of people at line ministries	**0**		
		Male	Female
Of which total no. of community/association	**0**		
		Male	Female
Of which total no. of extension service officers	**0**		
		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**		

		Male	Female
Of which total no. of small private business owners	**0**		

		Male	Female
Of which total no. school children, university students or teachers	**0**		

Other	Comments

OUTPUT 3.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

		Male	Female
No. of people with raised awareness	**0**		

Please describe how their awareness was raised

Meta Information - SCCF

LDCF true

SCCF-B (Window B) on technology transfer false

SCCF-A (Window-A) on climate Change adaptation true

Is this project LDCF SCCF challenge program?
true

This Project involves at least one small island developing State(SIDS). false

---

This Project involves at least one fragile and conflict affected state. false

---

This Project will provide direct adaptation benefits to the private sector. true

---

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). false

---

This Project has an urban focus. false

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	**100.00%**
Natural resources management	**0.00%**
Climate information services	**0.00%**
Coastal zone management	**0.00%**
Water resources management	**0.00%**
Disaster risk management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*
Sea level rise true
Change in mean temperature true
Increased climatic variability true
Natural hazards true

Land degradation true
Coastal and/or Coral reef degradation false
Groundwater quality/quantity true

To calculate the core indicators, please refer to Results Guidance

Core Indicators - SCCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	3,120	1,560	1,560	50.00%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	390.00

CORE INDICATOR 3	
Total no. of policies/plans that will mainstream climate resilience	0

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	1,626	813	813	50.00%

OUTPUT 1.1.1

Physical and natural assets made more resilient to climate variability and change

		Male	Female
Total number of direct beneficiaries from more resilient physical assets	**3,120**	**1,560**	**1,560**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
390.00			**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**0**	**0**	**0**

Km of road	Km of riverban	Km of coast	Km of storm water drainage

Other	Other(unit)	Comments
0		

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**0**	**0**	**0**

Livelihoods and sources of incomes strengthened / introduced			
Agriculture	Agro-Processing	Pastoralism/diary	Enhanced access to markets
false	**false**	**false**	**false**
Fisheries /aquaculture	Tourism /ecotourism	Cottage industry	Reduced vulnerability of supply chain
false	**false**	**false**	**false**
Beekeeping	Enhanced opportunity for employment	Other	Comments
false	**false**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability

		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**0**	**0**	**0**

Climate hazards addressed

Flood	Storm	Heatwave	Drought
false	**false**	**false**	**false**

Other	Comments
false	

Climate information system developed/strengthened

Downscaled Climate model	Weather/Hydromet station	Early warning system	Other
false	**false**	**false**	**false**

Comments

Climate related information collected

Temperature	Rainfall	Crop pest or disease	Human disease vectors
false	**false**	**false**	**false**

Other	Comments
false	

Mode of climate information disemination

Mobile phone apps	Community radio	Extension services	Televisions
false	**false**	**false**	**false**

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

---

Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
false	**false**	**false**	**false**

Forest	Inland water	Other	Comments
false	**false**	**false**	

OUTPUT 1.2.1

Incubators and accelerators introduced

		Male	Female
Total no. of entrepreneurs supported	**0**	**0**	**0**

Comments

No. of incubators and accelerators supported	**0**

	Comments
No. of adaptation technologies supported	**0**

OUTPUT 1.2.2

Financial instruments or models to enhance climate resilienced developed

---

Financial instruments or models			
PPP models	Cooperatives	Microfinance	Risk insurance
true	**false**	**false**	**false**
Equity	Loan	Other	Comments
false	**true**	**true**	**Blended finance**

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

---

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0		

Sectors

Agriculture	Fishery	Industry	Urban
false	**false**	**false**	**false**
Rural	Health	Water	Other
false	**false**	**false**	**false**

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

---

No. of institutional partnerships established or strengthened

Comments

OUTPUT 2.1.3

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 2.1.4

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 2.2.1

No. of institutions with increased ability to access and/or manage climate finance

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No. of institution(s)

Comments

OUTPUT 2.2.2

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 2.2.3

Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

---

No. of initiatives or technologies

Comments

OUTPUT 2.2.4

Public investment mobilized

Amount of investment
(US$)

Comments

OUTPUT 2.2.5
Private investment mobilized

Amount of investment
(US$)

Comments

OUTPUT 2.3.1
No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	**1,626**	Male **813**	Female **813**
Of which total no. of people at line ministries	**0**	Male **0**	Female **0**
Of which total no. of community/association	**0**	Male **0**	Female **0**
Of which total no. of extension service officers	**0**	Male **0**	Female **0**
Of which total no. of hydromet and disaster risk management agency staff	**0**	Male **0**	Female **0**
Of which total no. of small private business owners	**1,626**	Male **813**	Female **813**
Of which total no. school children, university students or teachers	**0**	Male **0**	Female **0**
Other	Comments		

6	**Local farmers and cooperative members; financial institutions and private sector**

OUTPUT 2.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**0**	**0**	**0**
Please describe how their awareness was raised			

OUTPUT 3.1.1

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

---

No. of national climate policies and plans

Comments

OUTPUT 3.1.2

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

---

No. of systems and frameworks

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted

Comments

OUTPUT 3.2.1

No. of institutions with increased ability to access and/or manage climate finance

---

No. of institution(s)

Comments

OUTPUT 3.2.2

Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 3.2.3

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)

Comments

OUTPUT 3.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

		Male	Female
Total no. of people trained	**0**	**0**	**0**

		Male	Female
Of which total no. of people at line ministries	**0**		

		Male	Female
Of which total no. of community/association	**0**		

		Male	Female
Of which total no. of extension service officers	**0**		

		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**		

		Male	Female
Of which total no. of small private business owners	**0**		

		Male	Female
Of which total no. school children, university students or teachers	**0**		

Other	Comments

OUTPUT 3.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

---

		Male	Female
No. of people with raised awareness	**0**		

Please describe how their awareness was raised

Part II. Project Justification

1a. Project Description

1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

A. Rice production and consumption globally and in Asia

1. Rice is the primary staple food for 3.5 billion people, more than half of the world?s population, and provides over 20% of the global calorie intake. It is also the main staple crop of Asia. In lower-income countries of South and Southeast Asia, up to 70% of people?s dietary energy comes from rice. Annual per capita consumption of rice exceeds 100 kg in many Asian and some African countries.[1] Rice is the third largest crop globally (after wheat and maize) in terms of area harvested. Most of the world?s rice is consumed close to where it is produced; less than 10% is traded internationally compared to about 18% for wheat and 25% for soybeans.[2],[3]

2. Around 150 million mostly poor smallholder farmers worldwide depend on rice production for their livelihoods, growing it on small plots of land of often less than a hectare.[4] Rice is typically integrated into diverse farming and livelihood systems, complemented by a range of other crops, small livestock, aquaculture and off-farm employment; and forms part of complex ?rice landscapes? made up of production areas, natural ecosystems and urban areas, which are connected by flows of environmental services and socioeconomic dynamics.

3. Rice is both a contributor to climate change and is vulnerable to climate change impacts. Rice is highly exposed to the effects of climate change and water scarcity. Global production of rice is expected to fall by 15% by 2050 due to climate change. However, an increase of 26% in rice production is needed to meet global demand by 2035. Meanwhile, it is estimated that rice uses 40% of all irrigation water globally and is responsible for 10% of the world?s methane emissions.[5],[6] Rice also impacts the environment through overuse of agrochemicals, conversion of natural wetlands, and clearing of forests for agriculture. Intensive double and triple monocropping of rice in Asia have led to the depletion of soil micronutrients, the build-up of soil toxicity and a high incidence of pests and diseases. After rapid increases in yields during the Green Revolution, rice yield increases have levelled off in East and Southeast Asia, which account for 60% of world production.[7]

4. Although rice is grown in over 100 countries worldwide, over 85% of global production is from eleven Asian countries (including China, India, Bangladesh, Indonesia, Viet Nam, Thailand, Myanmar, the Philippines, Cambodia, Japan, and Pakistan).[8] In total, Asia accounts for approximately 90% of global rice production, 75% of global consumption, and 70% of exports.[9] Any major events affecting the availability or price of rice, such as harvest failures, export restrictions or sudden price increases, would pose a threat to the food security of millions of people. In Cambodia, for example, it is estimated that a 10% rise in the price of rice could lead to a 0.5% increase in the poverty rate.[10] At the same time, for millions of smallholder producers, falling rice yields and other climate change impacts represent an existential threat to their livelihoods.[11]

5. **Bangladesh** is the third-largest producer of rice and a net importer of rice.[12] **Cambodia** has experienced rapid yield gains since the 1990s and is today the world?s tenth-largest producer and seventh-largest exporter of rice. However, yields are still low compared to other countries in the region and in the world due to a lack of access to inputs including fertilisers, high-quality seeds, and credit.

Also, the increase in yields was often achieved by higher rather than more efficient use of inputs, resulting in negative impacts to both environment and human health.[13] **Viet Nam** is currently the fifth-largest rice producer in the world and the third-largest exporter, with a relatively high average yield of nearly 6 tonnes/hectare. However, both rice yields and the amount of land suitable for rice cultivation are threatened by saltwater intrusion and other climate and non-climate factors.[14]

B. Climate change impacts

6. Rice production landscapes and value chains across Asia are increasingly exposed to severe climate risks and hazards, posing a major threat to global food supply and livelihoods. Climate change is already limiting production due to factors including temperature stress; changing rainfall patterns and seasonal flooding patterns; soil and aquifer salinization due to sea level rise; pest and disease pressures; and increased frequency and intensity of extreme weather events, particularly in mega deltas in Asia[15]. Rice-reliant communities are particularly sensitive to climate impacts and often have very low adaptive capacities, in part constrained by a limited supply of relevant financial services.[16]

7. Rice is vulnerable to **high temperatures**, which has already led to crop losses in Asia in recent years.[17] Computer simulations for major rice-growing regions of Asia have shown that rice yields would fall by up to 10% with every 1?C increase. In all three target countries of the project, temperatures are expected to increase with climate change. **Seawater intrusion** into rice-growing areas due to rising sea levels is increasingly impacting rice production. Saline conditions are expected to become increasingly widespread in deltaic production areas, potentially reducing yields by 15% in some of the world?s principal rice-growing areas. **Drought**, crop loss due to prolonged **flooding** of rice fields, and an increased incidence of **extreme weather events** and **pests and diseases** are also likely to reduce rice yields.[18]

8. A review of the vulnerability of Asian rice production to climate change highlighted the increasing risk of heat and drought stress across Asia. The review also emphasized that the **mega-deltas** which represent major rice-growing regions in Viet Nam, Myanmar and Bangladesh are particularly vulnerable to climate impacts as they are highly exposed to sea level rise and extreme weather events. In these deltaic regions, rice is often the predominant form of land use, and no other crop can be grown under the adverse conditions of unstable water levels and salinity. In these regions, significant improvements of the rice production systems are crucial for maintaining yields and increasing resilience to flooding and saltwater intrusion.[19]

9. *Effect on yields*. A growing number of studies report that changes in climate variables have resulted in changes in crop productivity and production. However, the direction of these impacts varies across spatial scales reflecting the suitability of different crops to growing conditions at different locations. In general, an increase in CO_2 level is found to increase crop yields (carbon fertilization effect) while increases in temperature reduced yields. However, studies suggest that the negative impacts of climate change are more significant than the positive effects of CO_2 fertilization in almost all climate scenarios, and that immediate adaptation measures are required regardless of the emission scenario. Declines in yield are predicted, under various scenarios, for Thailand, Bangladesh, southern China and western India, in particular.[20],[21] On the other hand, evidence suggests that warming has benefitted crop production in some high-latitude regions, such as Japan and northeast China.

10. Initial studies on the impact of climate change on rice production in Asia were conducted in the mid 1990s. A review conducted in 2019 of these and later impact assessment studies highlighted five high risk regions for rice production in Asia, namely rice cultures in southeast India (AEZ 1), northwest India (AEZ 6), continent of Southeast Asia (AEZ 2), central China (AEZ 6) and south-central to southwestern Japan. These regions are likely to suffer significant yield reductions by the projected global warming, mainly through increased spikelet sterility and shortened growth duration,

unless effective adaptation measures are developed.[22] Another study, in Bangladesh, suggests that rice yield reductions will also be determined by increases in maximum temperatures.[23]

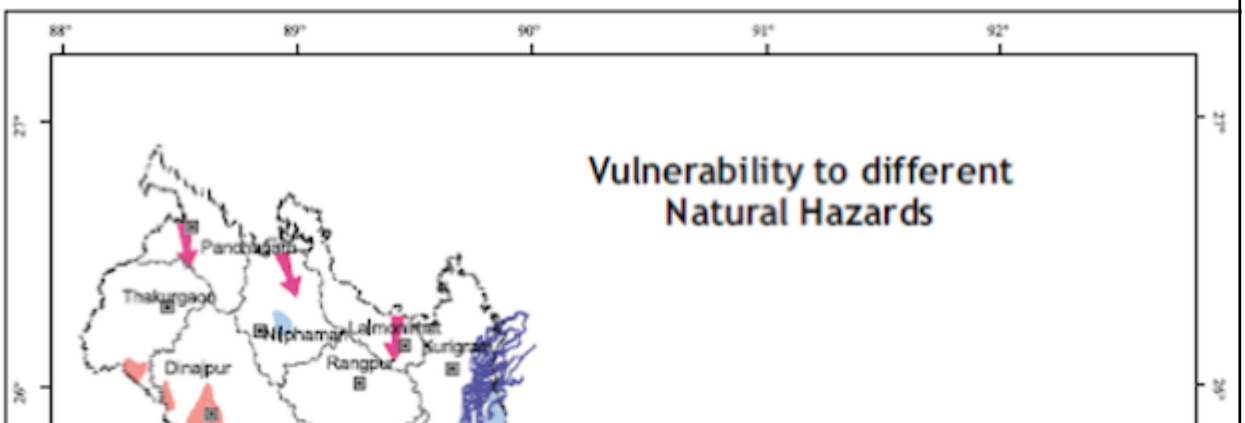
11. Rice-producing countries across Asia are considered highly vulnerable to the impacts of climate change. Bangladesh ranks 7th, Cambodia 14th, and Viet Nam 13th on the Global Climate Risk Index 2000 ? 2019.[24]

Box 1: Bangladesh country context and climate change impacts

12. *Country context.* Bangladesh is located in the tropics in South Asia and has an area of about 147,570 km2. The country consists of low and flat land, with the exception of a small proportion of hilly regions in the north-east and the south-east and some areas of highlands in the north and north-west. Floodplains occupy about 80% of the country. Bangladesh displays a tropical monsoon climate characterized by heavy summer rainfall and high summer temperatures. The reason for these climatic conditions is Bangladesh?s geographic location; the Himalayan mountain range acts as a barrier to moisture-laden monsoon winds in the summer season which cause intense rainfall and helps protect the country from extreme cold wind blowing towards it from the north. Hilly terrains in the eastern parts of the country cause the country to receive huge amounts of water as surface runoff during the monsoon season from June to September.[25] About 75% of the total cropped area and over 80% of the total irrigated area is planted to rice. Thus, rice plays a vital role in the livelihood of the people of Bangladesh.[26] Bangladesh has a population of 166.3 million and about two thirds of the population is engaged in agriculture. Women?s participation in the agriculture sector is 64.4%.[27]

13. *Climate change impacts.* Bangladesh is considered one of the countries most vulnerable to extreme events, climate variability and change.[28] The country?s location in the Bay of Bengal makes it susceptible to seasonal cyclones. Its location on a major floodplain increases the risks related to seasonal flooding. Low-lying coastal land is also vulnerable to future sea level rise. Bangladesh has already become hotter with a 0.5?C increase in mean temperature between 1976 and 2019.[29] Predicted increases in annual average temperatures range from 0.73?C (SRES A2 scenario) to 0.78?C (B1 scenario) by 2030 and from 1.32?C (A2 scenario) to 2.1?C (B1 scenario) by 2050 over the base year 2010.[30] Annual precipitation is predicted to increase from 4.92% (A2 scenario) to 6.30% (B1 scenario) by 2030 and from 8.1% (A2 scenario) to 8.41% (B1 scenario) by 2050. Floods, tropical cyclones, storm surges and droughts are likely to become more frequent and severe. Sea level rise and salinity intrusion is already being observed. Compared to the reference period of 1981?2010, the projected maximum pre-monsoon temperature in Bangladesh indicates an increase by 0.7/0.7/0.7?C in the near future (2021?2050) and 2.2/1.2/0.8?C in the far future (2071?2100) assuming the RCP8.5/RCP4.5/RCP2.6 scenario, respectively.[31]

14. High temperatures and heat stress already affect a significant part of the country?s land area, and under 4?C warming scenario, northern Bangladesh is projected to shift to a new, high temperature climatic zone. Monsoonal precipitation (mean and extreme rainfall) is projected to increase under all climate change scenarios, but there will also be an extended dry season ? increasing both the risk of floods and droughts. Production of some crops is projected to be impacted, with the length of growing season decreasing by 3% by 2050.[32] Based on recent precipitation anomalies, Bangladeshi farmers face increasing unpredictability in rainfall, a critical factor in agricultural livelihoods. In the High Barind Tract (Northwest Bangladesh), expected rise in temperatures combined with lower and more erratic rainfall during the dry season, is projected to lead to an increase in droughts. The increase of waterlogged areas is a severe problem, particularly in the coastal districts of Jessore, Khulna, and Satkhira. Reduced river flows have resulted in drainage congestion and left vast areas waterlogged. Climate change has been identified as a key driver of waterlogging because it contributes to increased flooding through increased precipitation and sea level rise.[33] Climate change induced sea level rise is also a driver for increasing salinity. Salinity in soils affects the growth and production of agricultural crops, including rice. Harmful soil and water salinity is mainly attributed to rising sea levels when arable land is affected by tidal flooding during the rainy season, direct inundation by saline water, upward and lateral movement of saline groundwater during the dry season and lack of freshwater inputs.[34]



Box 2: Cambodia country context and climate change impacts

20. *Country context.* Cambodia is situated in the tropical zone and has an area of about 181,035 km2 and a coastline of 435 km. Its topography is comparable to a bowl: surrounded by hills and with the Tonle Sap Great Lake in the middle. With a large land area still covered by forests, Cambodia has a significant carbon sink capacity that could provide benefits for Cambodia in carbon markets. However, the country is prone to floods, droughts, tropical storms and vector borne diseases. In coastal areas, it is exposed to sea level rise and severe impacts from typhoons. Rising temperatures lead to increased frequency and intensity of extreme weather events in a fragile socio-economic context. The country?s climate vulnerability results in loss and damage to human life, livelihoods and the national economy.[44]

21. Cambodia has a total population of 16.95 million.[45] Almost 70% of the Cambodian population is engaged in agriculture, about 60% of whom are women. The majority of farmers are smallholders, with 21% of households being landless and a further 45% owning less than one hectare.[46] Agricultural production is predominantly rain-fed and characterized by low input and low to moderate soil fertility, making the sector highly dependent on climatic conditions. Rice is Cambodia?s main staple and provides approximately 70% of nutritional needs. It is the principal crop of farmers. Rice production accounts for 15% of agricultural value addition, and paddy occupies 75% of cultivated land. Rice production, processing, and marketing employ about 3 million people, which is more than 20% of the country?s working-age population.[47] Around 80% of rice production originates from local varieties that are cultivated during the rainy season. High-yielding varieties are mainly planted during the dry season, and account for the remaining 20% of production.

22. Around 50% of paddy (harvested, unprocessed rice grain) produced in Cambodia is exported to neighbouring countries ? primarily Viet Nam and Thailand ? for milling and further distribution, which represents a huge lost opportunity for Cambodian rice millers and traders to add value, export directly, and create employment locally. Limited capacities to comply with premium quality and food-safety standards constrain Cambodian producers? access to international rice markets despite strong market demands.[48]

23. *Climate change impacts.* Climate change poses significant current and expected risks to Cambodia, particularly for farmers. Forecast trends indicate a wetter wet season with more intense rainfall events (leading to increased flooding), a hotter and drier dry season (leading to increased droughts), a later onset and shorter duration of the wet season (leading to longer droughts and more crop failures), and increased variability in weather patterns. Agriculturally reliant communities, such as those in the Tonle Sap plain, are particularly vulnerable to these threats given the high exposure and high sensitivity, especially those relying on rain-fed production of relatively lower-value commodity crops such as rice. Additionally, these communities and the institutions that support them generally have low adaptive capacities, particularly at sub-national levels. Under future climate conditions (2025 and 2050), most of Cambodia?s agricultural areas will be exposed to higher drought risks. The growing period for most agricultural areas will be less than five months (between two and three months). Efforts to increase the planting index of more than 1.0 may be impossible without the development of irrigation facilities. Based on data from the past 20 years, losses in production were mainly due to flooding (about 62%) and drought (about 36%). Most flooding occurs due to increased water levels in the Mekong River and Tonle Sap Lake between early July and early October. These two water bodies are linked to each other, and the increase in water levels in the Mekong River is closely related to rainfall throughout the basin.[49] Rising sea levels will potentially impact coastal systems in several ways, including inundation, flood and storm damage, loss of wetlands, erosion, saltwater intrusion, and rising water tables. Analysis of the impact of sea level rises on coastal areas in Cambodia suggests that a total area of about 25,000 ha will be permanently inundated by a sea level rise of one metre, increasing to 38,000 ha at a sea level rise of two metres.[50]

Box 3: Viet Nam country context and climate change impacts

29. *Country context.* Located in Southeast Asia, the mainland territory of Viet Nam occupies approximately 331,230.8 km2. Viet Nam has a coastline of 3,260 km and over one million km2 of sea waters, including two major archipelagos, and over 3,000 islands along the coastline and 10 bays. Three quarters of Viet Nam is mountainous with the altitude mostly from 100m to 1,000m in the Northeast, Northwest and Central areas. The remaining areas are alluvium plains. Viet Nam has a tropical monsoon climate. As the territory of Viet Nam stretches along many latitudes and terrains, the differences in climate between regions are significant and distinct. The northern climate has four seasons, including spring, summer, autumn, winter, while the southern climate has two seasons including the rainy season from May to November and the dry season from December to April.[62] Viet Nam has a total population of 98.17 million.[63] Women constitute a critical workforce in agricultural production in Viet Nam, with 48% of the female workforce engaged in agriculture compared to 45% for men.[64]

30. Viet Nam is the world?s fifth largest rice producer: the Vietnamese Mekong Delta produces 55.6% of the total, and 95% of rice exports. Intensive rice production practices have led to major yield gains. However, these practices have negatively impacted surface hydrology, aquifers, nutrient cycles, fisheries, and have led to land subsidence and agrochemical pollution.[65]

31. *Climate change impacts.* The annual average temperatures in all regions of Viet Nam are expected to increase compared to the base period of 1986-2005. Under the medium scenario (RCP4.5), average annual temperatures would rise by 1.2-1.7?C nationwide and by 1.6-1.7?C in the North and 1.2-1.3?C in the South by the middle of the century; by the end of the century the average temperatures will increase by 2.0-2.4?C in the North and by 1.8-1.9?C in the South. Under the high scenario (RCP8.5), temperatures will rise by 1.7-2.3?C nationwide and by 2.0-2.3?C in the North and 17-1.9?C in the South by the middle of the century; by the end of the century temperatures will increase by 3.8-4.3?C in the North and 3.2-3.5?C in the South.[66] Extreme temperatures are likely to show a clear increase. Annual rainfall tends to increase nationwide. Under both medium and high scenarios, annual rainfall is expected to increase by 10-15% by mid-century and up to 20% by the end of the century under RCP4.5 scenario. The average one-day maximum rainfall rises across the country (10-70%) compared to the base period. Sea level rise, increasing average flood volumes and cyclones will increase the depth and duration of floods.[67]

32. Climate change-induced changes in the extent and duration of saline intrusion in the Mekong Delta are highly sensitive to the use of human built water control infrastructure (i.e., dikes, canals, and sluice gates). The delta contains more than 3,900 canals and more than 5,000 sluice gates and hydraulic headworks. Increases in salinity concentration and duration in the coastal delta is directly related to the reduced amount of Mekong River flows during the dry season because of the declining flood retention areas that release flood waters at the end of the flood season. Sea level rise increases the dry season salinity concentrations and intrusion distance.

33. *Agriculture and climate change.* Based on the status quo, Viet Nam is expected to experience substantial yield losses. By 2030, projected decline in yields of rice in Viet Nam in the Red River Delta could be -2.2% and in the Mekong Delta could be -5.6%. By 2050, yield loss could be -32.6% in the Red River Delta and -7.8 to -8.6% in the Mekong Delta.[68] Yields of rainfed (seasonal) rice are likely to decrease as a net impact of changes in rainfall, evapotranspiration, temperature, and CO_2. For irrigated rice (two-crop and three-crop systems), there is likely to be a net increase in yields, as any negative impacts of higher evapotranspiration can be offset by higher volumes of irrigation pumping. Given higher than estimated flow regimes in mid-headwaters, it is likely that additional irrigation water will be available. However, this will increase the costs of production as more energy is used to pump water.[69]

34. Furthermore, it is estimated that if the sea level rises by 100 cm, the Mekong Delta and Ho Chi Minh City are at risk of losing 40.5% of total rice production in the region. By 2050, according to the average scenario of climate change, the potential yield of spring paddy may be decreased by around 717 kg/ha equivalent to 2.16 million tonnes; potential yield of summer-autumn rice may drop around 795 kg/ha equivalent to 1,470 thousand tonnes of production.[70] The period of agricultural drought per year is likely to significantly increase in large areas in the south and east of the Mekong Basin by 2050. Areas of the Mekong Delta will experience a 10% to 100% increase in drought months.[71] With the rise of temperature and extreme events, the number of typhoons operating in the East Sea and affecting Viet Nam may have a

36. ***Non-climate drivers of vulnerability.*** In addition to these climate drivers, non-climate drivers of vulnerability also play a role in increasing vulnerabilities in the target landscapes. Examples of non-climate drivers that have been identified through consultations during the project preparation phase are related to population growth, poverty, the expansion of agriculture into high-biodiversity areas, unsustainable agricultural practices leading to soil erosion and land degradation, suboptimal post-harvest processes, the lack of knowledge of climate-resilient practices and lack of access to finance. These drivers underpin the low adaptive capacity of the farmers and local communities.

37. ***Vulnerable groups.*** Climate hazards disproportionately affect asset-poor communities because of their limited adaptive and coping capacities. This reality, in turn, worsens their livelihood outcomes. In areas of Bangladesh, for example, where weather hazards are prevalent (waterlogging, cyclones, droughts, landslides, etc.) and livelihood strategies are limited, food insecurity persists from anywhere between one to seven months of the year. Women and children in such regions are especially affected, consuming inadequate, non-diversified diet, and more than half the population suffers from malnutrition. Climate change has a differentiated impact on women and men and affects women disproportionately.[76] Other vulnerable groups include agricultural workers, migrant workers and the landless. Furthermore, the COVID-19 pandemic has exacerbated the population?s vulnerabilities and stressed household resilience as poverty increases.[77]

38. A problem and solutions tree developed during the project preparation phase, showing climate and non-climate drivers, is shown below.

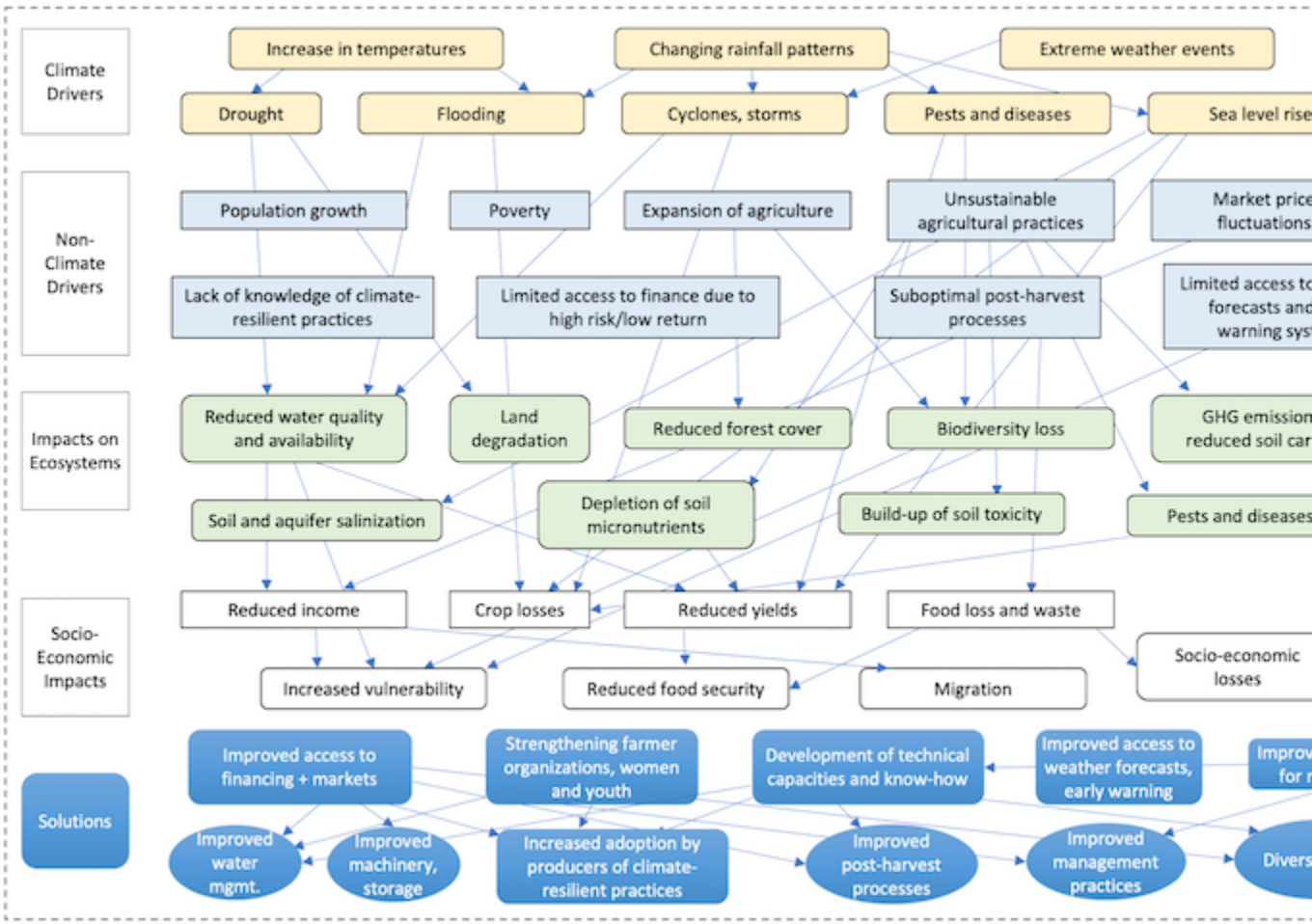


Figure 5: Problem and solution tree for rice production under climate and non-climate drivers

Adaptation options in rice landscapes

39. Considerable investments in adaptation strategies by both public and private sector are needed to alleviate the adverse effects of climate change on food security and livelihoods in rice landscapes.[78] There are strong risks of maladaptation through, for example, increased aquifer extraction for irrigation to combat water and heat stress, especially during drought periods, and excessive use of agrochemicals to counter yield loss, pests, and diseases. A range of proven management options and technologies are available for delivering adaptation benefits in rice landscapes, including best-practice solutions under the Sustainable Rice Platform (SRP) Standard for Sustainable Rice Cultivation. However, further support and financing is needed to support their adoption. In addition, adaptation planning at the landscape level is needed to avoid maladaptation or leakage (displacing negative impacts elsewhere). Also, adaptation measures are highly context-specific and need to be tailored to the climate and socio-economic conditions of a landscape. Diversification away from rice (e.g., transition to new crops such as pulses and oilseeds) may also be an adaptation option, especially in areas where rice farming becomes limited due to drought and saltwater intrusion.

40. The proven technical options for Climate Smart Agriculture (CSA)[79] in rice landscapes ? which the financing instruments to be developed by this project may support ? involve not only rice but also the other crops in the landscape that are associated with the farming systems and livelihood systems of rice farmers and/or which affect the resilience of the populations living in the landscapes.[80] These options, accompanied by the necessary technical assistance and increased access to agricultural extension services, have the potential not only to build resilience of rice landscapes and associated value chains, but also to enhance incomes and livelihoods of local farmers, in particular of women and vulnerable social groups. Options for CSA include:

- **Climate-resilient/smart crop production** may include the use of quality seeds and planting materials of well-adapted varieties; the cultivation of diverse suites of crop species and varieties in associations and/or rotations in order to spread risk (for example rice-soybean/mung bean); the use of integrated pest management practices to avoid maladaptive responses to climate change-related pests and diseases.
- The implementation of **conservation agriculture** (in particular, cover crops and no/low tillage) and the adoption of **sustainable mechanization** to maintain healthy soils and manage water efficiently, thereby maintaining the resilience of agroecosystem functions.
- **Integrated production systems**, which use some outputs (e.g., by-products) and services of one production component as inputs to another within the farm unit (and which may include for example agroforestry, integrated crop-livestock, rice-fish, and food-energy systems), can contribute to resilience by increasing farmers? self-sufficiency in the face of climate-related interruptions to input supply chains, as well as diversifying their on-farm livelihood support options.
- **Water management for CSA** may include for example on-farm water storage and water harvesting, groundwater development, modernisation of irrigation infrastructure, development of climate change-resilient crops, dam construction and improved reservoir capacity, wetland restoration and the climate proofing of irrigation and drainage infrastructure. Investments in irrigation (expansion or efficiency improvements) should always be subject to catchment level water accounting and governance frameworks to avoid unintentional impacts on overall water withdrawal and equity of distribution.
- **Sustainable soil and land management for CSA** may focus on measures for the control of soil erosion, given potential increases in erosive pressures from rain and wind under conditions of climate change; and the maintenance of soil organic carbon and soil nutrients to promote soil health, resilience, and water retention capacity. Soil and water quality testing may be required to improve nutrient and water management. In addition, risk mitigation measures may be put in place related to heavy metals in soils (a key requirement of SRP).

? **Support to the insertion of farmers into green value chains** that are resilient to potential disruption from climate change impacts and offer outlets for the products of CSA.

41. Other suggested adaptation measures, specifically for rice, include crop insurance, rainwater harvesting, laser land levelling, the development of rice cultivars that are tolerant to stresses such as drought and submergence, and building embankments to protect rice farms from floods. [81] Additionally, Alternate Wetting and Drying (AWD) has been shown to generate multiple benefits related to reducing water use (adaptation where water is scarce, subject to catchment level water accounting and governance), methane emission reduction (mitigation), and increasing productivity and contributing to food security.[82] Dry-seeding is another option, which uses 33% less irrigation water compared with production in puddled fields and lowers production costs by as much as USD 125 per ha. With the decreasing availability of labour and water, many farmers in irrigated rice systems have shifted to the dry-seeding of rice with zero-tillage.[83] System of Rice Intensification (SRI)[84] has been applied by farmers whose rice fields are small and not accessible to secure water resources. SRI provides numerous benefits to farmers as it requires fewer seeds and less water while achieving higher yields. However, it also requires high labour costs for transplanting rice seedlings.[85]

42. Enhancing access to early warning systems, better prediction/forecasting, and adjustment in planting calendar can also be effective adaptation measures.[86] In some areas, farmers have constructed wells to pump groundwater. The access to agricultural machineries, including tractors, hand-tractors, combined harvester, or threshing machines, also increases farmers? adaptive capacity and resilience.[87] Lightweight machinery, in particular, can benefit women and older farmers.

43. In line with these options, Cambodia?s updated NDC includes adaptation actions such as the development of rice crops for increased production, improved quality and safety; harvesting and post harvesting technique and agrobusiness enhancement; as well as improvement of support services and capacity building to crop production resilient to climate change.[88] Viet Nam?s updated NDC includes measures such as replacing long-duration rice varieties with short-duration ones, increasing areas with mid-season water drainage and alternating wet and dry irrigation techniques, and increasing areas with integrated crop management (ICM) or areas with the ?Three Reductions, Three Gains (3R3G)?[89] and the ?One Must Do, Five Reductions (1M5R)?[90].[91] Reducing GHG emissions from rice production is also targeted in Viet Nam?s National Climate Change Strategy for the period to 2050[92] by applying SRI and other sustainable rice cultivation practices. Bangladesh?s updated NDC commits to scaling up Alternate Wetting and Drying (AWD) in at least 20% of rice production by 2030.

44. Furthermore, a report by Earth Security Group (2019) published in collaboration with SRP, WBCSD and the United Nations Capital Development Fund (UNCDF) points out that promoting investment in the milling sector and replacing obsolete processing units could significantly reduce postharvest losses, which are frequently as high as 30%. In Cambodia, upgrading the processing sector led to a rapid rise in production and exports of milled rice between 2011 and 2015.[93]

45. Finally, access to credit and services, in particular for women and vulnerable social groups, along with secure land tenure, are important elements in strengthening resilience of smallholder farmers. Ensuring that financing for sustainable and climate-resilient agriculture reaches rural communities is fundamental to a just rural transition that addresses inequalities, transforms the food system to work for people, nature and the climate, and ensures inclusiveness and participation.[94]

46. Table 1 below details how the specific adaptation solutions that may be supported by the Finance Facility respond to the predicted impacts of climate change on rice production and farming/livelihood systems, as well as related SRP themes/performance indicators.

Table 1: Climate hazards, their impacts on rice production and livelihoods, and related adaptation options that may be supported through the project

Climate Hazards	Impacts on rice production / livelihoods	Adaptation Option	Related SRP Theme/ Performance Indicator
1. Increase in frequency and extremity of flood events	Crop losses	Flood tolerant varieties	Pre-planting, pure seed quality; Productivity/grain yield
		Climate proofing of irrigation and drainage infrastructure	Water use
		Wetland restoration	Water use
	Harvest and post-harvest losses, impacts across supply chain	Improvements in storage, climate-resilient infrastructure, processing capacity	Harvest and post-harvest
2. Increased periods of drought	Reduced yields, crop failure	Drought-tolerant or short-duration rice varieties	Pre-planting, pure seed quality; Productivity/grain yield
		On-farm water storage and water harvesting, groundwater development, modernisation of irrigation infrastructure, dam construction and improved reservoir capacity accompanied by improved water management, catchment-level water accounting	Water use
		Improved access to weather forecasts; Timing of harvest	Harvest and post-harvest
3. Increased temperatures, extreme heat	Reduced yields, crop failure	Promote diversified crop production, including crop substitution	Farm management; Productivity/grain yield
		Heat-tolerant rice varieties, short-cycle varieties, high yield varieties[95]	Pre-planting, pure seed quality
		Optimizing crop calendars	Farm management
4. Sea level rise, increased salinity levels	Reduced yields, crop failure	Saline-tolerant rice varieties or other non-rice crops	Pre-planting, pure seed quality; Productivity/grain yield
		Increased preparedness, access to weather forecasts	Pre-planting, farm management
5. Combination of all the above climate risks/ hazards	Combination of all the above climate change impacts	Integrated production systems (agroforestry, rice-fish, trees on farm, etc.)	Farm management, nutrient management; Productivity/grain yield
		Conservation agriculture, climate-smart agriculture, organic fertilizer use	Nutrient management

Climate Hazards	Impacts on rice production / livelihoods	Adaptation Option	Related SRP Theme/ Performance Indicator
		Integrated pest management, crop rotations, bio-pesticides, pheromone traps	Integrated pest management, health and safety
		Use of quality seeds and planting materials that are climate adapted and with available market.	Pre-planting; Productivity/grain yield
		Sustainable soil and land management to control soil erosion and increase soil nutrients and soil organic carbon	Nutrient management
		Site-specific nutrient management	Nutrient management
		Improved residue / waste management	Nutrient management; Harvest and post-harvest
		Alternate Wetting and Drying (AWD), System of Rice Intensification (SRI) where appropriate	Productivity/grain yield; Water use
		Laser land levelling and other Good Agricultural Practices	Pre-planting
		Diversification away from rice where rice farming becomes limited	Farm management
		Improved access to post-harvest services and infrastructure (drying, storage, milling)	Harvest and post-harvest
		Increased access to credit, in particular for women and youth	Access to capital
		Insurance against crop losses	Access to capital
		Support the insertion of farmers into green value chains	Farm management
		Empowerment and enhance capacities of women and youth	Youth engagement; Women empowerment
		Sustainable mechanization to improve production and reduce drudgery, in particular for women	Harvest and post-harvest; Women empowerment
		Strengthen farmer organization and capacities to enhance adaptive capacity	Farm management, labor rights

Climate Hazards	Impacts on rice production / livelihoods	Adaptation Option	Related SRP Theme/ Performance Indicator
		Strengthen access to services, including weather advisories and early warning systems, in particular for women and vulnerable groups	Women empowerment

47. In the context of this project, it is proposed that ?climate-resilient rice landscapes? refers to landscapes whose actors, livelihoods and ecosystems have the ability to anticipate and prepare for, as well as adapt to, absorb and recover from the impacts of changes in climate and extreme weather.[96] This definition will be further elaborated as part of the project implementation and elaboration of adaptation metrics.

Environmental impacts

48. In addition to being vulnerable to climate change impacts, rice production is also having significant impact on the environment. As explained above, rice uses 40% of all irrigation **water** globally. Furthermore, the overuse of **agrochemicals** leads to pollution of land and waterways as well as greenhouse gas emissions. This has led, in some instances, to pesticide residue levels that exceeded phytosanitary standards required by certain markets such as USA and Canada.[97] The **expansion of agricultural areas** negatively impacts high-biodiversity areas and can result in deforestation.

49. Finally, flooded rice production systems are a major source of **emissions of methane** (CH_4): under anaerobic condition of submerged soils of flooded rice fields, methane is produced and much of it escapes from the soil into the atmosphere via gas spaces in the rice roots and stems, and the remaining CH_4 bubbles up from the soil and/or diffuses slowly through the soil and overlying flood water. Globally, rice cultivation contributes about 10-14% of total global anthropogenic emissions of methane, which is approximately 80 times more potent as a greenhouse gas (GHG) than CO_2 over a 20-year accounting period. In the ?rice bowl? region of Southeast Asia, rice accounts for 25-33% of methane emissions.[98] Furthermore, carbon emissions also result from the in-field **burning of rice straw** and improper management of residues such as rice straw and husks.[99]

Mitigation co-benefits

50. Many of the above-mentioned adaptation options also contribute to GHG mitigation. Options for mitigating greenhouse gas (GHG) emissions in rice landscapes include (i) integrated nutrient management to reduce fertilizer-related emissions; (ii) improved water management including Alternate Wetting and Drying (AWD) to reduce methane emissions from rice paddies; (iii) sustainable rice straw management to reduce emissions from agricultural burning; (iv) improved soil and landscape management to sequester carbon in agro-ecosystems; (v) use of renewable energies to reduce CO_2 emissions along the value chains (including, among others, the use of rice husks as biofuel); and (vi) reducing emissions from land use change associated with unsustainable crop production in the broader landscape.[100],[101] Adopting shorter-duration, high-yield varieties will also help to reduce emissions per unit of production, and will potentially enable farmers to benefit from future carbon credits for GHG mitigation.[102]

C. COVID-19 impacts, Ukraine crisis and inflation

51. The impact of the COVID-19 pandemic on food systems has exposed the vulnerabilities of supply chains throughout the world. In the Asia region, the slowing global economy has caused widespread job losses, falling incomes, and reduced remittances. The ongoing impacts of the COVID-19 pandemic and related restrictions are worsening the vulnerability of poor communities and has pushed more people into poverty. A recent regional review of socioeconomic, agrifood and nutrition

impacts of the COVID-19 pandemic confirmed that the pandemic has exacerbated loss of income and livelihoods for vulnerable families and their children and that the negative impacts of the pandemic have affected women disproportionately.[103] Furthermore, the COVID-19 pandemic related impacts have exacerbated the population?s vulnerabilities, and this will stress household resilience as poverty is projected to increase. Despite the global economic downturn, agricultural production (including rice) has been relatively resilient. However, supply chains that ensure the flow from producers to consumers have been disrupted by movement restrictions.[104] The pandemic resulted in disruptions across the food system due to shortages in agricultural labour, limited access to farm inputs due to transport disruptions, declining food processing capacity, disruptions to logistics and trade, and reduced food consumption due to fewer face to face social and economic activities.[105] Most governments in the region have responded with a range of social protection measures. These include cash transfers, contributory unemployment insurance schemes or active labour market programmes, provision of food in kind or through vouchers, wage subsidies, and waiver or postponement of utility bills. The proposed project presents an opportunity to directly contribute to a climate-resilient recovery to the COVID-19 pandemic through its investments in capacity and resilience building. By supporting access to financing for sustainable, climate-resilient investments and livelihoods and by strengthening farmer organizations and small and medium enterprises (SMEs), the project is aligned with governments? efforts to invest in COVID-19 recovery.

52. The supply chain disruptions caused by the COVID-19 pandemic are exacerbated by the Russia-Ukraine crisis. Global agricultural commodity prices (including grains and fertilizers) have risen sharply, threatening to push millions into hunger and poverty.[106] While the price of rice has been less heavily affected than that of wheat and maize, the FAO All Rice Price Index shows an increase of 7.2% in July 2022 above its value in July 2021. The high fertilizer prices have led to a decline in affordability levels in rice, which is expected to result in lower input use, lower yields and compromised qualities of yields in the next cropping season. If the reduction of food exports by Ukraine and Russia persists, the number of undernourished people globally could increase by between 8 and 13 million in 2022/23, with the most pronounced increases expected in Asia-Pacific.[107] This situation risks being exacerbated by the droughts and floods that have affected crops (in particular, rice) across the Asia region in 2022.[108]

53. Finally, although inflation pressures remain more moderate in Asia compared to other regions, they have nevertheless led to price increases and tightened financial conditions.[109] This points to the need for additional sources of financing as the costs of production are rising and governments? ability for finance may decrease.

D. Root causes and barriers

54. There is significant potential across Asia to adapt to the above-mentioned climate changes and to sustainably increase rice production, thereby contributing to the resilience of rice farmers? livelihoods and of global food supply. It is estimated that facilitating farmers? access to affordable, higher-quality inputs such as seeds, supporting mechanised harvesting and drying processes, facilitating access to environmentally sound adaptation technologies such as precision irrigation could not only increase resilience, but also raise yields by nearly 400 kg/hectare, raise farmers? profits, and reduce methane emissions from the sector by 70%.[110] However, smallholder farmers face several challenges that hinder the adoption of adaptation measures and technologies.

55. **Farming practices are not always adapted to climate change** (particularly at a large scale, beyond pilot models[111]): Farmers grow a limited number of crops and varieties, which are not always adapted to the changing climate, and hence they face higher risks of crop failure; they lack integrated water management and soil and nutrient management practices, and increasingly use agrochemicals to compensate for yield loss and combat pests and diseases, making soils, water and ecosystems even more vulnerable to climate change. At the same time, they typically face difficulties in securing high-

quality, affordable inputs and services needed to enable them to switch to climate resilient practices (e.g., resilient seed varieties, organic fertilizers, irrigation, machinery, weather/climate information, technical support).

56. Farmers also face weaknesses in value chain infrastructure. Value chains may be vulnerable to interruption by climate change impacts and may fail to offer favourable conditions for the adaptation measures outlined above. **There is limited investment in resilient supply chain infrastructure.** Storage facilities and irrigation systems are often inadequate and vulnerable to climate change impact.[112] Transport infrastructure is also often inadequate and poorly maintained, and vulnerable to damage from climate change: this drives up both the cost of imports and the cost of transporting produce to market (poor road infrastructure also contributes to up to a tenth of rice being lost during transportation due to contamination and spillage[113]). Limited physical capital in crop value chains continues to result in limited facilities for local storage and processing, thereby increasing post-harvest losses and degrading product quality. Without sufficient and appropriate technological improvements in these value chains, increased humidity levels and erratic rainfall patterns are likely to increase post-harvest losses due to spoilage while also increasing food-safety risks.[114]

57. Underlying both of these factors are **farmers? and other rice value chain actors? difficulties in accessing reliable and appropriate finance** that is tailored to their needs and the specificities of CSA. Farmers incur costs for transitioning to climate-resilient practices such as conservation agriculture; hence, they need transition financing to be able to invest in these practices. Given the relatively low productivity and high risks, smallholder rice production within fragmented value chains has not received the same level of global attention, nor attracted similar levels of financial investment, as commodities such as soy and palm oil. Smallholders (in particular women) often lack assets that can be used as collateral for loans: without organized and collateralizable assets or guaranteed income, they cannot easily absorb the costs and risks of adopting new practices and technologies, and diversify their livelihood sources for greater resilience.[115] Farmers, as well as local companies engaged in the value chains have limited access to capital. Loans in the agriculture sector typically have short tenors and high interest rates. The short tenors do not reflect well the farming cycle nor the need for more long-term investments for climate resilience. Additionally, working capital to local SMEs is typically limited in amount. This affects companies? abilities to engage in large scale contract farming arrangements: the highly seasonal nature of rice exacerbates this limitation, as it means that investment in purchasing farmers? crops tends to be required in a highly concentrated peak over the one- or two-month harvesting period.[116]

58. **Land tenure insecurity** is another limiting factor, especially among women and other vulnerable populations including indigenous communities. Farmers with insecure land tenure are less likely to invest in productive farm assets and technologies that would increase resilience and yields. Also, farmers who lack a land title or land certificate are often unable to borrow money from local banks.[117] Finally, the fragmented pattern of landholdings[118] makes the large-scale adoption of measures to enhance climate resilience and improve agronomic practices more difficult: smallholders are price-takers with low bargaining power, limited access to finance, services, infrastructure, and climate-adaptive technologies such as adequate drying equipment and post-harvest storage facilities.

Box 4: Financing gaps, needs and demand identified during PPG

59. The following financing gaps, needs and demand in relation to sustainable, resilient rice landscapes, value chains and livelihoods were identified through initial analysis and stakeholder consultations during project preparation.

60. In Bangladesh, stakeholders identified financial needs for the following, among others: (i) climate database, (ii) stress-prone area mapping, (iii) stress-tolerant varieties and technologies, (iv) assessment of loss and damage, (v) efficient management of irrigation, (vi) drying and storage to reduce post-harvest losses, and (vii) early warning and forecasting system.

61. In Cambodia, initial financing needs identified include increased value addition, branding, upfront investment in machinery and processing facilities, and capital to purchase paddy for stock at the harvest. Market analysis, market access was also highlighted as an important factor, along with the need for technical assistance, farmer extension services, and strengthening agricultural cooperatives and local SMEs.

62. In Viet Nam, key areas of the value chain where such support is likely to be needed include processing/value adding, branding, and packaging, as well as upfront investment in new machinery and inputs, the costs of certification and audits, and systems for traceability and internal control.[119]

63. Across the region, the identified funding gaps in sustainable and resilient rice include: (1) Long-term: Irrigation infrastructure, milling and storage capacity, post-harvest facilities, research and development (R&D); and (2) Short-term: Input finance (fertilizers, crop protection, seeds), crop finance, mechanization services, export / trade finance, and farmer (household) finance.[120] Investments in monitoring systems, management system capacity, and mechanisms for carbon markets are also needed. All these investments would contribute to increasing resilience in some form, such as by improving water availability and management, reducing post-harvest losses, and increasing value chain resilience, improving access to high-quality, climate-resilient seeds and other inputs, access to financing for farmers and farmer groups, and sustainable mechanization to improve production and reduce drudgery, in particular for women.

Barriers

64. This project will focus specifically on addressing the barriers that limit access to the reliable financing needed by women and men to make rice landscapes more resilient to the effects of climate change, as set out below:

65. Barrier 1: Absence of integrated financing mechanism that can leverage public and private investment in climate-resilient rice[121] *(addressed by Component 1)*

66. There is currently no integrated financing mechanism addressing the specific challenges (and opportunities) of rice landscapes and value chains. Thus, there is limited investment and limited engagement of local private sector, banks, and financial institutions in investing in climate-resilient rice. Due to the high-risk nature of rice production and the upfront investment needed to support a transition towards climate-resilient rice, concessionary financing, combined with technical assistance, is needed to leverage public and private investment.

67. Rice has been a priority for many governments, bilateral and multilateral funders. However, it has largely been challenging to finance due to (1) a size mismatch/limited aggregation: investments are either very large (e.g., irrigation) or very small; (2) fragmented, loose value chains and dominance

of informal domestic markets; and (3) relatively low margins. Transaction costs for financial services are high, given that most of the world?s rice is produced in fragmented, low-productivity, high-risk value chains by smallholder producers who lack assets, land tenure security, and access to finance and markets.[122] Also, potential counterparts do not necessarily have credit history and, thus, they are unable to receive loans. Additionally, financial inclusion is weak, i.e., opportunities for certain vulnerable groups to access financial services are often limited, such as for women and the rural poor. And although micro-finance institutions are prevalent in the three target countries, interest rates are often too high for farmers to access this type of finance and repayment cycles are not aligned with agricultural seasons.[123] A recent study in Cambodia pointed to frequent over-indebtedness of borrowing households in Cambodia, often pressuring the poorest households to sell their land. The study recommended linking lending more closely to financial literacy and promoting savings more strongly.[124] Another report published in September 2022 noted that microfinance loans in rural Cambodia are leading to an over-indebtedness emergency that undermines borrowers? long-term coping and adaptive capacity in a changing climate.[125] The report calls for several transformations to pull Cambodians out of the microfinance debt trap, including debt forgiveness and redirecting the international development community?s efforts away from microfinance institutions.

68. De-risking is essential to financing a transformation in the rice sector towards climate resilience, given relatively low profit margins and very high risks. However, working capital needs in rice supply chains are small relative to the deal size requirements and timeframes of development-oriented funders such as Development Finance Institutions (DFIs), impact funds, and international banks. In general, DFIs, including providers of concessionary capital, are not well-positioned to efficiently engage funding volumes less than USD 10 million. Many commercial financial investors have limits on the percentage that they can represent in a transaction or investment structure (e.g., minimum USD 10 million commitment representing no more than 20% of the overall funding volume). If sustainable rice finance projects are to engage more commercial investors and DFIs, including multilateral funding pools such as the Green Climate Fund, total volume should be at least a few hundred million USD. However, this must be aligned with on-the-ground funding needs, which are typically in the hundreds of thousands to tens of millions. Given this size mismatch, an appropriate approach should consider *multiple countries and allow for engagement at different points in the value chain* and with a variety of counterparties.[126]

69. Related to this, a report by Earth Security Group (2019) noted the following barriers to scaling private sector finance for agriculture, including the high-risk profile of the agriculture sector, the seasonal nature of farming, the specialised knowledge required to assess investment opportunities, and the low appetite to lend to smallholder farmers due to a lack of collateral and established credit histories of smallholder farmers. Furthermore, the report identified the following barriers to financing of sustainable rice:

- ? Barrier 1: The **absence of a financial infrastructure** to service millions of rice smallholders who lack access to services.
- ? Barrier 2: The **upfront investment needed** for companies, suppliers, and farmers to switch to climate-smart production methods.
- ? Barrier 3: The **lack of public financing for governments to attract private sector investment** through blended finance instruments.[127]

70. Barrier 2: Limited financial and technical capacities among local counterparts and beneficiaries to invest effectively in climate resilience *(addressed by Component 2)*

71. The lack of tailored financial products in climate-resilient rice is at least in part due to the **lack of agricultural expertise and awareness of adaptation options within financial institutions**.[128] A study by the National Council for Sustainable Development (NCSD) in Cambodia highlighted several new business opportunities for the private sector to invest in climate-smart agriculture practices, including ICT service provision (such as remote sensing information on yields) to

climate proofing inputs (resilient seeds, organic fertilizer), risk coverage services (crop insurance, micro-credit through cooperatives), and sustainable farming technologies (e.g., climate-smart agriculture, sustainable mechanization).[129] However, there is limited knowledge and capacities among local financing institutions and counterparts to effectively invest in such practices. Although various value chain actors are aware of climatic trends, they are generally unaware of specific actions, investments, or approaches that would efficiently contribute to improved resilience. The NCSD study notes that Cambodian banks are generally unaware of the challenges and opportunities associated with a low-carbon and climate-resilient development. Similar barriers exist in other rice-growing countries of Asia.[130]

72. A report on Promoting Private Sector Contributions to the Climate Change Response in Cambodia (2016) estimated that USD 185 million was invested by private actors in climate-related projects over the period 2009-2011. However, most of these investments have so far been mitigation related. The identification of adaptation measures supported by the private sector remains a challenge.[131] Building a strong pipeline of adaptation investments with identified counterparts and value chain partners is needed to increase private sector investment in adaptation in rice landscapes. This needs to be accompanied by technical assistance to ensure that quality of supplies matches with market demand, the investments are sound and adapted to the local context and contribute to adaptation at the landscape level.

73. Additionally, there are **limited capacities among smallholder farmers** for accessing funds and markets. This is in part due to the high fragmentation of smallholder production and value chains, as well as low financial literacy and business skills among farmers. The low rate of farmer organization and the limited capacity of existing farmer groups/associations further contributes to this.[132] Moreover, there is limited coordination between actors across the value chain.

74. Technical assistance is needed to help strengthen farmer organizations and enhance capacities around implementation of climate-resilient practices, financial literacy, as well as the use of standards such as SRP. Adaptation in agriculture is highly context-specific; technical assistance, thus, needs to be adapted to the specific landscape. In many rice-production landscapes and upstream value chains, local capacity (e.g., cooperatives, agri-SMEs, off-takers) needs to be cultivated so that sustainable rice finance projects have effective implementers and bankable counterparties. De-risking strategies (e.g., guarantees by governments or global donors) need to be paired with strong upstream value propositions that deliver increased productivity and profitability. Smallholder rice growers need multiple sources of support (e.g., access to inputs and services; secure land tenure; technical advising; market linkages; financial inclusion) to strengthen their position and participation within rice value chains.[133]

75. In Bangladesh, in its 2019-20 Agricultural and Rural Credit Policy, the Bangladesh Bank instructed commercial banks to focus on climate-stressed areas such as waterlogging, salinity, and drought prone areas. However, consultations with relevant stakeholders during the GEF-7 LDCF ?Building Climate Resilient Livelihoods in Vulnerable Landscapes in Bangladesh (BCRL)? project development revealed that while the Bangladesh Bank has incorporated climate finance in its policies, it is **not fully mainstreamed nor is monitored systematically**. One challenge is that, typically, **commercial banks have limited technical knowledge on climate resilient options** and their risk profile, both at the household and aggregator (producer group, entrepreneurs and MSMEs) levels. The micro, small and medium enterprises (MSMEs) finance gap is around 20% of the country?s GDP.[134],[135]

76. In Cambodia, there is currently a limited volume and selection of financial products to support agricultural investments, due largely to a **lack of knowledge in the financial sector** about how to identify, assess, and price risk factors in the agricultural sector. Although different technologies and practices in agricultural value chains have very different risk-reward profiles, e.g., related to climate

resilience, **lenders typically assume and price in uniformly high risk**, differentiating instead on other factors (e.g., borrower characteristics, type of securitization). Therefore, lenders typically limit their exposure to the agricultural sector and charge high interest rates, both of which limit support especially to smallholders and small and medium enterprises (SMEs). This means that the financial sector currently poses an unrealized potential to support technologies and practices with desirable risk-reward profiles in the agricultural sector.[136]

77. In Viet Nam, weak financial capabilities of commercial banks and lack of capacity of investors have also been highlighted as one of the challenges in the implementation of climate action in Viet Nam.[137]

78. Barrier 3: Lack of framework to monitor and share knowledge on the impacts of a climate-resilient rice financing mechanism *(addressed by Component 3)*

79. While detailed indicator frameworks have been developed to measure and monitor adaptation, there is a lack of specific indicators and monitoring framework to measure the impacts of a financing mechanism that invests in sustainable and climate-resilient rice. The Sustainable Rice Platform (SRP) and the Climate Smart Agriculture (CSA) framework[138] provide a good basis upon which to build. However, this needs to be adapted to the needs of an integrated and blended financing mechanism in line with donors? and public and private investors? requirements. Finally, knowledge on successful approaches in financing adaptation in rice landscapes needs to be shared more widely to support replication and crowding in of additional investments.

2) Baseline scenario and any associated baseline projects

80. The baseline scenario and associated baseline projects are described below. In the baseline, governments have established relevant policies, plans and programmes in support of climate change adaptation in the agriculture sector. Several investments by government, private sector, international development partners are promoting climate-resilient and sustainable approaches in agriculture (including rice) landscapes in the target countries and in the region. All three countries have strong government support policies for rice production. However, there is still a gap in targeted financing for adaptation in rice landscapes and value chains that would catalyse and accelerate investments in climate resilience. The project will work closely with these initiatives and stakeholders to build on their achievements and leverage or amplify their investments. Please also refer to *Section 6.b Coordination with other projects* for additional relevant projects.

A. Government policies and programmes

Box 5: Bangladesh policies and programmes

81. The Government of Bangladesh has demonstrated its commitment to undertake both adaptation and mitigation efforts as part of its plan for sustainable development. Every year the Government channels resources for significant investment in projects/programs for ensuring climate resilience. It currently spends USD 1 billion a year, around 6-7% of its annual budget, on climate change adaptation (CCA). However, the World Bank estimates that the country would need USD 5.7 billion as adaptation finance by 2050, which is more than 5 times higher than the current expenditure for CCA.[139]

82. Bangladesh submitted the National Adaptation Programme of Action (NAPA) in 2005 (updated in 2009). In 2009, the country formulated the Bangladesh Climate Change Strategy and Action Plan (BCCSAP).[140] The formulation of the National Adaptation Plan (NAP) Process was initiated in 2019 and is currently ongoing.[141] Four major sectors have been prioritized for Bangladesh NAP, including 1) Agriculture (including crops, forestry, fisheries and livestock), livelihood and food security, 2) Water resources, 3) Drought and coastal zones, and 4) Urban areas.

83. To finance the implementation of projects under the BCCSAP, Bangladesh recently established two innovative funds: the **Bangladesh Climate Change Trust Fund (BCCTF)** from the government?s own budget and the **Bangladesh Climate Change Resilient Fund (BCCRF)** with the support of development partners.[142] Under the BCCTF, a total of 282 projects of over USD 200 million have been approved so far, such as for building cyclone resilient houses, afforestation, excavation/re-excavation of canals, introduction and dissemination of stress tolerant crop varieties and seeds, construction of embankments and river bank protective work, waste management and drainage infrastructure, and installation of solar panels. Under the BCCRF, over USD 188 million in grant funds are channelled to millions of Bangladeshis to build their resilience to the effects of climate change.[143]

84. In 2020 Bangladesh assumed the presidency of the 48-nation Climate Vulnerable Forum (CVF) and the Vulnerable Twenty (V20) Group of Finance Ministers. As a first CVF plan, the draft ?**Mujib Climate Prosperity Plan**?, aims at mobilizing financing, primarily through international cooperation, for implementing climate resilience initiatives such as an expansion of locally-led adaptation, the establishment of carbon market regime, Bangladesh Delta Plan 2100 resilience bonds, climate-resilient and nature-based agricultural and fisheries development, climate resilient well-being programs and accelerated digital revolution, training and skills development.

85. The **National Agriculture Policy (2018)** gives importance to investments in diverse areas including quality seed production, fertilizer and irrigation management, farm mechanization, agriculture cooperative and marketing, women empowerment in agriculture, natural resource management, and use of information and communication technology.

86. ***Sustainable Finance.*** In recognition of the access to finance challenges, Bangladesh has set lending norms and targets for its agriculture and rural sector, and these targets have been largely met or exceeded in recent years.[144] In 2020, **Bangladesh Bank** (the country?s central bank) formulated a **Sustainable Finance Policy** for Banks and Financial Institutions. The policy is intended to guide banks and financial institutions (FIs) in their participation and contribution in the implementation of the NDC and SDGs. From January 2016 onwards the minimum target of direct green finance was set at 5% of the total funded loan disbursement/investment for all banks and FIs.[145] The Sustainable Finance Policy covers sustainable agriculture, and there are provisions for crop irrigation, mechanization, and other facilities to improve rice productions ? low-cost funding arrangements exist at the rate of 4-6%. Stakeholders noted that there is high interest in these types of investments among banks and financial institutions. In its **Agriculture and Rural Credit Policy**, Bangladesh Bank sets agricultural credit targets for each fiscal year and has recently added a focus on climate-stressed areas.[146] The policy also promotes the cultivation of climate-resilient crops such as stress-tolerant crops and vegetables.

87. ***Rice policies.*** Rice has historically received most of Bangladesh?s research, extension, and advisory systems? focus, and while there has been some shift towards livestock, fisheries, and other crops, rice continues to dominate.[147] Rice cultivation in Bangladesh is incentivized through public procurement, cash subsidies and high import tariffs.[148] Since the legalization of rice imports by the

Box 6: Cambodia policies and programmes

89. In 2006, Cambodia developed its National Adaptation Programme of Action to Climate Change (NAPA).[152] The Cambodia Climate Change Strategic Plan (CCCSP) 2014-2023 and sectoral Climate Change Action Plans (CCAPs) were developed in 2014. The National Adaptation Plan Process in Cambodia was published in 2017.[153] The plan includes a chapter on climate financing and the financial gap for adaptation.

90. Also in 2017, Cambodia formulated a **National Adaptation Plan Financing Framework and Implementation Plan**.[154] The plan identified a financing gap for the Ministry of Agriculture, Forestry and Fisheries CCAP Actions of USD 187.55 million or 99.8% of the total required budget. Actions include, among others:

? Promoting post-harvest technology for cereal crop and tuber crop, conducting research and transferring appropriate post-harvest technology.

? Promoting research work on appropriate climate smart agriculture technology/technique to adapt and mitigate climate change.

? Developing crop varieties suitable to the agroecological zones (AEZ) resilient to climate change.

? Strengthening capacity of agricultural and agro industry development entrepreneur and the agricultural cooperative in low carbon production

? Promoting marginalized groups and women participation to climate change adaptation and mitigation strategy.[155],[156]

91. In 2015, the **Cambodian Agriculture Cooperative Insurance Company** (CACIC) announced the start of an agriculture micro-insurance service to help rice farmers better respond to climate change. Participating farmers pay an insurance fee (approx. USD 10/ha/season), and in return, they receive consultation on climate resilient farming methods and an insurance payout when their crop is damaged by floods or droughts. The initiative is funded by the Netherlands? Achmea private foundation.[157]

92. Cambodia?s Ministry of Agriculture, Forestry, and Fisheries (MAFF) has established a **Public-Private Partnership (PPP) framework** that provides a platform to support the private sector engagement in agribusiness value chains, capacity building for producers and to strengthen linkages between producers and buyers. Furthermore, a sub-decree has been drafted to establish an **Agriculture Cooperative Development Fund**.[158]

93. In the agriculture sector, **carbon finance** is mainly used in projects including rice miller using rice husk gasification or cogeneration as an alternative to diesel or wood fuel or charcoal, or biogas at industrial scale reducing methane emissions from pig manure. Most of the projects were developed under the Clean Development Mechanism (CDM) and were started before the CDM crisis (price dropped from EUR 15 /tCO2e in 2011 to EUR 0.5/tCO2e in 2014).[159] The market mechanisms under Article 6 of the Paris Agreement provide a renewed opportunity for carbon markets in agriculture, including rice. Cambodia?s Long-Tong Term Strategy for Carbon Neutrality (2021)[160] includes mitigation actions in the agriculture sector, including major reductions in the methane-intensive rice production. The Strategy points out that actions such as reducing methane-intensive rice cultivars, direct seeding practices, alternate wetting and drying practices, and the promotion of organic fertilizer and deep fertilizer technology have significant adaptation co-benefits.

94. ***Rice policies.*** Cambodia?s **Agricultural Strategic Development Plan** (2019-2023) and the National Agriculture Development Policy (2022-2030) aim to modernize the agriculture sector to become more competitive and resilient to climate change. The Government of Cambodia has chosen milled rice as a priority export item and promotes paddy rice production and export of milled rice. This should be done, among others, by improving productivity and crop intensification, and by creating new financial instruments and leverage mechanism for financing.[161] Cambodia established milled rice standards for both white and fragrant rice in 2013. These standards, promulgated by Royal Decree, have instituted quality assurances that have led to international recognition and confidence from global buyers.[162] In 2021, the Cambodian Rice Federation (CRF) requested the Ministry of Economy and Finance to support the rice sector through tax incentives. It sought income tax exemption for rice exporters and rice mills for five years.[163]

Box 7: Viet Nam policies and programmes

98. Viet Nam?s policies related to climate change adaptation include, among others:

? Resolution on active response to climate change, strengthening natural resources management and environmental protection (2013), which highlights the importance of increasing adaptive capacity of production systems, and food security under climate change as a main challenge that should be on the prioritised policy intervention list.

? Target program to respond to climate change and Green Growth for the period of 2016-2020.

? National Climate Change Strategy (NCCS) for the period 2050.

? Supporting Program to respond to climate change (SPR-CC) for the period of 2016-2020.

? Resolution on Sustainable Development of the Mekong River delta adapting to climate change.

? Provinces and cities have updated their action plans to respond to climate change as well as identify and carry out their plans for PA implementation and the national action plan on green growth for the period of 2016-2020.[168]

? Mekong Delta Regional Master Plan 2022, which provides spatial orientation and nature and climate change adaptive development of key sectors and areas in the region in line with the Government Resolution 120/NQ-CP. Among the priorities identified are (1) the development of the Mekong Delta towards sustainability, green growth and climate change adaptation, and protection of natural ecosystems; (2) to proactively cope with flood, inundation, brackish water, saline water, and (3) rethinking regarding food security, i.e. from moving from rice-based agriculture to more diverse agriculture with aquaculture ? fruit ? rice production, designed according to the water and soil quality of each area and according to market needs.[169]

99. MARD has developed an action plan in response to climate change that includes 54 tasks, requiring a total of VND 402 billion in funding. So far, only 21 tasks have been implemented with a total funding of VND 47 billion. One of the adaptation measures employed by the agricultural sector is the creation and use of hybrid varieties of crops that have the potential to adapt to changing climatic conditions.[170] Overall, only 30-35% of the action programmes and plans identified in the Third National Communication can be funded from Government budgets (at the central and local level) while the remainder will need to be provided via other funding avenues, such as overseas development assistance or the private sector. The country encourages private sector investments in adaptation.[171] MARD has also developed and approved the action plan for green growth of agriculture sector for 2021-2030, which promotes green and sustainable agriculture development.

100. The National Adaptation Plan (NAP) process is currently ongoing (started in 2021) with funding from the Green Climate Fund (GCF) through UNDP to support five ministries including the Ministry of Natural Resources and Environment (MONRE), Ministry of Agricultural and Rural Development (MARD), Ministry of Planning and Investment (MPI), Ministry of Health (MoH) and Ministry of Transport (MoT). Under the FAO/UNDP Integrating Agriculture in National Adaptation Plans (NAP-Ag) project, an M&E system and indicators for adaptation in the agriculture sectors were piloted in five provinces, namely Lao Cai, Nam Dinh, Quang Binh, Kon Tum and Soc Trang. A synthesis report that provides recommendations on the data collection and analysis of adaptation indicators was released. The guidelines for the implementation of the M&E system for the NAP for the agriculture sectors and its integration into the current M&E system of MARD were also finalized.[172]

101. Viet Nam?s Action Plan Framework for Adaptation and Mitigation of Climate Change of the Agriculture and Rural Development Sector Period 2008-2020[173], endorsed by the Minister of Agriculture and Rural Development in 2008 stated two objectives related to rice security, (i) Ensuring the stable agriculture production and food security with the stable area of 3.8 million ha of two seasonal rice crops; and (ii) Ensuring safety of dyke and infrastructure systems to meet requirements in disaster prevention and mitigation.[174]

102. In February 2022, the Prime Minister issued the Decision on ?Approval for the planning scheme for development of the Mekong Delta region for the 2021 ? 2030 period with vision towards 2050?. The document aims to orient the Mekong Delta region towards the green and sustainable growth. It aims to make a transition in the agricultural production structure to adapt to natural condition changes in three ecological sub-regions, (1) the freshwater ecological zone, (2) the saltwater-brackish water zone, and (3) the freshwater-brackish water transitional zone. In terms of agricultural production, it aims to develop the three key strategic products of fishery, fruit, and rice products towards increasing the

B. Private sector / civil society

Sustainable Rice Platform (SRP)

110. The Sustainable Rice Platform (SRP) is a global multi-stakeholder alliance of over 100 institutional members from public, private, research, civil society, and the financial sector. SRP works with partners to transform the global rice sector by improving smallholder livelihoods, reducing the social, environmental and climate footprint of rice production; and by offering the global rice market an assured supply of sustainably produced rice. SRP aims to reach 10 million rice farmers by 2030 and have them adopt good practices in compliance with the SRP Standard. Since 2011, the Sustainable Rice Platform (SRP) has developed sustainable production standards, performance indicators, incentive mechanisms, and outreach initiatives to boost wide-scale adoption of sustainable best practices throughout rice value chains. Over the past decade, registered SRP projects have impacted over 400,000 farmers in Asia, Africa, Europe, and the Americas.[185] The SRP Standard for Sustainable Rice Cultivation is considered an important mechanism to leverage financing for sustainable rice. SRP provides an agreed standard and metrics based on which financing mechanisms can be developed.

111. In Cambodia, a Memorandum of Agreement was signed in 2021 among five organizations, including the General Directorate of Agriculture (GDA), the Wildlife Conservation Society (WCS), Swisscontact, CIRAD[186], and the Cambodia Rice Federation (CRF) to initiate the formation of the SRP Cambodia National Chapter. A strategic roadmap consultation workshop was held in August 2022, and the SRP Cambodia National Chapter will be formally established in December 2022. In Viet Nam, an initial SRP multi-stakeholder working group has been established comprising IPSARD, MARD?s Department for Cooperatives and Rural Development (DCRD), Rikolto, GIZ, Oxfam and Loc Troi Group. National interpretation guidelines are being developed for both Cambodia and Viet Nam.[187]

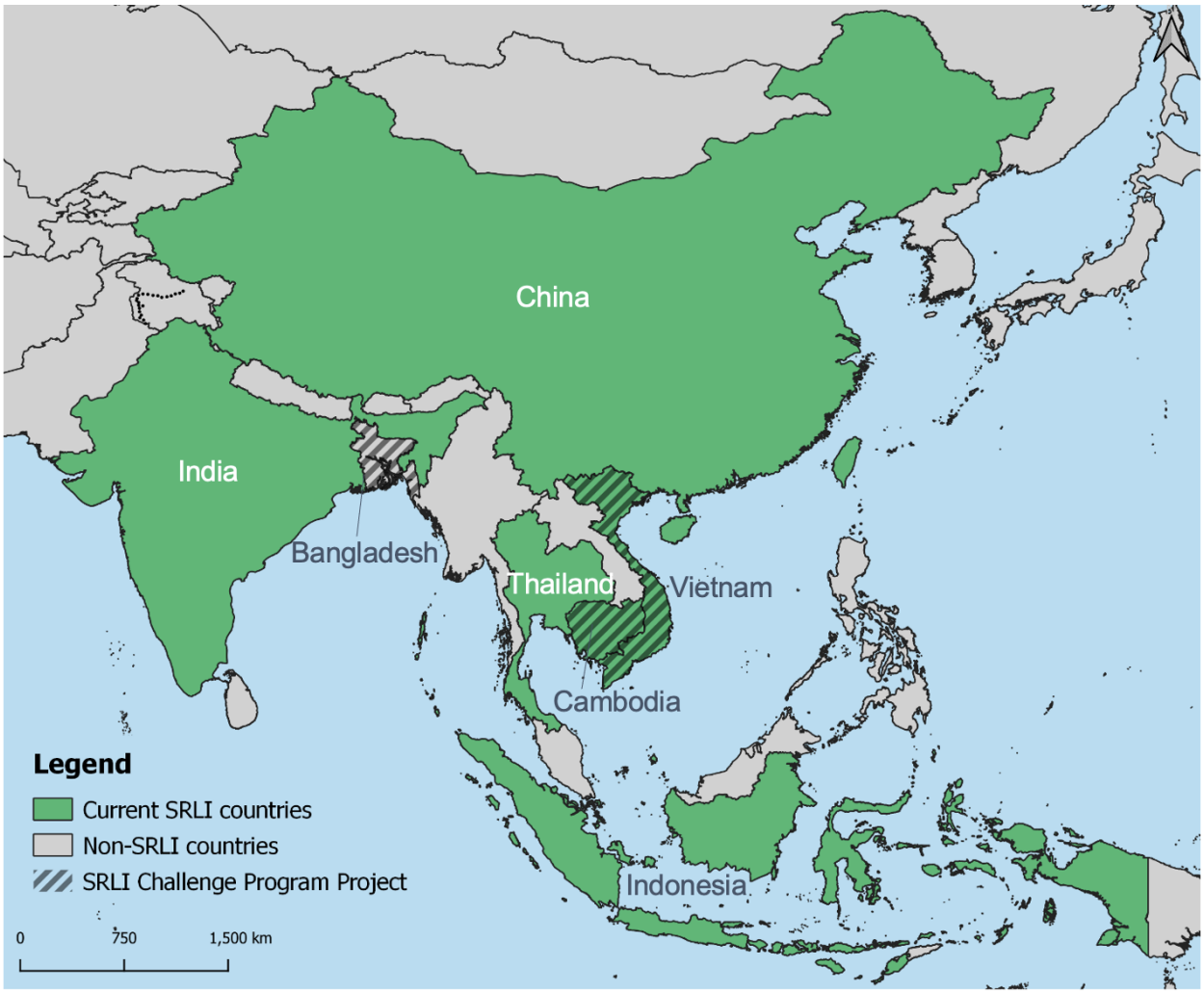
112. SRP delivers training courses through selected institutions, known as Authorized Training Providers, to build a cadre of persons qualified to conduct farmer outreach, training, and verification activities in support of SRP objectives (the SRP Authorized Trainers). These individuals help to further scale capacity building on-the-ground.[188] In the last few years, SRP and its partners have invested considerably in generating standard training modules. There are four SRP Authorized Training Providers, namely Akademie f?r Internationale Zusammenarbeit (AIZ), GLOBALG.A.P., Preferred By Nature and IRRI. These training providers have trained and certified several hundred SRP trainers in the past two years. SRP is actively positioning the SRP brand and increase its presence in the European market. SRP-Verified rice is now available in supermarkets in Belgium, Denmark, Germany, Finland, Italy, the Netherlands, and Sweden.[189]

113. Sustainability standards such as SRP allow private sector actors to ensure and demonstrate that the value chains in which they participate are in compliance with corporate sustainability commitments, they allow consumers to have confidence that products are sustainably produced, and they allow complying farmers to access reliable and, in some cases, preferential markets for their produce. *The SRP will play a key role in the financial mechanism to be established under the proposed project, in particular by providing technical assistance and a recognized validation framework comprising the SRP Standard and Performance Indicators, that can support a transformation to sustainable, climate-resilient rice farming practices and landscapes.*

Sustainable Rice Landscapes Initiative (SRLI)

114. In 2018, SRP, UN Environment Programme, FAO, GIZ (German Agency for International Cooperation), World Business Council for Sustainable Development (WBCSD) and the International Rice Research Institute (IRRI) established the **Sustainable Rice Landscapes Initiative (SRLI)**. The Cambodia GEF-7 LDCF and Viet Nam GEF-7 Food Systems, Land Use and Restoration (FOLUR) projects are part of this initiative. Launched in 2018, during the 6th GEF Assembly meeting in Danang,

Viet Nam, the SRLI has created a unique consortium of public, private and civil society partners, bringing together technological, ecological, policy and market-led approaches to the challenges of rice sustainability. SRLI has established a strong organizational development plan to accelerate landscape solutions for rice, focused on global advocacy, financing, and private sector engagement. *The proposed project will directly collaborate with the projects developed under the SRLI umbrella and augment their impact by enhancing access to financing for sustainable rice.*



The designations employed and the presentation of material in this map do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Figure 6: Map showing target countries of GEF-7 SRLI projects and of the proposed Challenge Fund for Adaptation Innovation project

115. In 2021, the SRLI organized several **roundtable discussions** with financial institutions and rice value chain actors in India, Pakistan, Thailand, Viet Nam, and West African countries. The roundtable organized in Viet Nam, for example, concluded that finance must be combined with technical assistance at the farm level (such as for reducing chemical use) and that climate change is an increasingly important consideration amongst all actors in the rice value chain. Further, the roundtable participants noted that commercial banks require public-private partnerships for financing to enable their initial investments to reach the de-risking requirements imposed by central banks. Blended finance is important to help overcome initial risk barriers that prevent the crowding in of private capital.[190] The roundtable discussions provided useful insights for the design of the proposed project.

Box 8: Sustainable Rice Finance paper[191]

116. Under the SRLI initiative, a report was produced on Sustainable Rice Finance, which analysed potential blended finance structures for sustainable rice finance and identified viable finance structures for rice. Based on consultations with several experts in rice value chains in major rice-producing regions, the report highlighted the following themes and recommendations for enabling sustainable rice production:

? **Upstream value creation is paramount**. Farmers and service providers in production landscapes need value propositions (i.e., agronomic packages; finance; income opportunities) that work in their real-world context.

? **Cash flow is key**. Solutions are needed to address payment delays and ?profit erosion? across long value chains and to mitigate fluctuations in farmer incomes throughout the year.

? **Trusted business relationships along the value chain**. Trusted relationships amongst value chain actors are essential for reducing side-selling in the context of pre-financing and off-take agreements.

? **Capacity of essential enablers needs strengthening.** To bring effective, bankable counterparties to finance sustainable rice, strong local capacity amongst essential enablers (e.g., cooperatives; agri-SMEs; off-takers) in rice production landscapes is required over the long-term.

? **Money alone will not overcome the challenges.** Technical assistance (TA) and service provision need to be embedded within financial structures.

? **Size mismatch inhibits finance.** De-risking and finance mechanisms need to be adapted to relatively small funding needs at the farmer level (e.g., aggregating similar projects to support larger investments).

? **There are no off-the-shelf blended finance projects.** Value propositions need to be co-created based on pre-investment feasibility assessments.

117. The study indicated that the target funding recipients of blended finance structures for sustainable rice would be entities capable of assisting rice growers and value chain stakeholders in adopting sustainable production practices and technologies through value chain incentives and/or financing mechanisms. These include: (i) Companies (e.g., input and service providers, processors, traders, cooperatives, technology providers) to provide appropriate combination of off-take contracts, pre-financing of inputs and services, training, advisory support, infrastructure development, new market channels, disintermediation); and (ii) Banks / financial institutions / insurers to provide appropriate forms of low-interest farm credit, working capital to agro-dealers, insurance (such as through additional, dedicated credit lines).

118. The paper concluded that transitioning to sustainable rice production **will require a mix of funding sources** and instruments, the most catalytic likely being long-term patient capital[192] for context-specific uses via high-quality local counterparties and implementing partners, and de-risking by concessionary funders (i.e., funders that provide capital on sub-commercial market-rate terms) and through technical assistance. Blended finance approaches will likely be required. Finance models to successfully scale up private sector investment in sustainable rice will require strong partnerships involving a range of actors, public and private, with different risk return appetites. Partnership, and public sector engagement, will also be crucial for affecting change across production landscapes and in the majority of rice value chains that are not connected to internationally traded or domestic premium markets.

World Business Council for Sustainable Development (WBCSD)

119. WBCSD is a global, CEO-led organization of over 200 leading businesses, supporting the achievement of the 2030 Sustainable Development Goals. WBCSD has a strong background on systems transformation, with a food and agriculture system focus, particularly for achieving the joint priorities of climate (net zero), nature (nature positive) and tackling inequality. The project will build

on the extensive network of WBCSD, in particular its members engaged in the rice value chain, including multi-national banks, agri-business off-takers, input companies and asset owners. Among others, WBCSD is implementing the Just Rural Transition Initiative funded by the UK Government targeting food systems transformation, smallholders, and rice landscapes, with the acceleration of regional solutions for SRLI being a key outcome area for the initiative. Additionally, WBCSD is also a partner under the GEF-7 FOLUR Global Coordination Project (see *Section 6.b Coordination with other projects*). WBCSD is currently supporting the development of an WBCSD Asia Rice Nature-based Solutions (NbS) Accelerator Platform. The aim of this initiative, implemented in collaboration with WBCSD?s member companies and key partners including the Natural Climate Solutions Alliance (NCSA), is to scale NbS credit solutions for climate, nature, and livelihoods.

Other private sector initiatives in the target countries

120. Other relevant private sector initiatives engaged in rice value chains in the target countries are summarized below. The project will build on the experiences and lessons learned of these initiatives and will consider these private sector entities as potential counterparts in the financial mechanism.

121. In 2016, under the Feed the Future Bangladesh Rice Value Chain (RVC) project funded by USAID and implemented by IRRI, the International Finance Investment and Commerce Bank Limited (IFIC Bank) with support from mSTAR/Bangladesh piloted an agri-credit facility for farmers using a mobile financial services platform.[193] IFIC Bank also provides loans to small and medium enterprises (SMEs) engaged in rice milling and other agribusinesses.[194] The Rice Value Chain project, implemented from 2016-2021, promoted a diversified farming system based on intensified rice production and the introduction of higher-value, nutrient-rich crops. It facilitated interventions through private sector companies to improve access to quality inputs, mechanization, financial inclusion, and digitization.[195]

122. In Cambodia, several examples of contract farming models in the rice value chain exist. **Angkor Kasekam** rice miller was one of the first to introduce contract farming with a minimum price based on market. The company is now working with 50,000 farmers in 4 provinces (Kandal, Kampong Speu, Takeo, Kampot). **Golden Rice** miller is working with Agence Fran?aise de D?veloppement (AFD) on contract farming. The scheme is looking at farm mechanization and seeds-nursery. The company currently supplies high quality paddy to 50,000 farmers that produce around 100,000 tons or rice/year. **Amru Rice** (largest rice miller and exporter in 2015) and Baitang, both use contract farming and farmers cooperation to ensure their supply chain grows fair and organic rice sustainably.[196] Amru Rice has adopted the SRP Standard to meet the requirements of international buyers and respond to global market trends of sourcing rice products in a more sustainable manner.[197] With support from the Global Agriculture and Food Security Program (GAFSP), the International Finance Corporation (IFC) and other lenders, Amru Rice constructed a state-of-the-art rice mill, which will help the company increase its milling capacity and expand its farmer reach. Amru Rice plans to increase the number of contract farmers in its supply chain from 3,600 to some 15,000 smallholder farmers and provide targeted technical assistance with the aim of boosting farm yields.[198] AFD has been working with commercial banks who provide loans to farmers. Amru Rice has been working with the micro-finance institution AMK, who provides loans to farmers and Agricultural Cooperatives (ACs).

123. In parallel, commodity exporters in Cambodia have embarked on certification schemes that open the doors to a fast-growing market. End-buyers and commodities traders such as Mars, Marks and Spencer, Carrefour, Olam are investing in the sustainability of their supply chain, to increase resilience to climate risks and other hazards.[199] In 2018, **IFC and Mars Food** entered a partnership to develop the rice industry in Cambodia sustainably, along with local supplier **Battambang Rice Investment Co., Ltd (BRICo)**.[200] In 2017, Mars Food announced that all Uncle Ben?s Basmati rice will be sourced from farmers who are working towards the SRP Standard for sustainable rice ? the first in the global rice industry. Mars Food works with partner organizations including IFC, GIZ and Oxfam in nine countries across Asia, Europe and the USA to help farmers adopt sustainable practices.

124. WCS and Sansom Mlup Prey (SMP) have been supporting around 1,000 smallholders? farmers to produce and market Wildlife Friendly **IBIS Rice**, which results in a 20% price premium for farmers. IBIS Rice has been certified organic to US and EU standards since 2016. IBIS Rice farmers produced more than 435 tons of organically grown, jasmine rice during the 2013-2014 harvest season.[201] In 2020, the United States Agency for International Development (USAID), through its Green Invest Asia project, facilitated a financing agreement between Phnom Penh Commercial Bank (PPCBank) and IBIS Rice Conservation Co Ltd. (IBIS Rice) to increase wildlife-friendly organic rice sales. In addition, USAID Green Invest Asia supported the creation of a debt facility for the company?s longer-term finance needs.[202]

125. In Viet Nam, IFC and IRRI, in partnership with the government of Canada, helped **Loc Troi Group (LTG)** (a leading provider of agricultural services and products in Viet Nam) adopt the SRP Standard. Strict requirements ensure the production of safe grains, protect the environment, and guard the health of farmers and consumers. LTG is the first agribusiness to apply sustainability standards in Viet Nam. To meet SRP?s conditions, the 3,500 farmers in LTG?s value chain must conform to 46 farming requirements in rice production in the Mekong Delta?s seven provinces.[203] In 2017, the Vietnamese government set up the **Public-Private Partnerships Taskforce on Rice**, which is already running several pilot projects in the Mekong and Red River Deltas.[204]

126. Under the **Development of Sustainable and Inclusive Rice Value Chain for smallholder producers in Vietnam** programme, Rikolto[205] is working with large rice corporations and trading companies and the Dong Thap Department of Agriculture and Rural Development to link smallholder farmers to national and global value chains for sustainable rice products.

C. Donor-funded initiatives

Global Agriculture and Food Security Program (GAFSP)

127. The Global Agriculture and Food Security Program (GAFSP) was launched in response to the 2007-08 food price crisis to address a clear need for increased investment in agriculture and food security. The GAFSP is a USD 1.7 billion multilateral financing mechanism that supports resilient and sustainable agriculture systems. It offers a range of public and private investment tools such as grants, technical assistance, concessional loans, blended finance, and advisory services across the entire value chain.[206] In December 2021, the GAFSP announced USD 121 million in new grants for nine national governments and, for the first time, an additional USD 30 million for producer organizations based in 12 countries worldwide, including Bangladesh and Cambodia. This funding aims to strengthen sustainable, inclusive, and resilient food systems in the world?s poorest countries, in response to rising food insecurity linked to COVID-19 and climate change.[207]

128. Among others, GAFSP is funding the USD 2.48 million ?Increasing Access to Finance for Farmers? Organizations in Bangladesh? or **Missing Middle Initiative (MMI)** project (2018-2022), led by the Ministry of Agriculture with technical support from FAO. The goal of the MMI project is to strengthen 55 farmers organizations (Fos) and 10,000 farmers through capacity building on financial and organizational management, governance, and leadership/negotiation skills; market linkages with private sector (bulk buying of inputs and selling produce); access to finance (Fos as bank agents or being an FO member reduces credit risk); access to technology (safe vegetable production, improved varieties); and, establishment of collection points for vegetables, fruits, and milk with cleaning, sorting, grading, and packaging facilities.[208] Since 2018, FAO has been working together with Sara Bangla Krishak Society (SBKS), a national federation of 55 producers? organizations (POs), to develop the capacity of POs to access value chains, markets, technology, information and finance. The micro-banking software MBWin was introduced in 2022 in order to streamline the operations of the SBKS revolving fund which is providing loans to 7,500 producers. *The proposed project will coordinate*

closely with GAFSP and the MMI in order to learn from its experiences, align investments, and avoid duplication.

USAID Green Invest Asia

129. USAID Green Invest Asia supports agriculture and forestry companies with business strategies, environmental assessments, and advice to improve their sustainable commodity production and business practices, including preparing companies for investment and capital matchmaking. The initial focus of the program has been on rice, rubber, timber, coffee, coconut and cacao in Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, and Viet Nam.[209] *The proposed project will explore linkages with this program in relation to fostering investments in sustainable rice production.*

FAO initiatives

130. FAO?s **Hand-in-Hand Initiative (HIHI)**[210] aims to accelerate agricultural transformation and sustainable rural development through ?matchmaking? between priority countries with greatest needs and funding sources; a geospatial platform to support informed targeting of investments; an innovation data lab; and a monitoring and evaluation dashboard. The HIHI approach has proven to be a useful model for coordinating integrated rapid response to COVID-19 impacts on food systems. Bangladesh is among the priority HIHI countries in Asia. *The proposed project will seek opportunities to build on data generated by the HIHI platform and coordinate with its investments in agricultural transformation.*

131. **RuralInvest** is a toolkit developed by FAO to help prepare and evaluate small- and medium-size agricultural and rural investment projects. The RuralInvest toolkit can be used by groups, organizations or individuals wishing to prepare an investment proposal or mobilize resources. Among others, the toolkit was used in Bangladesh under the Missing Middle Initiative (MMI) described above.[211] The RuralInvest can be used as a tool to lower risks of investment by helping small local companies prepare a business plan. *The proposed project will explore opportunities to use the RuralInvest toolkit under the financial mechanism to be established by the project.*

UN Environment Programme (UNEP) ? KPI Directory

132. UNEP?s Climate Finance Unit, in collaboration with the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) and in consultation with impact investors, banks and international organisations have been working to identify best practices, evidence, research, and metrics for standardizing and mainstreaming risk management and impact for sustainable land-use and deforestation-free commodity financing. The Land-use Financing ? Positive Impact Indicators Directory has been designed to help harmonise monitoring and reporting across a range of positive environmental and social (E&S) impact areas: biodiversity conservation, climate adaptation, and mitigation, forest protection, and sustainable livelihoods. A web platform is currently being created.[212] The portfolio of UNEP?s Finance Initiative (UNEP-FI) includes the AGRI3 Fund, the Tropical Landscapes Finance Facility (TLFF), the &Green Fund, the Restoration Seed Capital Facility (RSCF), the Good Food Finance Network (GFFN), and the Restoration Factory.[213]

Other donor-funded initiatives

133. Other relevant donor-funded initiatives in the three target countries are summarized below. The proposed project will learn from the experiences of these initiatives, while ensuring coordination and exchange of knowledge with them.

Initiative	Linkages with the project

1) Conservation International GEF-7 Non-Grant Instrument (NGI) Project **The Food Securities Fund: A fund to finance sustainable supply chains at scale in emerging and developing markets** (GEF ID 10322).[214] The Food Securities Fund aims to improve rural livelihoods and achieve positive environmental outcomes by supporting sustainable agriculture production systems in emerging and developing markets with a complementary source of credit, provided in partnership with companies committed to sustainable development in their sourcing areas. The Food Securities Fund intends to coordinate with government and agency leads executing FOLUR projects in countries where overlaps exist. Within the GEF commitment period, the Food Securities Fund intends to target the following initial FOLUR cohort countries and sectors: ? Palm oil in Indonesia and Liberia, with the potential for including Peru; ? Cocoa in C?te d?Ivoire, Ghana, and potentially Indonesia, Peru and Colombia; ? Coffee in Burundi and Ethiopia, with the potential for including Indonesia, Colombia, Peru, Guatemala and Mexico; and ? Soy, notably in Brazil and potentially Argentina and Paraguay. The Food Securities Fund may also consider investment opportunities in the **rice sector in Indonesia and Viet Nam**.	The proposed project will closely exchange with the CI NGI project, in particular to build on lessons learned and avoid overlap and duplication with the investments of this fund, as well as explore opportunities to co-invest.

1) In the period 2022-2024, the **International Rice Research Institute (IRRI)** is implementing several projects across the region upon which the proposed project can build. Among others, these include: (1) Transforming Agrifood Systems in South Asia: This project will test, adapt, target, and position agronomic technologies and practices supporting crop and livestock diversification among next-users, while developing strategies to render agricultural value chains more inclusive by 2024. (2) Harnessing Digital Technologies for Timely Decision-Making across Food, Land, and Water Systems: This initiative aims to support inclusive agricultural transformation and sustainable food-land-water management by improving information systems and strengthening digital innovation ecosystems. (3) Sustainable Intensification of Mixed Farming Systems: This project aims to provide equitable, transformative pathways for improved livelihoods of actors in mixed farming systems (MFS) through sustainable intensification (SI) within target agro-ecologies and socio-economic settings. (4) Securing the food systems of Asian Mega-Deltas for climate and livelihood resilience (AMD): The objective of this project to support the creation of resilient, inclusive and productive deltas, capable of maintaining socio-ecological integrity. (5) Adaptation Assessment for Investments in Rice-based Food Systems of Asian Mega Deltas: This project will undertake climate risk screening and provide decision-support for cost-effective and impactful adaptation options in agriculture-dependent and climate-vulnerable areas of select Asian Mega Deltas. (6) Agroecological transitions for building resilient and inclusive agricultural and food systems (TRANSITIONS): The objective of this program is to enable agroecological transitions through the development and adoption of holistic metrics for food and agricultural systems performance, inclusive digital tools and transparent private sector engagement to foster incentives and investment.	The project aims to build on the outcomes of these projects, including the decision-support for adaptation options and the metrics for agroecological transition.
2) The Government of Bangladesh, in collaboration with partners, is currently developing an **Agricultural Transformation Program (ATP)** led by the Ministry of Agriculture (MoA) with support of Local Consultative Group on Agriculture, Food Security and Rural Development (co-led by FAO through the Hand in Hand Initiative). An initial commitment of USD 500 million has been made by the World Bank. The goal is the modernisation of Bangladesh agriculture sector through interventions that will include: promotion of export-oriented agricultural production, agro-processing, climate-resilient agriculture/agroecology and climate finance, digital transformation in agriculture, women and youth led agricultural leadership and entrepreneurship, private sector and supply chain improvements, and commodity diversification.	The proposed project will collaborate closely with the ATP and HIHI initiative during project preparation and implementation to identify synergies.
3) Since 2017, the Bangladesh Rice Research Institute (BRRI) jointly with the International Rice Research Institute (IRRI) implemented the project ?**Climate-smart practices and varieties for intensive rice-based systems in Bangladesh**?, funded by the Asian Development Bank (ADB). The project aims to adopt climate-friendly technologies for sustainable farming of the crop in the country.[215]	The project will build on the knowledge generated by this project with regard to climate-smart rice-based farming systems.

4) In Viet Nam, the **Green Innovation Centres** initiative of GIZ will include capacity development of at least 20,000 rice farmers and their associations to adopt the SRP climate-smart best practices and comply with the SRP Standard. It also strengthens innovative value chains for rice straw-derived products, supported by IRRI.	The project will build on the knowledge gained and lessons learned of this project in implementing the SRP Standard.
5) The **GIZ-Better Rice Initiative Asia (BRIA) II/Market-oriented Smallholder Value Chains Project (MSVC)** is a Public-Private Partnership (PPP) project between German Federal Ministry of Economic Cooperation and Development (BMZ) and Olam International Ltd, implemented in Indonesia, Thailand, and Viet Nam from 2018 to 2022. The project aims to enable smallholder rice farmers to access sustainable Market Oriented Smallholder Value Chains, by using the SRP Standard to promote sustainable rice cultivation. Over 9,000 smallholder farmers have been trained so far in the three countries on sustainable rice production and access to sustainable value chain, as a results of which their income has increased by 20%.[216]	The project will build on the knowledge gained and lessons learned of this project in implementing the SRP Standard.
6) In Viet Nam also, the **Irrigated Rice Research Consortium (IRRC)** led by IRRI in collaboration with the National Agricultural Research and Extension Systems (NARES) promotes the ?Three Reductions, Three Gains (3R3G)? and the ?One Must Do, Five Reductions (1M5R)? integrated technology packages in order to reduce production costs, improve farmer health, and protect the environment in irrigated rice production.	The project will build on the knowledge and lessons learned of this project in implementing sustainable, climate-smart rice production.

Monitoring/indicator frameworks for adaptation

134. The following monitoring/indicator frameworks for adaptation in agriculture have been developed and will provide a basis for the indicator framework to be established for the financial mechanism (Table 2). These indicators will be considered when developing the Fund?s adaptation metrics under Component 3, alongside the SRP Standard described above. As explained above, the SRP Standard and its Performance Indicators provide robust and proven metrics based on which financing mechanisms can be developed. It also provides the basis for M&E at the farm level. The SRP Standard has three levels of verification:

1) **Assurance level 1:** Self-Assessment. First level does not involve annual fee, but farmers self-register in the SRP database. This level is well suited to be linked with financing mechanisms, in particular for resource-poor farmers who lack access to finance.
2) **Assurance level 2:** Second Party Verification (such as through Participatory Guarantee System (PGS), external SRP approved Verification Body linked to producers or producer groups).
3) **Assurance level 3:** Third Party Verification by approved SRP Verification Body.[217]

135. Additionally, UNEP?s KPI Directory[218] as well as other existing frameworks[219] will also be considered when designing the project?s E&S and impact monitoring and Key Performance Indicators. Indicator frameworks from the AGRI3 Fund[220] and other relevant funds will also be taken into account.

Table 2: Relevant monitoring/indicator frameworks for climate change adaptation

Reference	Topic(s)	Level	Sector (intended users)

Reference	Topic(s)	Level	Sector (intended users)
Tool for Agroecology Performance Evaluation (TAPE)[221]	Assesses agroecological conditions and transitions in ten core dimensions[222]	National and program/ project level	Multi-sectoral (adaptation practitioners)
Tracking Adaptation in Agricultural Sectors: Climate Change Adaptation Indicators[223] (FAO, 2017)	Methods and indicators for tracking climate-change adaptation	National and sub-national	AFOLU (national decision-makers and MRV practitioners)
Green Climate Fund (GCF) Results Measurement Framework, particularly the Adaptation Impact Indicators[224]	Mitigation and adaptation performance measurement frameworks designed to measure the results of the Fund	National and program/ project level	Multi-sectoral (adaptation practitioners)
ASAP Taxonomy of Adaptation SMEs [225]	The Adaptation SME Accelerator Program (ASAP) aims to enhance the availability and uptake of climate adaptation solutions by identifying, engaging and empowering SMEs providing such solutions in developing countries	SMEs	Multi-sectoral
Monitoring and reporting toolkit of Pilot Program for Climate Resilience (PPCR)[226] (CIF, 2015)	Processes related to adaptation planning and mainstreaming	National and program/ project level	Multi-sectoral (national policy-makers)
Index for risk assessment (INFORM) [227] (De Groeve et al., 2015)	Assessment of country resilience and ranking	National	Multi-sectoral (national decision-makers and international organizations)
Framework on making adaptation count[228] (Spearman and McGray, 2011)	Monitoring and evaluation of adaptation processes and outcomes	National and local	Multi-sectoral (adaptation practitioners)
Strengthening Monitoring and Evaluation of Climate Change Adaptation[229] (GEF STAP, 2017)	M&E challenges and frameworks	Program/ project	Multi-sectoral (development agencies and financial institutions)
Climate Smart Agriculture (CSA) monitoring and evaluation framework[230]	CSA programme and project monitoring and evaluation framework; Examples of indicators	Program/ project	Multi-sectoral (adaptation practitioners)
CGIAR CSA Programming and Indicator Tool[231]	Metrics and tool for tracking outcomes and impact of CSA programs	Program/ project	Multi-sectoral (adaptation practitioners)

Reference	Topic(s)	Level	Sector (intended users)
Viet Nam M&E system and indicators for adaptation in the agriculture sectors developed under the NAP for the agriculture sectors project	M&E system for adaptation in agriculture in Viet Nam	National and sub-national	AFOLU (national and sub-national decision-makers)
ICRISAT MEASURE[232]	Digital M&E system for agriculture research for development projects.	Program/ project	Multi-sectoral (adaptation practitioners)

136. Furthermore, the project will exchange with other proponents of the Challenge Program for Adaptation Innovation that are also working on indicators and frameworks for identifying and measuring climate adaptation MSMEs and smallholder farmers. These include (i) ?Acceleration of Fintech Enabled Climate Resilience Solutions? (UNIDO with BFA Global); (ii) ?Certification of NbS Portfolios of Inclusive Financial Service Providers for Scaling CCA and Biodiversity Finance for small-holder farmers? (IFAD and BNP Paribas); and (iii) ?Indicators Framework for CCA and Biodiversity Conservation Finance for Smallholders: Leveraging private and public finance? (IFAD and Fondation Grameen Credit Agricole).

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project and the project?s Theory of Change

137. The project will support the design of a new blended finance facility to catalyse public and private sector investment to scale-up adaptation and resilience-building in rice landscapes across Asia.[233] The proposed financing model to be established will likely consist of the following interrelated elements (to be elaborated in detail as part of the GEF project implementation):

1) **A major regional blended finance instrument supporting adaptation** (the Resilient Rice Landscapes, RRL, Facility), managed by an international financial institution such as IFC, capitalized with contributions from international donors such as the GCF and the private sector. This will be composed of:

a. **A de-risking facility or mechanism** consisting of a funded guarantee or a subordinated tranche[234] funded by international donors such as the GCF, accompanying and enabling private sector investment in relevant transactions, and

b. **Commercial finance** from public and private investors. These investments by institutional and private investors could be leveraged for example through bonds or other instruments issued and managed by IFC or via a Fund Manager.

2) **A technical assistance grant** funded by GCF and/or other international donors for the following grant components:

a. **National catalytic revolving fund facilities**, providing co-funding at concessionary rates, to support the transfer of new technologies to eligible rice value chain actors established as legal entities to strengthen their adaptive capacity in situations where commercial investments in support of adaptation are not feasible. The management of these funds may occur at a regional and/or national levels, with the preference for the latter to facilitate stakeholder access and maximize durability. These may be associated with the SRP national chapters.

b. **Non-returnable grant facility** for one-off (results-based) investments in capacity development including training on adoption of the SRP Standard and verification systems in support of sustainable procurement and de-risking of supply chains, as well as other public goods and/or pilots focused on adaptation options at the farm and landscape levels. This will be managed at the facility (regional) level. Grant funding will be prioritised to entities which can demonstrate capacity in sustainable, climate-resilient rice landscapes/value chains/livelihoods.

138. It is envisioned that the **RRL Finance Facility** would give out loans **primarily to private entities**, such as through:

- ? Loans to companies that invest in climate-resilient supply chain infrastructure (milling, processing, storage, biogas digesters, irrigation, etc.).
- ? Loans to companies that provide services (e.g., mechanization, weather advisories, crop insurance) or inputs (e.g., seeds, organic fertilizer) to farmers, in particular women and vulnerable groups.
- ? Loans to companies that invest in SRP-compliant production in their supply chain (e.g., as part of off-take agreements), including strengthening demand side/product marketing.
- ? Loans to national/local commercial banks to enhance access to credit by farmers, agricultural cooperatives and SMEs to invest in the adaptation (and GHG mitigation) options such as those identified in Table 1.

139. On the other hand, the **catalytic revolving fund facilities** and the **grant facility** would provide grants or zero interest loans to either **public or private entities**. This could involve, among others:

- ? Upfront investments needed to adopt new technologies, standards or approaches.
- ? Investment in research and development through the country-level revolving funds.
- ? Technical assistance from the grant facility, accompanying other public or private investments, including farmer training.
- ? Technical assistance for enabling environment such as government policies and landscape-level planning.

140. These financing mechanisms will be designed to fill current financing gaps, rather than to displace existing financing sources. Funds could be allocated by the Facility Manager (e.g., IFC) directly and/or through local intermediaries/financial institutions. The criteria and modalities at the regional level and for each country will be elaborated as part of the GEF project, as described in the Alternative scenario.

141. Furthermore, even though the financing will be largely channelled through private sector, it should ultimately benefit smallholder farmers (women and men). The loans and grants are expected to increase the climate resilience of rice farmers and livelihoods through the following:

- ? Enhanced access to finance, including for women[235] (e.g., lower interest rates or longer tenors).
- ? Increased access to services, including weather advisories and early warning systems, in particular for women and vulnerable groups.
- ? Improved access to post-harvest services and infrastructure (drying, storage, milling).
- ? Access to high-quality, climate-resilient seeds.
- ? Sustainable and diversified practices, e.g., improved water management, soil and nutrient management, and integrated pest management, leading to improved resilience at farm level and of agro-ecosystems, and increased productivity.
- ? Contracts with offtakers, leading to more stable market access.
- ? Enhanced capacities and farmer organization.

142. Finally, while the Facility itself will not include insurance as a financing mechanism, linkages may be established with existing index-based crop insurance, where feasible. Also, insurance/micro-insurance companies could potentially be among the recipients of loans of the Facility.

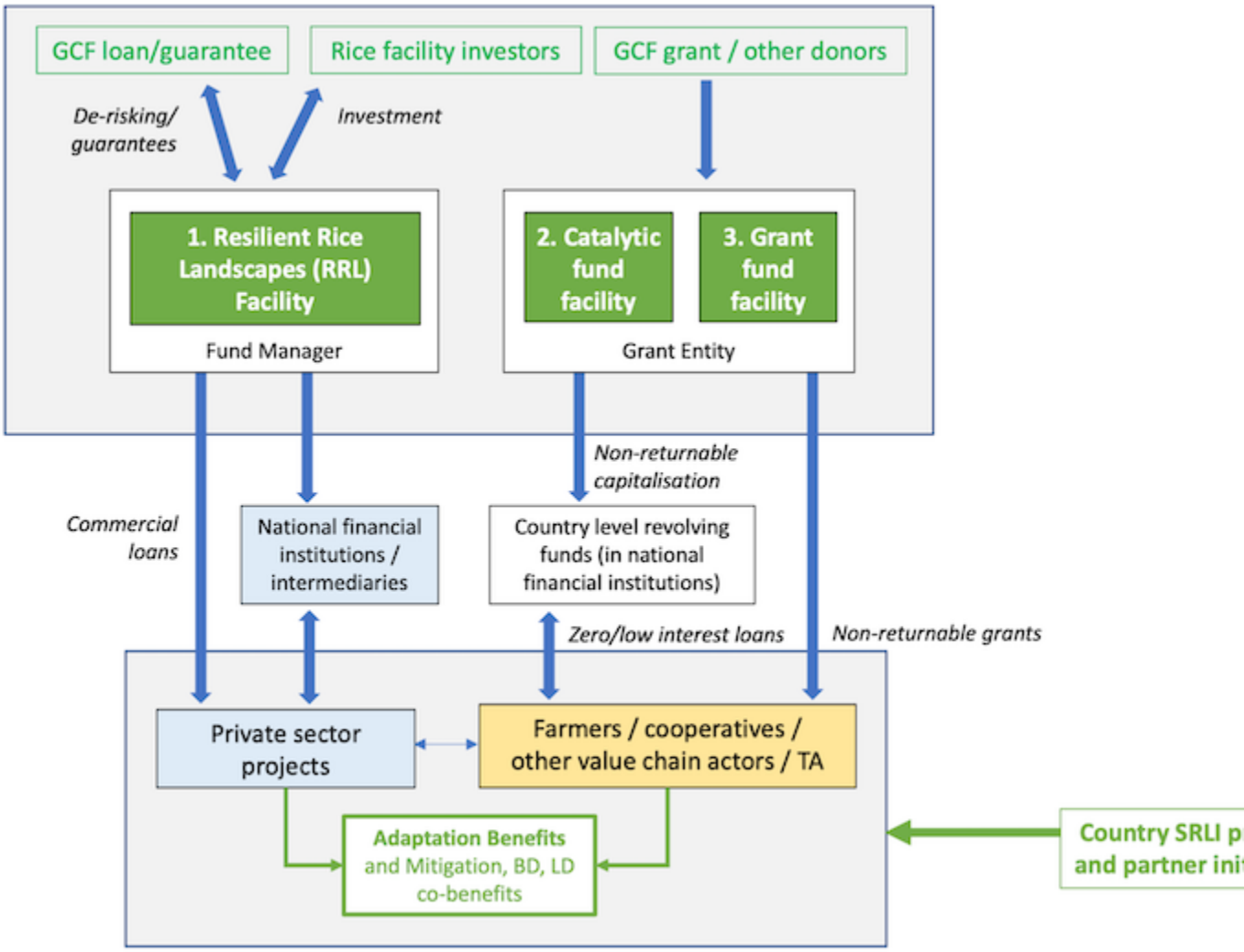


Figure 7: Proposed finance mechanism and support structures
(to be further elaborated during project implementation)

143. The project will bring together several major related initiatives to expand the reach and deepen the impact of SRLI projects in Asia. This regional scope will optimize cost-effectiveness and facilitate the engagement of relevant private sector stakeholders, companies, and investors, across the region and beyond, and builds on the strong basis of regional collaboration established to date by the SRLI including the Sustainable Rice Platform (SRP) networks and national chapters. The project will initially focus on three target countries ? Bangladesh, Cambodia, and Viet Nam ? where it will support producers and other value chain stakeholders, as well as relevant local financial institutions in accessing, managing, and investing funds channelled from the regional finance package. This GEF-funded project will design and secure key partnerships for a regional rice landscapes facility, including identifying investment opportunities, partners, governance, and resource mobilization structures. The focus countries for this project have been selected based on rice-related adaptation priorities, and the opportunities that exist for working with relevant local private and public sector stakeholders and building on other initiatives and partnership opportunities.

144. The project?s Theory of Change is shown below. The project?s objective is to catalyse public and private financing for climate-resilient rice landscapes, value chains and livelihoods. Three distinct outcomes will help achieve this objective: (1) the design of an integrated financing mechanism; (2) the

enhancement of financial and technical capacities of farmers (women and men), producer groups/agricultural cooperatives, counterparts, and intermediaries to invest effectively in climate resilience; and (3) the development and implementation of program-wide impact monitoring, governance, adaptive learning and knowledge sharing mechanisms. It is anticipated that these outcomes will ultimately lead to (i) increased access by producers and other value chain actors[236] to financing to invest in climate-resilient rice landscapes, value chains and livelihoods, (ii) strengthened capacity to develop and fund high impact resilient rice landscapes investment projects with verifiable adaptation benefits, (iii) enhanced technical capacities among the local private sector, and smallholder farmers and farmer groups, to transition to resilient rice production landscapes, and (iv) continuous improvement of financing mechanisms to support scaling of adaptation and resilience benefits in rice landscapes and value chains. Based on this, the project?s expected long-term impact is that stakeholders implement practices and technologies for climate-resilient rice landscapes, value chains and livelihoods.

145. The Theory of Change is based on several assumptions. Firstly, it assumes that sufficient financing can be secured for the financing mechanism, for example from the Green Climate Fund and private investors. Secondly, it assumes that sufficient potential value chain partners, national financial institutions and beneficiaries can be identified that will be interested in the financing mechanism and meet the minimum requirements of the fund. Initial consultations during the project preparation phase have confirmed interest in such financial mechanism among financial institutions and private sector entities. Thirdly, it assumes that investments in specific technical solutions will ultimately lead to more resilient rice landscapes and value chains, as reflected in the adaptation indicators to be developed for the Facility.

146. *Climate-resilient landscapes approach.* Investments by the Facility will be made within a context of integrated landscape management and diversified farming and livelihood systems that promote resilience to climatic and other shocks. Although the Facility?s primary target will be the rice sector, it is important to note that it may also invest in other climate-resilient livelihoods and value chains within rice-dominated landscapes as part of a climate-resilient landscape approach. This may, in the context of some rice landscapes, involve diversification away from rice to new crops such as pulses and oilseeds or other livelihoods. Details will be elaborated during project implementation based on the adaptation options identified as part of Output 1.1. It is envisioned that planning at the landscape level will be supported (i) by the GEF-7 (and potential future GEF-8) projects to which this project links, and/or (ii) by the technical assistance/grant component of the future Finance Facility. Experiences with integrated landscape finance will be considered.[237]

Opportunity: The push for supply chain resilience

147. The project builds on the opportunity of an increasing push from supply chain actors towards sustainability and supply chain resilience. Wholesale/large retail commodity buyers (such as Mars, Marks and Spencer, Olam) are starting to redirect their purchase orders on countries with resilient supply chain, which ensure continuity of supply, sustainability measures, and build capacity of farmers on climate-smart agriculture. However, lower-income countries such as Cambodia lack competitive advantage in this area as they have poor storage and processing facilities, limited irrigation systems, low farmer organization rate, and a weak certified seed production system.[238] Investing in supply chain resilience represents an opportunity for Governments, private sector, and smallholder farmers in the region. Additionally, companies are increasingly investing in solutions that help them mitigate GHG emissions in their supply chains (and which often have adaptation co-benefits).[239]

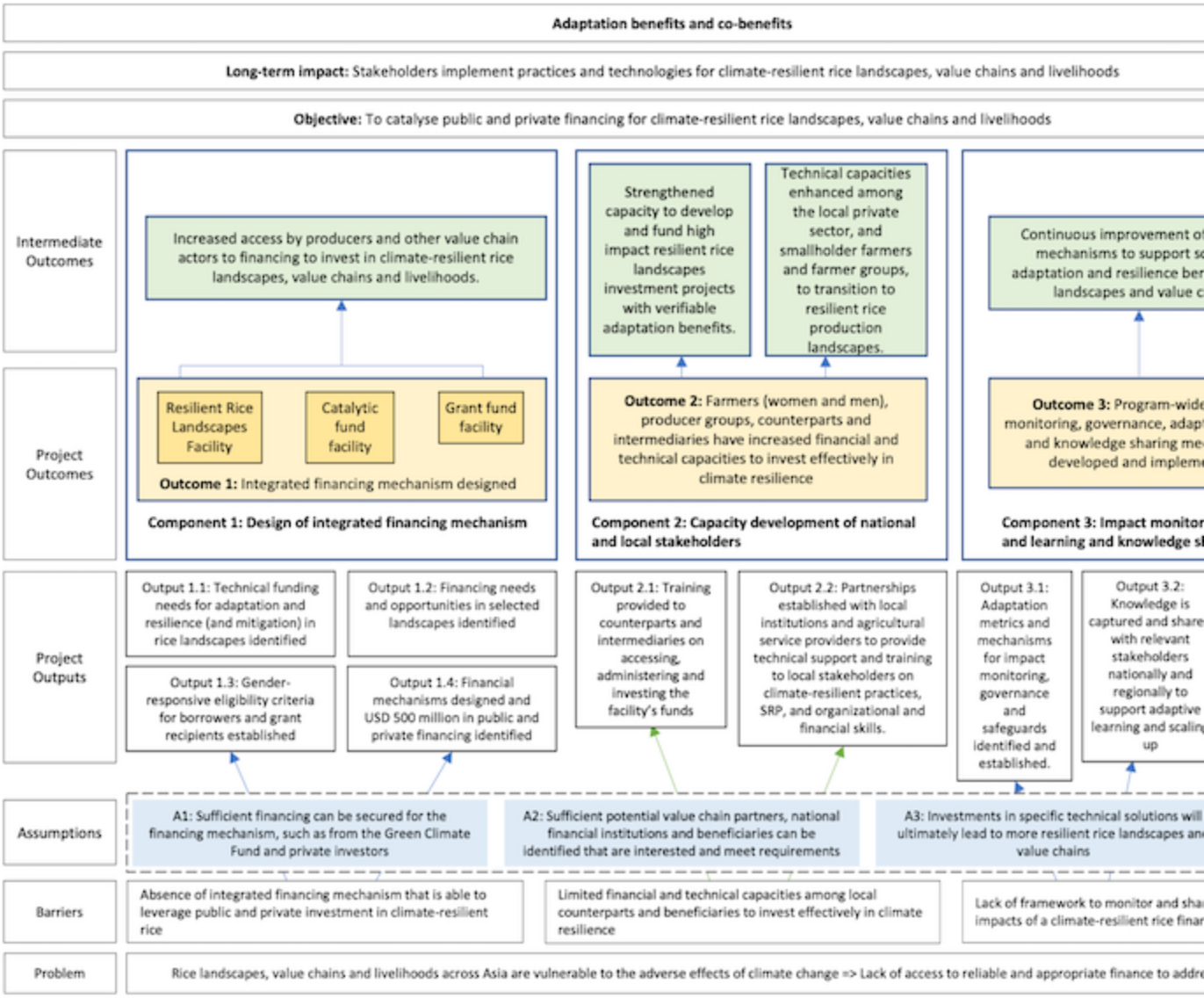


Figure 8: Theory of Change

148. A formal proposal will be prepared with the project?s assistance for submission to the Green Climate Fund (GCF) and other potential funders to support i) the de-risking facility or mechanism (GCF guarantee); ii) additional capitalization of the Facility (public and private investors); iii) the revolving and grant funds (GCF grant). The proposed finance mechanisms and support structures are shown in Figure 7 above. The expected timeline of the GEF project and related GCF and additional investments is shown in Figure 9. During the project?s lifetime, the project will enhance the capacity of an estimated 6-9 organizations (financial institutions, farmers? organizations, private sector) and about 6,250 individuals (50% women[240], 25% youth[241]) (e.g., financial institution staff, private sector representatives, farmer organization members, agricultural cooperatives, producers). It will also result in an area of 1,500 hectares of agricultural land managed for climate resilience. Furthermore, it is estimated that the future investment of the Facility will benefit up to 1 million people who are engaged in the rice sector[242] and depend on rice landscapes and deliver adaptation benefits over an area estimated at between 2 and 4 million ha[243].

149. The project will ensure that women smallholder farmers equally benefit from the Facility and that it addresses women?s specific needs and vulnerabilities to climate change.

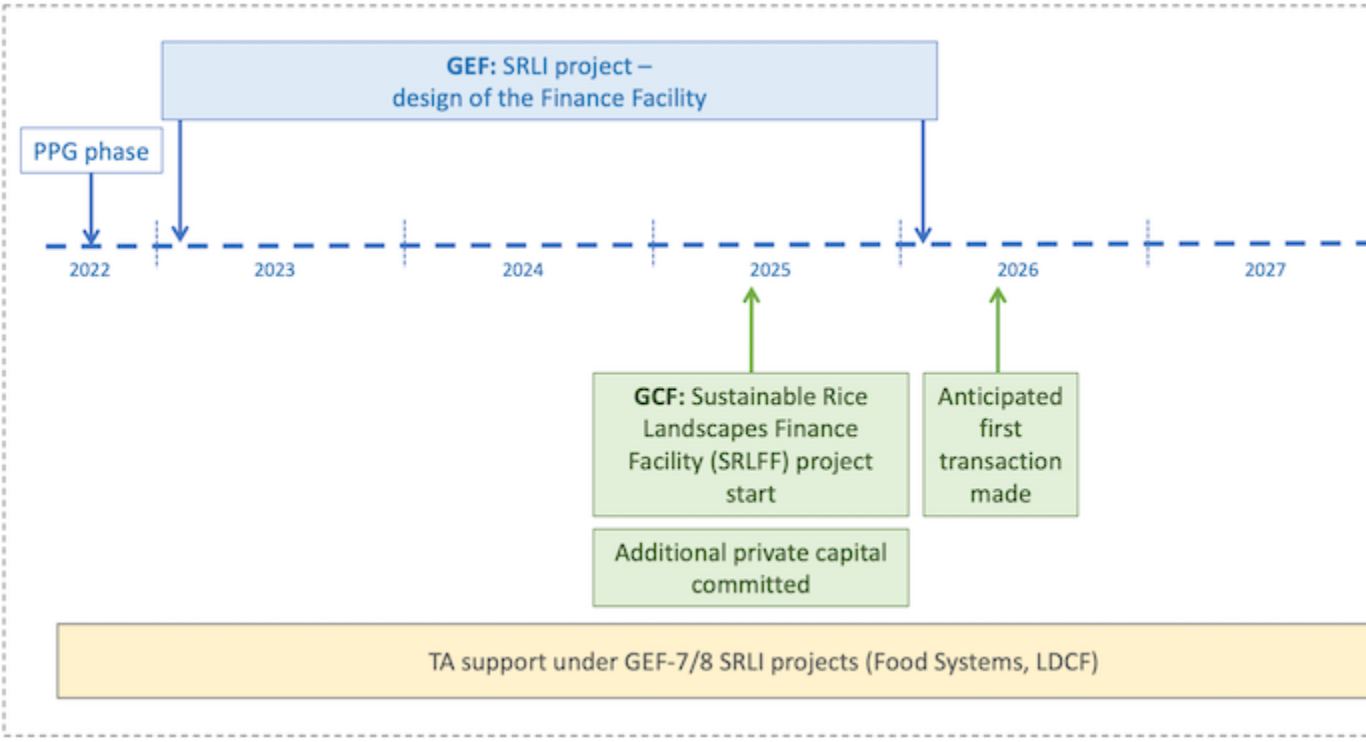


Figure 9: Tentative timeline

150. The project components, outcomes and outputs are described in more detail below.

Component 1: Designing an integrated financing mechanism to increase investments in climate-resilient rice landscapes, value chains and livelihoods

151. Under Outcome 1, the project will design an integrated financing mechanism that will result in increased access by producers and other value chain actors to financing for climate-resilient rice[244] landscapes, value chains and livelihoods. This will include the following outputs:

152. Output 1.1: Technical options requiring financing for adaptation and resilience (and mitigation) in rice landscapes will be identified in a gender-sensitive manner based on existing assessments and evolving knowledge base in the region and in the target landscapes. Technical assistance will be provided in each of the target countries to identify value chain wide management options, field measures and technologies capable of delivering adaptation benefits (and mitigation co-benefits as well as increased productivity). Based on these options, the project will help identify those measures that can be financed through existing funding sources, and those that require external funding and longer-term capital. While the primary focus will be on rice, the project will also consider funding other investments in rice landscapes including for diversification, where this helps build climate resilience and sustainable livelihoods. Additionally, these options will be identified within the context of existing national and local adaptation plans and with a landscape view to ensure that the identified options contribute to climate-resilient landscapes and do not result in maladaptation. Linkages will be sought with existing initiatives and programmes, including among others the Agricultural Transformation Program in Bangladesh and the Conservation Agriculture and Sustainable Intensification Consortium (CASIC) in Cambodia. The indicative activities under Output 1.1 are summarized below (as indicated in the work plan in Annex H).

Activities	Deliverables
A. Identify gender-sensitive technical options for adaptation / resilience in targeted rice landscapes. Develop gender-sensitive list of practices/ management options/ technologies leading to potential adaptation (& mitigation) benefits (as well as increased productivity). Evaluation of costs of these options, including those that can be met from existing funding sources (public and private)[245] and those that require concessionary funding. Technical options should include those that respond to the priorities of women, such as livelihood diversification and Income Generating Activities (IGA), small-scale machinery (where relevant), etc.	Summary prioritized list of technical options to ?invest? in, including evaluation of costs
B. Cost & benefit evaluation. Evaluate cost-benefit (impact benefits, financial benefits) of the technical options in each country & region	Summary prioritized list of technical options to ?invest? in and link to M&E framework and Theory of Change
C. Stakeholder consultations. Organize consultations with Government, local communities, Indigenous Peoples, civil society, private sector, media, and other relevant stakeholders on the proposed options. Review prioritized list of technical options, including prioritization by women vs. men where relevant. Discuss funding needs for these options. Ensure that women are well represented and actively participate in the consultations, including consultations with women-only groups.	Summary of stakeholder inputs, including gender and Indigenous Peoples inputs

153. Output 1.2: Based on the technical options identified above, the project will identify gender-sensitive financing needs and opportunities, as well as potential counterparts, in selected rice landscapes. This Output will help to gain a better understanding of the financing needs and challenges, including the type of capital and duration needed, and identify specific potential transactions at the national or regional level. As described above, it is anticipated that future fund disbursements will be primarily directed at private companies, or at national financial institutions who will act as intermediaries. Needs for technical assistance to accompany the Fund?s investments will also be identified. The rice value chain, the role of private sector actors within this value chain, the regulatory environment, and financing gaps, may differ in each country. The assessments undertaken under this output will ensure that these differences are accounted for in the design of the financing mechanism. Linkages with institutions such as the Green Financing Institution in Cambodia will be sought.

Activities	Deliverables

A. Scoping of financing needs. Assess country & counterpart financing needs, categorized by amount, scale, timing, potential for returns (3 countries & regional): Identified priority types of funding, volumes, timing, instruments for countries & region. Describe amount, term, conditions of commercial and concessionary capital that is needed for each country & regionally including potential sources. Include gender and youth considerations, including consultations with women and youth.	Summary of financing needs; financial model(s) & descriptions of commercial and concessionary capital required.
B. Counterparts (borrowers). Describe potential counterparts (i.e., local on the ground stakeholder/borrowers and value chain partners), categorised by type and with examples. Financing opportunities associated with these (3 countries & regional): Identify specific counterparts for both concessionary & commercial funding in each country & regional. This should also include smaller-scale local counterparts (e.g., SMEs, agricultural cooperatives).	Summary of potential counterparts (concrete examples & ?ready? deal flow) with potential examples e.g., MOU / LOI
C. Intermediaries (financial institutions). Describe potential intermediaries (e.g., local financial institutions) in each country & regional, including value add & costs & benefits: Identify if and what intermediaries are required regionally & locally and how to engage them. Identification of potential partnerships.	Summary of if & what intermediaries to involve and how. Potential ?real? commitments e.g., MOU / LOI
D. Compliance and regulatory analysis. Analyse compliance, legal and regulatory environment for investments in rice landscapes in each of the three target countries	Report of compliance, legal and regulatory analysis for each of the three countries

154. Output 1.3: In parallel with the adaptation metrics and indicators developed under Output 3.1, the project will develop gender-responsive eligibility criteria for borrowers and grant recipients. These criteria will be established based on considerations of the potential to deliver adaptation and resilience benefits (as well as mitigation co-benefits) and to generate livelihood benefits to smallholder farmers, in particular women and vulnerable groups. Criteria may include alignment with the SRP Standard and Performance Indicators as well as other criteria. The criteria will be gender-sensitive and should ensure that farmers groups, SMEs, and agricultural cooperatives are also able to benefit from the funds, not just larger companies. Safeguards and private sector due diligence aspects will also be taken into consideration, including the exclusionary criteria under FAO?s Strategy for Private Sector Engagement (2021-2025)[246] as well as IFC?s Integrity Due Diligence Process[247]. The criteria will describe how the Facility will address the challenges identified (in line with the Theory of Change developed under Component 3) and will include sufficient flexibility to be able meet the needs of evolving markets.

Activities	**Deliverables**

A. Technical. In consultation with partners and stakeholders, develop list of technical requirements for counterparties & intermediaries (e.g., local capacity in terms of skill set, organisation business model, stakeholders), taking into account national circumstances. Ensure that the eligibility criteria are gender-sensitive (e.g., a certain percentage of employees/beneficiaries are women, a certain percentage of loan recipients are female-led/household-led enterprises, the inclusion of management alternatives with specific potential to benefit women, etc.).	List of requirements
B. Financial. Develop counterparty & intermediary selection requirements, based on country regulations, and needs e.g., type of entity, regulations, investment criteria	Financial eligibility criteria for concessionary & commercial funding
C. Impact potential. Describe the impact potential based on eligibility criteria including linked to SRP.	Description of impact potential for the region & per country

155. Output 1.4: The project will facilitate and elaborate a detailed proposal and documentation on the structuring, establishment, and management of the package of interrelated financial instruments described above based on real financing needs within the specific landscapes and regionally, which will support the scaling up of adaptation practices. Working closely with identified partners, the project aims to identify an estimated USD 500 million in public and private financing. Linkages will be sought with existing initiatives, funds, and programmes, including among others the Agricultural Transformation Program in Bangladesh, CASIC and the Green Financing Institution in Cambodia, and the Vietnam Environment Protection Fund. It is expected that the USD 500 million in public and private investment will be identified and initial commitments obtained during the life of the project. However, the formal commitments of funds may occur beyond the life of the project.

Activities	Deliverables
A. Develop detailed design / structuring of financial instruments at regional and national levels. The project will strive to ensure that women smallholder farmers equally benefit from the Facility and that it addresses women?s specific needs and vulnerabilities to climate change. The financing mechanisms should benefit women-led/household-led[248] enterprises and cooperatives.	Structuring of financial instruments
B. Identification and mobilization of financing. Develop proposals and engage potential financiers.	Conditions created for the funding to be mobilized (public, private)
C. Lay foundations for first transactions / investment pipeline. This may also involve piloting first transactions through partner mechanisms (e.g., the Food Securities Fund, Agri3).	Conditions created for first business transactions / investment pipeline.

Component 2: Capacity development of national and local stakeholders to invest effectively in climate-resilient rice landscapes

156. Under Outcome 2, the project will help strengthen capacities of stakeholders along the finance supply chain (including national production sector institutions, value chain actors, farmer federations and national financial institutions) to access, administer and invest funds (commercial, revolving and/or grant) effectively. It will also establish partnerships to provide technical assistance to farmers (women and men) and producer groups in implementing climate-resilient measures and in enhancing their organizational and financial skills. This will ultimately lead to increased financial and technical capacities among these stakeholders to invest effectively in climate resilience.

157. Output 2.1: In collaboration with identified partners, training will be provided to counterparts and intermediaries on accessing, administering, and investing the facility?s funds (financial, technical, and social/gender aspects) in a gender-responsive manner. This may involve regional and national/local financial institutions and other public and private organizations working in agriculture finance in the region and selected landscapes. It may also involve building capacities of national GCF accredited entities in accessing climate finance. Finally, capacity building should also involve local SMEs. The project will build on lessons learned from similar instruments, such as the AGRI3 Fund and the Food Securities Fund.

Activities	Deliverables
A. Conduct capacity development needs assessment. In parallel with Output 1.2, assess which counterparts (private sector) and intermediaries (financial institutions) need capacity development and for what, as well as costs & delivery partners ? also linked to M&E. Ensure representative participation of women in needs assessment, and considerations on gender-sensitization.	List of counterparts and intermediaries by country & regional that may need capacity development and description of capacity development needs
B. Establish and disseminate a gender guideline in administering and managing funds. A gender guideline for administering and managing funds will be prepared in accordance to best practices observed in previous projects/studies and tailored according to the local context of Bangladesh, Cambodia, and Vietnam. The gender guideline will be adequately communicated and disseminated to fund managers, grant entities and revolving fund managers.	Gender guideline tailored to the context of the three countries
C. Develop and implement capacity development in collaboration with partners. Deliver training and other capacity development activities on accessing, administering, and investing the facility?s funds. Incorporate a module on gender-sensitization in the training, tailored to the local context of the beneficiaries from Bangladesh, Cambodia and Vietnam. Ensure that women, youth, and women agri-entrepreneurs benefit from the project?s capacity building and technical assistance	Capacity building delivered, including module on gender sensitization

158. Output 2.2: Partnerships will be established with local institutions and agricultural service providers to provide technical support and training to local stakeholders on climate-resilient practices, including those set out in the SRP standard, as well as organizational and financial skills. The project aims to harness the large network of its partners in the selected landscapes to establish partnerships. This will be done through Letters of Intent (LOIs), Memoranda of Understanding (MOUs) or other relevant instruments. These partnerships will lay the foundations for the provision of training and technical assistance to farmer groups, cooperatives, and producer organizations on managing and

investing finance effectively for climate resilience (e.g., organizational, business management skills, financial literacy, SRP), to enable them to access the Facility?s funds in the future.

159. It is envisaged that, once the Facility is established (i.e., after the end of the GEF project), additional technical assistance will be financed by the GCF grant facility or other sources to accompany the fund?s investments (see Figure 7 for the different components of the Facility). This technical assistance may involve, among others, setting up and building capacity of farmer organizations, developing capacity of local cooperatives and SMEs (including incubators/accelerators), training farmers on the SRP Standard and continuous improvement process, climate services and information and communications technology (ICT), developing landscape-level adaptation/ investment plans, and establishing water accounting and strengthening Water User Groups. It may also involve developing a pipeline of commercially viable high impact investment projects with verifiable adaptation and emissions reduction benefits. The potential use of FAO RuralInvest[249] (and associated training) for feasibility analyses will also be considered.

Activities	Deliverables
A. Identify partners for technical support to local stakeholders. Identify partners for the provision of technical support and training on climate-resilient practices and technologies for local stakeholders, including SRP, farmer organization, business management skills and financial literacy. Identify potential MOUs / Letters of Intent with Partner Organizations.	List of identified potential partners
B. Establish partnerships and initial provision of technical support / training. Establish agreements on capacity development and provision of technical training and extension services, including on SRP, and organizational and financial skill development. Ensure that women farmers, youth and women agri-entrepreneurs benefit from the project?s capacity building and technical assistance	Partnerships established and initial technical support/training provided (to be continued with separate sources of funding)

Component 3: Impact monitoring, governance, and learning and knowledge sharing

160. Under Outcome 3, the project will develop and implement harmonized program-wide impact monitoring, governance, adaptive learning, and knowledge sharing mechanisms. This will also include the definition of adaptation metrics for use in the mechanism, with potential for broader application, and user benchmarking (measuring the performance of the financial mechanism against other funds) and feedback mechanisms.

161. Output 3.1: The project will identify and establish adaptation metrics and key performance indicators (KPIs) for program M&E, impact and Environmental, Social and Governance (ESG) monitoring of the financial mechanism. This will build on the experience of UNEP?s KPI Directory, among others. Adaptation metrics will ensure that activities supported by the financial mechanism are truly climate resilient and deliver benefits to the most vulnerable, including women and Indigenous Peoples. This will draw from existing adaptation indicators such as those developed by the ICRISAT MEASURE tool[250], the SRP Standard and Performance Indicators[251], the GCF Adaptation Impact Indicators, FAO?s Tool for Agroecology Performance Evaluation (TAPE)[252] and Tracking Adaptation in Agricultural Sectors (TAAS)[253] (see also Table 2 above). Social impact could be measured using the wider framing of living incomes. Impact metrics will be developed at multiple levels (while considering their feasibility and cost-effectiveness), including:

- On-farm ? Monitoring at this level will enable the program to measure improvements in individual and community adaptive capacities, support benchmarking and potentially even trigger additional finance.
- Sub-project ? Monitoring the impacts of individual sub-project investments.

? Landscape ? Monitoring at the landscape level will ensure that the various investments contribute to building climate resilience at the landscape level and do not result in maladaptation.
? Financial institutions ? Aggregating data for reporting on the financial institutions? investments in ESG.
? Sub-national ? Aggregating data to understand how the Facility is contributing to national goals.
? Programmatic ? Fund/portfolio level contribution to LDCF/SCCF and other adaptation metrics and to the SDGs.

162. Based on this and in parallel with the eligibility criteria developed under Component 1, the project will develop a Theory of Change for the financing mechanism. The KPIs will also measure the amount of private sector finance mobilized as one of the indicators of success of the Facility.

163. Environmental, Social and Governance (ESG) indicators will measure the Fund?s performance against agreed environmental and social outcomes and will ensure that the Fund?s investments will not result in any negative environmental and social impacts. Hence, under this Output, the project will analyse safeguards issues for the financial mechanism and develop an ESG policy and a gender-responsive results framework. It will also develop a gender mainstreaming plan (incl. youth), stakeholder engagement plan, an accountability and grievance mechanism and other safeguard documents for the Facility in line with FAO, GEF and potential donor requirements, including IFC?s Performance Standards on Environmental and Social Sustainability (IFC PS)[254]. This will also involve Free, Prior and Informed Consent (FPIC) where the project involves Indigenous Peoples. Experiences from the ESG policies of the AGRI3 Fund[255], the Food Securities Fund[256] and other relevant funds will be taken into consideration. Finally, the governance arrangements between parties at international and local levels will be defined to establish how the funding will be managed. The project will also encourage adherence with the OECD?FAO Guidance for Responsible Agricultural Supply Chains[257], and will encourage the use of True Cost Accounting to enhance companies? social and environmental outcomes.

164. Opportunities to include a climate mitigation element and results-based financing (by quantifying mitigation co-benefits) will also be explored ? e.g., based on the existing AgResults program in Viet Nam and expanding SRP?s assurance program and in line with SRP Performance Indicator 8. *Greenhouse gas emissions* aiming to reduce methane and nitrous oxide emissions from rice cultivation. First, it is anticipated that mitigation will be an integral part of the blended finance facility and its criteria, i.e., the Facility would finance projects with adaptation and/or mitigation benefits. Second, the project will explore options for integrating results-based payments (from carbon credit buyers). Technical assistance, and/or loans to cover upfront investments, could be provided through the Facility, potentially laying the foundations for long-term revenue streams from carbon finance. Requirements for geospatial systems will also be analysed and linkages with ICRISAT?s MEASURE tool explored.

Activities	Deliverables
A. Adaptation metrics. In consultation with partners and stakeholders, develop long-list of adaptation metrics per region & country and justification, prioritization, and verification mechanisms, including linked to SRP. Mainstream gender into the adaptation metrics, eligibility criteria, as well as in the M&E framework. This will be closely linked with SRP Performance Indicator 12 on Women empowerment. The Women?s Empowerment Scorecard developed by SRP[258] will be used as a guidance for the project?s indicators, which measures, among others, women?s access to finance, training and decision-making.	Summary of recommended adaptation metrics and verification mechanisms suited for each country & region

B. Program M&E, impact and ESG monitoring. Develop Theory of Change for the financing mechanisms, based on indicators above. Define, institutionalize and regularly undertake program M&E, impact and ESG monitoring (including adaptation metrics and other key performance indicators for borrowers -including mitigation co-benefits).	Theory of change, indicators and processes for Program M&E, impact and ESG monitoring
C. Governance arrangements. Describe how the wider investment program (commercial & concessionary) funding will be managed ? i.e., governance arrangements between parties at an international & local level. MOUs / Letters of Intent with Financial Institutions.	Description of overall program governance arrangements at regional & national levels (3 countries), including timings, responsibilities, roles
D. Safeguards. Analyse safeguards issues for the financial mechanism (incl. link with ESG above). Develop gender mainstreaming plan (incl. youth), stakeholder engagement plan, accountability and grievance mechanism and other safeguard documents for the Facility as required.	Safeguards analysis including safeguards documents as required

165. Output 3.2: Under this Output, the project will develop and implement a knowledge management and communications strategy. Knowledge on the establishment of the financial mechanism will be captured and shared with relevant stakeholders nationally and regionally to support adaptive learning and scaling up. Knowledge products will also support the outreach to business partners and potential investors. For example, a guide could be developed for businesses on how to work with the Finance Facility ? what the opportunities are, how to access them, a summary of the criteria for projects etc. Additionally, the project will convene business partners and conduct advocacy/outreach on the financial mechanism and its scaling. The establishment of market linkages will also be promoted under this output, in close collaboration with partner initiatives.

Activities	**Deliverables**
A. Knowledge sharing. Develop and implement KM and communications strategy. Knowledge on establishment of the financial mechanisms is captured and shared in view of adaptive learning, replication and scaling. Include gender-specific considerations in the development of knowledge products.	Description of knowledge materials & uses (including website). KM and communications materials

B. Convening, advocacy and market linkages. Convening of and outreach to business partners on the financial mechanism and its scaling, including to establish market linkages at national, regional, and global levels.	Report on advocacy and engagement of business partners, including potential pipeline projects and market linkages

166. Output 3.3: Project monitoring and evaluation and adaptive learning undertaken.

Activities	Deliverables
A. Project M&E. Conduct regular M&E of the GEF grant as a basis for the project?s adaptive learning and management. Reporting to FAO. Monitor implementation of the Gender Action Plan and gender indicators. Collect sex- and age-disaggregated data where relevant.	Project progress reports in line with the project?s M&E Plan.

167. Project Management: Overall project coordination. A regional PMU will be established. In addition, at the beginning of the project, national-level technical working groups will be established (1 per country) to ensure engagement of and ownership by national stakeholders. Regular meetings will be organized through the outputs above.

Activities	Deliverables
A. Overall project coordination. Adaptive planning and management, safeguards / ESS, stakeholder engagement and gender for the GEF grant. Ensure implementation of the Gender Action Plan and Stakeholder Engagement Plan.	Inception report
B. Technical working groups (national-level). Establish cross-sectoral/ cross-ministerial working group in each country (involving Ministries of Agriculture, Environment, Finance/State Banks, and other relevant stakeholders including civil society and private sector, SRP national chapter stakeholders, FAO country offices, farmer representatives/networks, the Vietnam Environment Protection Fund (VEPF), etc.) and organize regular meetings (through the outputs above). Ensure female representation in the cross-sectoral working groups.	Meeting minutes

4) Alignment with GEF focal area and/or Impact Program strategies and FAO comparative advantage

Alignment with GEF focal area strategies

168. The project will support the establishment of a new blended finance facility to catalyse public and private sector investment to scale up adaptation and resilience-building in rice landscapes across Asia. It thereby directly contributes to LDCF/SCCF Strategy Objectives 1 and 2, including in relation to innovative financial instruments and investment models to enhance resilience, as well as mainstreaming of adaptation considerations into investments. Specifically, the project contributes to the following LDCF outcomes and outputs:

? LDCF Outcome 1.1: Technologies and innovative solutions piloted or deployed to reduce climate-related risks and/or enhance resilience

- Output 1.1.1 Physical and natural assets made more resilient to climate variability and change. By fostering investments in climate-resilient rice landscapes, the project will make the rice landscapes (in particular, agricultural land) more resilient to climate change.
- Output 1.1.2 Livelihoods and sources of income of vulnerable populations diversified and strengthened: The project will contribute to diversified and strengthened livelihoods by supporting enhanced access to finance and adoption of technical solutions.

? LDCF Outcome 1.2: Innovative financial instruments and investment models enabled or introduced to enhance climate resilience

- Output 1.2.2 Investment models developed and tested: The project will develop and test an innovative financing mechanism aimed at catalysing financing from public and private sources.

? LDCF Outcome 2.2: Innovative financial instruments and investment models enabled or introduced to enhance climate resilience
  - Output 2.2.1 Barriers to climate finance access targeted
  - Output 2.2.2 Adaptation and resilience relevant financing coordinated for synergistic programming including with the private sector

? LDCF Outcome 2.3: Institutional and human capacities strengthened to identify and implement adaptation measures
  - Output 2.3.1: Number of people trained regarding climate change impacts and appropriate adaptation responses

FAO comparative advantage

169. FAO is recognized globally for its work in addressing the root causes of hunger, food insecurity and malnutrition, including the challenges to natural ecosystems and food systems posed by climate change. FAO is a well-known source of knowledge and of technical expertise to deploy climate-resilient agriculture and improved management practices such as conservation agriculture, agroforestry, and water management. Additionally, FAO together with its partners is leading the regional Sustainable Rice Landscapes Initiative (SRLI) and is a member of the Sustainable Rice Platform (SRP).

170. The project is aligned with FAO?s Strategic Framework (2022-2030) and its *four betters*: Leaving No One Behind through sustainable, inclusive, and resilient food systems for better production, better nutrition, a better environment, and a better life. In particular, the project contributes to BE3: Biodiversity and ecosystem services for food and agriculture; BL1: Gender equality and rural women?s empowerment; BL2: Inclusive rural transformation; and BL5: Resilient agri-food systems.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

171. The budget from LDCF/SCCF for this 3-year project is USD 1,000,228. This builds upon ongoing GEF/LDCF investment in SRLI projects of around USD 58 million and is expected to leverage around USD 3.5 million in co-financing to support the design and structuring of the financial mechanism. Additionally, through the project?s interventions, it is anticipated that around USD 500 will be leveraged in future public and private sector investment in the Facility, including from the Green Climate Fund (GCF) and other public and private investors.

172. In the baseline scenario, similar financing mechanisms and investments would be developed and implemented. However, these would lack the specific focus on rice and addressing specific challenges and gaps in financing in the rice sector. A de-risking mechanism and additional financing would not be mobilized, and there would be a lack of proven investments in climate-resilient rice landscapes and value chains to contribute to the body of knowledge and the transition towards climate-

resilient technologies. Farmers (in particular women and vulnerable groups), private companies and financial institutions would not benefit from associated capacity building. Without GEF investment, it would take considerably longer for existing market barriers to be removed and access to finance for adaptation in rice landscapes would remain limited.

173. With the GEF investment, significant momentum will be created to provide the necessary finance required for adaptation in the rice sector. GEF incremental resources will cover the following:

- ? **Facilitate and advise on the structuring, establishment, and management of the package** of interrelated financial instruments described above based on real financing needs within the specific landscapes and regionally, which will support the scaling up of adaptation practices;
- ? Provide technical assistance (TA) support for **defining and applying financing eligibility criteria**, based on considerations of potential to deliver adaptation and resilience benefits (and mitigation co-benefits);
- ? Provide TA support to identifying value chain wide **management options and technologies** capable of optimizing adaptation benefits;
- ? Develop **harmonized programme-wide impact monitoring and adaptive learning**, including the definition of adaptation metrics for use in the mechanism, with potential for broader application, and user benchmarking and feedback mechanisms;
- ? **Strengthen capacities of stakeholders along the finance supply chain** (including national production sector institutions, farmer federations and national financial institutions) to access, administer and invest funds (commercial, revolving and/or grant) effectively.

174. The project?s co-financing will contribute to capacity building on the technical options (such as SRP), advocacy with partners, leveraging partnerships and linking with potential financiers and downstream market actors, as well as providing monitoring and evaluation frameworks. Specifically, the co-financing will contribute to (1) the identification of an investment pipeline and potential working capital for an initial rice transaction in the region under Component 1, (2) relevant technical knowledge of adaptation solutions in rice landscapes, (3) the capacity building efforts under Component 2, and (4) the development of indicator frameworks under Component 3.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

175. The project will result in the following adaptation benefits. Firstly, by supporting the establishment of a financing mechanism for climate-resilient rice landscapes, it will enable investments that will reduce the vulnerability of people, livelihoods, physical assets, and natural systems to the adverse effects of climate change through transfer of technologies and innovative practices for adaptation. Secondly, it will help to mainstream climate change adaptation and resilience in financing for systemic impact and will contribute to strengthening institutional and human capacities to identify and implement (or finance) adaptation measures. It is estimated that the future investment under the fund will benefit up to 1 million people who are engaged in the rice sector[259] and depend on rice landscapes and deliver adaptation benefits over an area estimated at between 2 and 4 million ha[260]. More specifically, the project will result in the following outputs:

LDCF/SCCF Outcome / Output	LDCF/SCCF Indicator	Project target
Objective 1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation		
Outcome 1.1: Technologies and innovative solutions piloted or deployed to reduce climate-related risks and/or enhance resilience		

Output 1.1.1: Physical and natural assets made more resilient to climate variability and change	Total no. of direct beneficiaries from more resilient physical and natural assets Area of land managed for climate resilience (ha)	**12,000** (50% women[261], 25% youth[262]) as a result of the trainings below (SRP and other partners) (assuming that at least 50% will apply improved practices after receiving the training, and that an average of 4 household members per farmer household will benefit from the improved practices, 3,000 x 4) **1,500 ha** (average of 0.5 ha per farmer household)
Output 1.1.2: Livelihoods and sources of income of vulnerable populations diversified and strengthened	Total no. of direct beneficiaries with diversified and strengthened livelihoods and sources of income (m/f)	N/a (covered by the above to avoid double-counting)
Outcome 1.2: Innovative financial instruments and investment models enabled or introduced to enhance climate resilience		
Output 1.2.2: Financial instruments or models to enhance climate resilience developed i	Financial instruments or models	1
I Note: Core Indicator 3 on Policies/plans that mainstream climate resilience is not applicable to this project as it refers to national and subnational policies/plans (lines 104 and 154 in the tracking tool). Instead, the indicator ?Financial instruments or models to enhance climate resilience developed? (line 94 in the tracking tool) has been used.		
Objective 2: Mainstream climate change adaptation and resilience for systemic impact		
Outcome 2.2: Adaptation considerations mainstreamed into investments		
Output 2.2.1: No. of institution(s) with increased ability to access and/or manage climate finance	No. of institution(s)	6-9 (2-3 per country; financial institutions or private sector entities)
Output 2.2.2: Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance	No. of mechanism(s)	1
Outcome 2.3: Institutional and human capacities strengthened to identify and implement adaptation measures		

Output 2.3.1: Number of people trained regarding climate change impacts and appropriate adaptation responses	Total no. of people trained	**6,250** (50% women262, 25% youth), composed of: ? Financial institution staff trained directly by the project[263]: 250 (50% women) ? Farmers and other stakeholders trained on SRP Standard (through SRP co-financing and networks): 5,000 (50% women) ? Farmers and other stakeholders trained through other partners[264] (to be identified under Output 2.2): 1,000 (50% women)

176. Additionally, the project will have co-benefits in the areas of biodiversity, land degradation and climate change mitigation, as well as socio-economic benefits. Biodiversity benefits will be achieved by promoting investment in sustainable agriculture practices in line with the SRP Standard, such as to reduce agrochemical use, avoid land conversion and contribute to the conservation of key biodiversity indicator species. Land degradation benefits will be achieved by investing in improving land and water use, reducing chemical use, and improving soil fertility, which will contribute to improved agro-ecosystem services in the target landscapes. Finally, climate change mitigation benefits will be derived by investing in technologies that will reduce chemical use and improve water management, which will reduce nitrous oxide and methane emissions; as well as by increasing soil organic carbon.

7) Innovativeness, sustainability, potential for scaling up and capacity development

177. ***Innovativeness.*** The project is innovative as it is the first financial mechanism globally specifically targeting rice landscapes and value chains. It is also innovative through the following elements:

? A **suite of interrelated and complementary financial instruments** building upon an established multi-sector partnership and baseline, addressing diverse needs and risk profiles, with a commercially sustainable and de-risked bond facility at its core, accompanied by catalytic funding to remove key obstacles to viability;
? An **innovative framework of metrics** to define and monitor sustainable rice farming, represented by the SRP Standard, the world?s first voluntary rice sustainability standard, together with Performance Indicators mapped to the SDGs.
? A focus on farming, value chain and landscape management systems capable of **simultaneously delivering adaptation and mitigation benefits** (opening the door for mitigation-tied carbon credits to contribute to the funding of adaptation).
? A mutually beneficial programmatic partnership involving multiple actors, in which:
- Resources from the ***LDCF/SCCF Challenge Program*** will catalyse the establishment of the package of financial instruments;
- Anticipated ***GCF resources*** will leverage adaptation impact, de-risk the RRL Facility, contribute to its capitalization, and fund revolving and non-returnable grant facilities;
- ***Public and private investors*** will provide the bulk of the capitalization of the Facility;
- A ***regional and/or global financial institution*** will administer the Facility on a commercial basis;
- ***GEF and LDCF will finance SRLI projects*** in the region[265]: the Facility will help to meet the financing needs of these projects? beneficiaries while the SRLI projects will

provide production-focused TA to ensure that the RRL Facility investments translate into reliable adaptation (and other) benefits on the ground;

- ***SRLI partners[266]*** will optimize the effectiveness of the model in delivering adaptation (and other) impacts, through the contribution of technical inputs as needed across the project in accordance with their respective areas of technical specialization.

178. ***Sustainability.*** The project will deliver sustainable and durable impacts in the targeted rice landscapes and beyond. Firstly, financial and economic sustainability will be ensured by establishing a financial mechanism that will provide targeted support in climate-resilient technologies and practices that are considered financially sustainable and providing economic returns in the future, while requiring some initial de-risking, technical assistance or concessional or grant financing. The financial mechanism primarily consists of returnable loans, which will make the instrument financially sustainable and self-sufficient following initial investment. The project will also support strengthening of the demand side, such as by working with aggregators and retailers, to ensure sustainability of the value chains. Secondly, the project will ensure environmental sustainability by investing in sustainable, resilient technologies that are biodiversity-friendly and address land and environmental degradation. The project will also contribute to institutional sustainability by strengthening national financial institutions? capacities to implement the financing mechanism and foster investments in climate-resilient rice. Finally, social sustainability will be ensured by strengthening producer institutions, and farmers?/organizations? capacities to manage and invest finance effectively; by investing in local farmers? livelihoods; as well as by putting in place environmental, social, and governance (ESG) criteria for the fund.

179. ***Potential for scaling up.*** The project will initially be implemented in the three rice-producing countries Bangladesh, Cambodia, and Viet Nam. However, the financial mechanism will be regional in scope and will eventually target rice producing countries throughout Asia. Details on the timeline and mechanisms of including additional countries will be elaborated during project implementation. Additionally, it is envisaged that in the future the model may be scaled out to other important rice producing regions globally, such as West Africa. This regional and global scope will optimize cost-effectiveness and facilitate the engagement of relevant private sector stakeholders, companies, and investors, across the region and beyond, and builds on the strong basis of regional collaboration established to date by the SRLI including the SRP networks, National Chapters and downstream market actors. It is anticipated that the project will catalyse significant investment in the transformation of the rice sector and rice landscapes towards resilience and that the investment model itself can be replicated and scaled up at national, regional, and global levels.

180. ***Capacity development.*** Capacity development is an integral part of the project. As explained above, the project will strengthen national financial institutions? capacities to implement the financing mechanism and foster investments in climate-resilient rice. Furthermore, Component 2 is dedicated to building capacity of counterparts (borrowers, local companies, etc.), intermediaries (local banks, financial institutions), farmers? organizations and women and men farmers through partnerships and by implementing capacity building programs.

8) Summary of changes in alignment with the project design with the original PIF

181. No significant changes were made to the project design. The main adjustments are highlighted below.

Topic	Main changes from PIF stage
1) Co-financing	No changes were made, and the relevant co-financing letters have been obtained.

2) Institutional arrangements	In the PIF, ?WBCSD and other partners? were indicated as executing agencies. Based on discussions with WBCSD related to the practical aspects of project implementation, it was decided that the Sustainable Rice Platform (SRP) would have the lead executing role through Operational Partners Agreement (OPA) with FAO (pending FAO internal approvals). WBCSD and other partners, including the Government ministries in the three countries, will be engaged through sub-contracts or LOAs, or through in-kind involvement.
3) Core Indicator targets	No major changes were made to the Core Indicator targets. Core Indicator 2 target (Area of land managed for climate resilience) was reduced from 3,000 ha to 1,500 ha given that an average of 0.5 ha per farmer is considered more realistic. Core Indicator 4 target (No. of people trained) was slightly reduced from 6,500 to 6,250 based on a more realistic assessment.
4) Outputs and Outcomes	No major changes were made to the Output and Outcome wording. The following small changes were made: ? In Outcome 1 wording ?producers, value chain actors and governments? was changed to ?producers and other value chain actors? since producers and governments are also value chain actors. ? Mitigation co-benefits were added to the output wording in Outputs 1.1 and 1.3 as suggested by stakeholders during the consultations (as had been already included in the output description). ? Output 1.1 was changed from ?Technical funding needs.? To ?Technical options requiring financing.? To make the differentiation with Output 1.2 clearer. ?Gender-sensitive? was added to Outputs 1.1 and 1.2 to ensure the identified options are gender-sensitive. ? Output 1.4 ?estimated? was added in the output wording to reflect that the USD 500 is an approximate figure based on current estimates. ?Financial mechanisms designed and an estimated USD 500 million in public and private financing identified.? The work plan and activities for each output were elaborated in more detail through consultations with stakeholders. Stakeholder inputs have been incorporated as described in Annex I2.

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[184] As of 2012, the Vietnamese commercial bank system included 5 state-owned commercial banks, 34 joint-stock commercial banks, 4 joint-venture banks, 35 branch offices of foreign banks and representative offices, 6 financial companies and foreign banks.
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[185] https://www.sustainablerice.org/
[186] French Agricultural Research Centre for International Development.
[187] https://www.sustainablerice.org/moa-signed-to-support-establishment-of-cambodia-national-chapter/
[188] https://www.sustainablerice.org/srp-training-programme/
[189] https://www.sustainablerice.org/brand-positioning-in-europe/ (June 2022)
[190] Financing Sustainable Rice in Vietnam: A Roundtable Discussion (*unpublished*). September 2021.
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[193] https://www.marketlinks.org/sites/default/files/resource/files/DFSProductInnovation2_Oct2016.pdf
[194] https://www.ificbank.com.bd/business/sub-product/ific-krishi-shilpo
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[197] https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=17450 (retrieved Dec 2021)
[198] https://www.gafspfund.org/projects/strengthening-farmer-resilience-cambodias-rice-paddies (retrieved Dec 2021)
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[201] https://cambodia.wcs.org/About-Us/Latest-News/articleType/ArticleView/articleId/9170/Wildlife-Friendly-Ibis-Rice-Received-International-Recognition.aspx (published Aug 2016)
[202] https://greeninvestasia.com/usaid-facilitates-working-capital-loan-debt-facility-for-ibis-rice-in-cambodia/ (published Dec 2020)
[203] https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/impact-stories/vietnam-cultivating-rice-and-sustainable-farming-practices (published Jul 2019)
[204] https://psav-mard.org.vn/public-private-partnership-in-rice-sector-%EF%BF%BDpromitng-sustainable-value-chain.html
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[206] https://www.gafspfund.org/about (retrieved Dec 2021)
[207] https://www.worldbank.org/en/news/press-release/2021/12/07/global-agriculture-and-food-security-program-puts-farmers-first (published Dec 2021)
[208] https://www.gafspfund.org/projects/increasing-access-finance-farmers-organizations-bangladesh
[209] https://greeninvestasia.com/
[210] https://www.fao.org/hand-in-hand/en/
[211] https://www.fao.org/in-action/rural-invest/en/
[212] https://www.unep-wcmc.org/resources-and-data/land-use-financing-positive-impact-indicators-directory-version-11 and https://www.unep.org/es/node/28030 (retrieved February 2022)
[213] https://agri3.com, https://www.tlffindonesia.org, https://www.andgreen.fund, https://www.restorationfacility.org, https://goodfood.finance, and https://programs.bridgeforbillions.org/restoration-factory-program
[214] https://www.thegef.org/projects-operations/projects/10322
[215] https://thefinancialexpress.com.bd/national/brri-undertakes-project-for-sustainable-rice-farming-1509130569 (published Oct 2017)
[216] https://www.thai-german-cooperation.info/en_US/market-oriented-smallholder-value-chains-msvc/ and https://www.thai-german-cooperation.info/wp-content/uploads/2019/06/Factsheet_STA_Olam_GIZ.pdf
[217] https://www.sustainablerice.org/assurance-scheme/
[218] https://www.unep-wcmc.org/resources-and-data/land-use-financing-positive-impact-indicators-directory-version-11
[219] See also https://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/documents/Principle_5_Guidance_Note_and_Background.pdf
[220] https://agri3.com/impacts-and-es-framework
[221] http://www.fao.org/3/ca7407en/CA7407EN.pdf
[222] The ten core dimensions are: 1) Secure land tenure, 2) Productivity (and stability over time), 3) Income (and stability over time), 4) Added value, 5) Exposure to pesticides, 6) Dietary diversity, 7) Women?s empowerment, 8) Youth employment, 9) Agricultural biodiversity, 10) Soil health.
[223] FAO (2017). Tracking adaptation in agricultural sectors: Climate change adaptation indicators.
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[225] https://climateasap.org/the-asap-taxonomy/
[226] https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/ppcr_en_monitoringreporting_toolkit.pdf
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[228] http://pdf.wri.org/making_adaptation_count.pdf
[229] https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.STAP_.LDCF_.SCCF_.22.Inf_.01_M%26E_of_CCA.pdf
[230] https://www.fao.org/climate-smart-agriculture-sourcebook/enabling-frameworks/module-c9-monitoring-evaluation/c9-overview/en/
[231] https://ccafs.cgiar.org/resources/tools/csa-programming-and-indicator-tool#.V1_5fruLTRY
[232] The Monitoring and Evaluation of Agri-Science Uptake in Research and Extension (MEASURE) is a mobile web-based platform designed to collect real-time, geotagged data about farmers, farmland, livestock, other on-field interventions, and other key indicators of agriculture research and extension. Originally developed as a field data-collection tool, MEASURE has now transformed into a full-

fledged M&E platform to track activities, manage beneficiaries and provide real-time insights through visually enabled dashboards to the project teams. https://bigdata.cgiar.org/icrisat/ and http://measure.icrisat.org/

[233] It is envisaged that in the future the model may be scaled out to other important rice producing regions globally, such as West Africa.

[234] A funded guarantee is capital set aside by a third party that will be used in case of default by the borrower. A subordinated tranche is a loan tranche that absorbs losses in the event of borrower default, i.e., creditors who own subordinated debt will not be paid until more senior tranches are paid in full.

[235] For example, by working through rural women?s groups/loan groups/agricultural cooperatives.

[236] This may involve public and private actors, incl. supporting actors (details to be elaborated as part of the design of the financing mechanism).

[237] Louman, B. et al. (2022). Access to Landscape Finance for Small-Scale Producers and Local Communities: A Literature Review. Land 2022, 11, 1444. https://doi.org/10.3390/land11091444

[238] GSSD (2016). Promoting Private Sector Contributions to the Climate Change Response in Cambodia.

[239] The so-called Scope 3 emissions such as under the Science Based Targets initiative (SBTi)?s Net-Zero Standard.

[240] A lower percentage may apply in Bangladesh given the local context. Active engagement of women will nevertheless be sought.

[241] Aged 15-30 years old.

[242] Estimated on the basis of the 868,200 beneficiaries (men and women) of GEF-7 SRLI projects in Cambodia, China, India, Indonesia, Thailand and Viet Nam (see Appendix 1). This only represents an estimate, as the future Facility may invest in other landscapes than those indicated here.

[243] Estimate to be further confirmed during project implementation: the final figure will be subject to beneficiary demand as the model will be demand-driven.

[244] May involve rice and other crops/commodities in rice landscapes.

[245] Including domestic funding mechanisms, e.g., environmental funds.

[246] https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1382060/

[247] https://www.ifc.org/wps/wcm/connect/90f4efde-ba09-477b-9de5-ed13b0091b7d/202103-IFC-Integrity-Due-Dilligence-Process.pdf?MOD=AJPERES&CVID=nvVYyTU

[248] Taking into account that women-led enterprises may have lower capability to show assets as collateral for accessing loans.

[249] https://www.fao.org/in-action/rural-invest/en/

[250] https://bigdata.cgiar.org/icrisat/ and http://measure.icrisat.org/

[251] https://www.sustainablerice.org/resources/

[252] https://www.fao.org/agroecology/tools-tape/en/ and https://www.fao.org/3/i8145e/i8145e.pdf

[253] https://www.fao.org/3/i8145e/i8145e.pdf

[254] https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards

[255] https://agri3.com/impacts-and-es-framework and https://www.idhsustainabletrade.com/landscapes/agri3-fund/

[256] https://www.vistra.com/sites/default/files/2022-03/220223%20FSF%20ESG%20Policy%5B9%5D.pdf

[257] OECD/FAO (2016), OECD-FAO Guidance for Responsible Agricultural Supply Chains. http://dx.doi.org/10.1787/9789264251052-en

[258] https://www.sustainablerice.org/wp-content/uploads/2021/10/203-SRP-Performance-Indicators-Version-2.1.pdf

[259] Estimated on the basis of the 868,200 beneficiaries (men and women) of GEF-7 SRLI projects in Cambodia, China, India, Indonesia, Thailand and Viet Nam (see Appendix 1). This only represents an estimate, as the future Facility may invest in other landscapes than those indicated here.

[260] Estimate to be further confirmed during project implementation: the final figure will be subject to beneficiary demand as the model will be demand-driven.

[261] A lower percentage may apply in Bangladesh given the local context.

[262] Aged 15-30 years old.

[263] As a result of Output 2.1. Estimated 30 staff per financial institution/private sector, total of 6-9 institutions (2-3 per country).
[264] On climate-resilient practices, SRP, and organizational and financial skills, as described under Output 2.2.
[265] Projects currently under implementation under GEF-7, and potentially GEF-8.
[266] Especially FAO, GIZ, UNEP and IRRI.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Location	Estimated Coordinates ? Lat/Long[1]
Bangladesh	N 24? 0' 0" E 90? 0' 0"
Cambodia	N 13? 0' 0" E 105? 0' 0"
Viet Nam	N 16? 10' 0" E 107? 50' 0"

Maps[1]

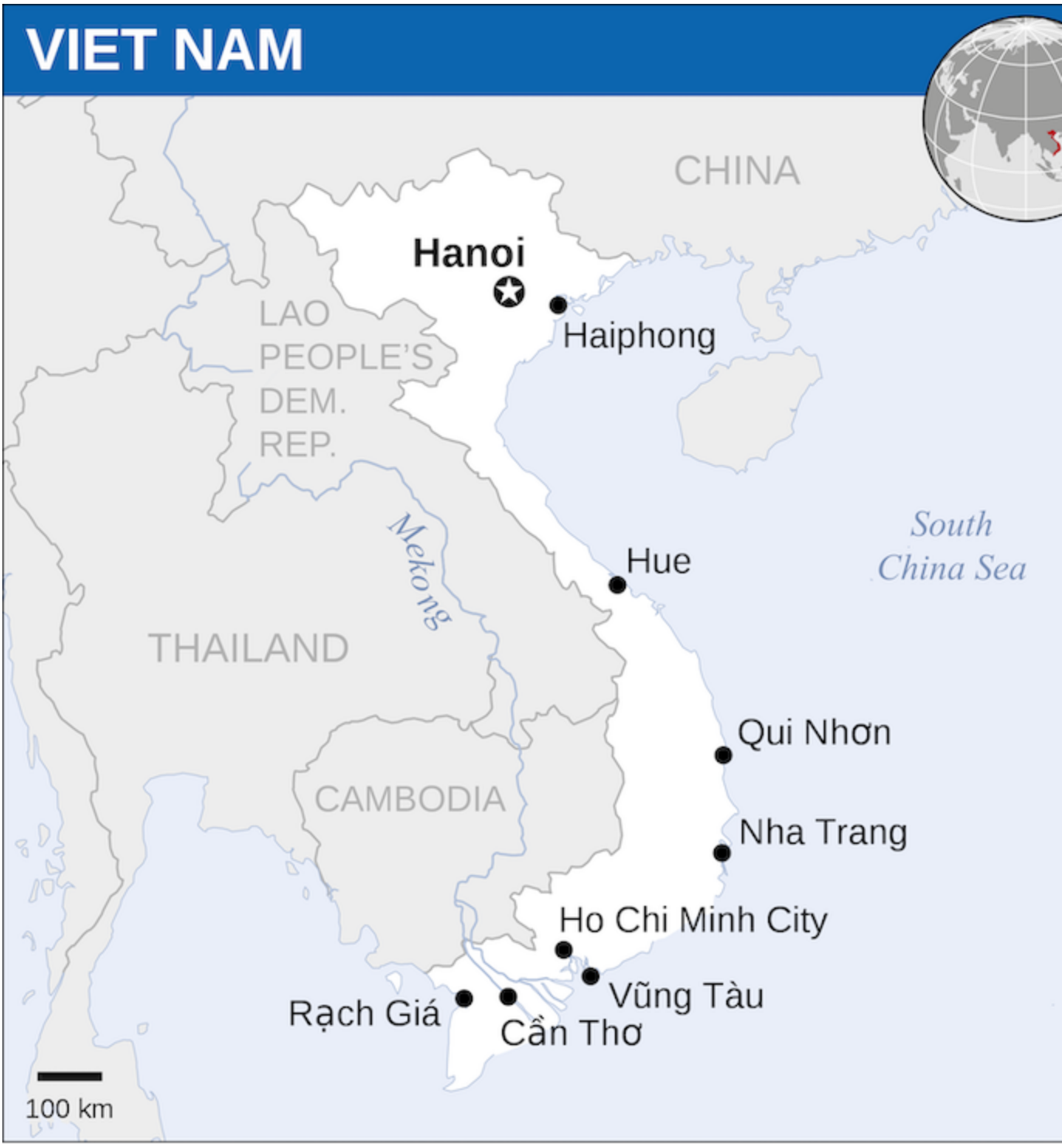
Bangladesh

Map No. 3711 Rev. 2 UNITED NATIONS
January 2004

Department of Peacekeeping Operations
Cartographic Section

Cambodia

Viet Nam



[1] Source: https://www.un.org/, https://www.unocha.org/. Note: The boundaries and names shown and the designations used in these maps do not imply the expression of any opinion whatsoever on the part

of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

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[1] Coordinates are from http://www.geonames.org/.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

n/a

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

1. Initial consultations with private sector, including international financial institutions (IFIs), banks, rice buyers, traders, and millers were held during the development of related GEF-7 projects in Bangladesh, Cambodia, and Viet Nam. Consultations with civil society, farmers organizations and Indigenous Peoples were also held during the development of these related projects. Additional consultations were held (mostly through online consultations) with SRLI partners during the PIF development, including WBCSD, UN Environment Programme, FAO, the Sustainable Rice Platform (SRP), the German Agency for International Cooperation (GIZ) and the International Rice Research Institute (IRRI). Potential fund managers and/or financing partners were also consulted, including the International Finance Corporation (IFC), the Green Climate Fund (GCF), and GEF. Experts from Clarmondial AG, a partner of SRP and the executing partner of Conservation International GEF-7 NGI Food Securities Fund project, was also consulted and provided expert advice on the project design. Finally, private sector stakeholders were consulted during the roundtable discussions organized by the SRLI in 2021.

2. During the project preparation grant (PPG) phase, more detailed consultations were held with stakeholders to collect relevant baseline information and seek inputs on the project design. These stakeholders included representatives from international organizations, civil society, private sector, international and national financial institutions, farmers organizations, women and men farmers, Indigenous Peoples, and research institutes. This was done through PPG inception and validation workshops as well as individual consultations via face-to-face or online meetings. A detailed Stakeholder Analysis and Stakeholder Engagement Plan is included in Annex I2. A summary list of key stakeholders is provided below.

Name of Institution	Proposed role in the project / the financial mechanism	Means of engagement
1. National Governments (Ministries of Environment, Agriculture, Industry, Economy and Commerce, Finance/State Banks, etc.); subnational Governments	Ensure alignment with national priorities and policies in adaptation financing	Regular consultations during project preparation and implementation
2. National financial institutions and banks, including GCF accredited entities	Intermediaries	Detailed consultations during project preparation to discuss and define potential roles
3. International financial institutions and private investors	Providers of capital, fund manager	Consultations during project preparation and implementation
4. Civil society organizations, national and international NGOs	Provision of technical assistance, consulted on local level adaptation and financing needs	Consultations during project preparation and implementation, potential partners or service providers
5. Local communities, Indigenous Peoples, community-based organizations (CBOs)	Beneficiaries	Consultations during project preparation and implementation This will also involve Free, Prior and Informed Consent (FPIC) where the project involves Indigenous Peoples.
6. Farmers associations, producer groups, agricultural cooperatives, farmer groups	Beneficiaries	Consultations during project preparation and implementation
7. International and national private sector stakeholders including producers, processors, traders, and buyers	Counterparts (borrowers, beneficiaries)	Consultations during project preparation and implementation
8. Research institutions and universities	Potential partnerships for provision of technical assistance	Consultations during project preparation and implementation
9. UN agencies and development partners	Potential partnerships for provision of additional concessional financing	Consultations during project preparation and implementation

3. *Indigenous Peoples*. In the Bangladesh GEF-7 LDCF project, Indigenous People live in project areas, particularly in the Chittagong Hill Tracts. In Cambodia, the GEF-7 LDCF project target areas in the Tonle Sap area include indigenous ethnic minority groups, who will be part of the project?s beneficiaries. In the Viet Nam GEF-7 FOLUR project target provinces, at least 10% of the selected target communities (in terms of their area and population) have a majority of Khmer or Cham inhabitants. Detailed analyses were conducted, and Free, Prior and Informed Consent (FPIC) procedures included in these projects. Necessary safeguards measures will be put in place as part of the financial mechanism (which may invest in additional landscapes going beyond the GEF-7 projects). The project will ensure that Indigenous Peoples equally benefit from the activities and from the Fund?s

investments, that FPIC requirements are met, and that any negative impacts on Indigenous Peoples (and other vulnerable groups) are avoided. Please refer to Annex J for more details.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

1. The table below summarizes the main methods for consultation and engagement of different stakeholder groups during project implementation, at regional, national, and local levels. Knowledge management activities under Component 3 will ensure meaningful participation by all target stakeholders, and dissemination of relevant and timely knowledge, good practices and lessons learned. In addition, a grievance redress mechanism has been defined for project stakeholders (see Annex I3).

Stakeholder group	Methods for consultation and engagement	Frequency
1. Project partners	The following methods will be the main channels for communication with the key project partners. ? Email, phone, text messages and virtual/face-to-face meetings ? Workshops ? Project reports ? Project knowledge products and website	At least quarterly with key project partners
2. National and subnational government	The following methods will be the main channels for communication with government stakeholders. ? Email, phone, text messages and virtual/face-to-face meetings ? Workshops ? Project reports ? Project knowledge products and website	At least quarterly with national government counterparts
3. Local communities and community groups, including Indigenous Peoples, women, youth, and vulnerable groups	The project will communicate with local communities mainly through the project?s national coordinators, partners, and local government. The main channels used will be face-to-face meetings, phone calls and text messages. This will also involve Free, Prior and Informed Consent (FPIC) where the project involves Indigenous Peoples.	Continuous
4. Civil society and academia/research institutions	The main channels used for communication with civil society and academia/research institutions are the following: ? Email, phone, text messages, meetings ? Workshops	At least bi-annually; some organizations more frequent if they will be contracted by the project
5. Private sector, financial institutions	Private sector actors and financial institutions will be engaged primarily through meetings, workshops, phone calls and text messages.	At least bi-annually; some organizations more frequent if they will be contracted by the project

6. Regional and international organizations, development partners	Regional and international organizations and development partners will be kept informed through the project?s knowledge products and website, as well as workshops and participation in events. Exchange of knowledge with other initiatives, in particular GEF-funded projects, will be fostered by the project.	At least annually

5. In the annual project reports, the project implementation team will report on the following indicators:

1) Number and diversity of stakeholders ? government agencies, civil society organizations, private sector, vulnerable groups, women, and other stakeholder groups that have been involved in the project implementation phase and their level of engagement/participation.

2) Number of engagements (such as meetings, workshops, official communications) with stakeholders during the project implementation phase.

3) Number of grievances received and responded to/resolved (see Grievance Redress Mechanism in Annex I3).

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

1. A Gender Analysis and Action Plan was developed during the PPG phase to understand the gender-differentiated roles, responsibilities and knowledge and identify project activities that will contribute to gender equality and women?s empowerment. Please refer to separate Annex N. A summary is provided below.

2. *Gender dimensions.* Women?s contribution to agricultural production in Asia and across the globe is widely recognized. Women in South Asia and in Southeast Asia contribute up to 80% and 60% of the required labour, respectively. [1] However, their contribution is often underestimated and underrepresented in official data as it is mostly informal and unpaid. Also, women?s access to land and productive assets is lower than men?s. Access to credit is often a limiting factor for women smallholder

farmers for several reasons including social norms, lack of assets that can be used as collaterals, lower education or literacy rates, among others.[2] A study conducted in 2013 found that in South and Southeast Asia, only 1% of smallholders? credit needs for longer term investments are met. Women, low-income groups, and ethnic minorities face even larger challenges to meeting their finance needs.[3] Enhancing women?s opportunities and income in the agriculture and rural sector is crucial in efforts to enhance productivity, nutrition, and reduce poverty.

3. In Bangladesh, women?s participation in the agriculture sector is 64.4%; however, as of 2017 they owned only 2-4 % of agricultural land, with little or no access to extension services and information about innovative technologies. Women?s activities in the agriculture sector include, among others, post-harvest processing, livestock and poultry rearing, household agriculture, horticulture, food processing and selecting and storing seeds. A large percentage of rural women are unpaid family workers.[4],[5] Women?s role in production and their contributions is not well recognized due to cultural norms, and these norms prevent women from owning land and limits their access to and control over inputs, capital, markets, information, and other agricultural assets. Additionally, while women are highly engaged in homestead agricultural activities, they have constrained access to high quality seeds, inputs, and to markets to sell surplus produce.[6]

4. In Cambodia, inequalities exist in terms of agricultural land ownership, land size, and cultivated land. With regard to accessing loans, the ratio of male-headed to female-headed agricultural households is 5:1, meaning that female-headed households are much less likely to access loans.[7] Additionally, current agricultural systems in Cambodia unduly burden and limit the options of women, women-led households, and the elderly, in particular due to the out-migration of working-age men from rural communities. The roles of women have drastically expanded, often in ways that increase their personal and household vulnerabilities.[8]

5. In Viet Nam, gender inequalities in agriculture, food and nutrition security are visible in labour and in access to resources (land, finance, technology, training, and markets) and agricultural extension services. Women constitute a critical workforce in agricultural production, especially in rural areas, where 63.4% of working women are in agriculture compared to 57.5% of working men. Women in Viet Nam are involved in agricultural labour but are also burdened with unpaid care work. This burden limits women?s capacity to improve their knowledge and skills around new technologies. Furthermore, women are also more likely to work on smaller farms and to cultivate subsistence crops.[9] In the Viet Nam GEF-7 project target area, more than 20% of the households are female-headed: female household heads are on average older than is the case with men, and female-led households have fewer members, both of which factors imply reduced availability of labour resources. In addition, overall, women have less free time than men, outside of their productive and reproductive roles. Options for increasing women?s access to employment and income through the project should therefore focus on those with low demands for time and labour resources.[10]

6. *Plans for gender-responsive project design and implementation*. During project implementation, the project will develop a gender mainstreaming plan (incl. youth) for the Finance Facility, to ensure that women smallholder farmers equally benefit from the facility and that it addresses women?s specific needs and vulnerabilities to climate change. This will be closely linked with SRP Performance Indicator 12 on Women empowerment. The Women?s Empowerment Scorecard developed by SRP will be used as a guidance for the project?s indicators, which measures, among others, women?s access to finance, training, and decision-making. Additionally, to accelerate financial inclusion, the project will ensure that youth and women agri-entrepreneurs benefit from the project?s capacity building and technical assistance. When identifying technical options, it will be important to understand the implications and potential benefits to women.[11] The PMU, namely the Regional Technical Coordinator and M&E Specialist as well as the National Financing Specialists/Coordinators, will be responsible for the implementation of the gender-specific actions, with support from the project partners and consultants.

[1] Earth Security Group (2019).
[2] FAO (2019). Women?s access to rural finance: challenges and opportunities.
[3] https://www.ifpri.org/blog/project-will-explore-ways-boost-southeast-asia-smallholders%E2%80%99-access-finance
https://www.raflearning.org/post/inflection-point-unlocking-growth-era-farmer-finance
[4] Islamic Development Bank (2019). Country Gender Profile. Bangladesh.
[5] Asian Development Bank (2010). Country Gender Assessment Bangladesh.
[6] Bangladesh GEF-7 LDCF Project Document, ?Building Climate Resilient Livelihoods in Vulnerable Landscapes in Bangladesh (BCRL)? (GEF ID 10207).
[7] FAO (2010). Cambodia National Gender Profile of Agricultural Households.
[8] Cambodia GEF-7 LDCF Project Document ?Promoting Climate-Resilient Livelihoods in Rice-Based Communities in the Tonle Sap Region? (GEF ID 10177).
[9] FAO (2019). Country Gender Assessment of Agriculture and the Rural Sector in Vietnam.
[10] Viet Nam GEF-7 Project Document, ?Integrated Sustainable Landscape Management in the Mekong Delta of Vietnam? (GEF ID 10245).
[11] Viet Nam GEF-7 Project Document, ?Integrated Sustainable Landscape Management in the Mekong Delta of Vietnam? (GEF ID 10245).

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

1. Private sector engagement is at the core of the model, through:
? **Commercial investment in the RRL Facility including from international investors**;
? Mobilization of local private sector **financial institution**s;
? Mobilization of resources from private sector value chain stakeholders (e.g., traders, input providers, processors, exporters, brands, technology providers) and subsequent investment in resilient rice production and value chains (by **private sector input and TA suppliers** etc.) leveraged by the finance available through the Facility. This could also involve off-take agreements through vertically integrated value chains.
? **Agricultural cooperatives and farmers groups** which play an important role in the integration of smallholder farmers in the value chain.

2. Additionally, the amount of private sector finance mobilized will be one of the indicators of success of the Facility.

3. Private sector representatives have been involved in shaping the concept of the proposed project through their participation in the roundtables and the rice finance report mentioned in the baseline section, which were held in 2021 and during which the establishment of a Finance Facility was discussed. The Roundtable discussions included value chain actors and financial institutions such as Olam, SunRice, the UBS Optimus Foundation, IFC, and Rabobank. Additionally, private companies and financial institutions were consulted during the development of the GEF-7 projects in Bangladesh, Cambodia, and Viet Nam, to which this project links closely (see *Section 6. Coordination*), and again during the Finance Facility PPG. These included, among others, processors including Amru Rice and BRICo in Cambodia, Mars Food Group, Olam, and Bangladesh Bank. A dedicated regional private sector consultation was organized in October 2022; and private sector representatives participated in the validation workshops in each country. Finally, consultations with local banks and other private sector stakeholders were undertaken during the development of the Sustainable Rice Finance paper, which has also informed this project (see Box 8). To understand needs and opportunities for sustainable rice finance, several dozen experts with value chain experience in major rice-producing regions were interviewed.

4. The ongoing and active participation of SRLI partners in the project will be crucial in realizing this private sector engagement. SRLI partners will be involved in various technical aspects of the project. Linkages with downstream market actors will be established through the networks of SRP and WBCSD, including identification of off-takers for traceability and Chain of Custody.[1]

5. In 2022, WBCSD held several workshops with companies along the agriculture value chains to discuss voluntary carbon markets in Asia. Companies have expressed strong interest in the development of a rice carbon market roadmap and in NbS financing. WBCSD?s members will be involved in the planning of the financial mechanism and in identifying projects, including with companies serving as aggregators to reach farmers, and in promoting sustainable, climate-resilient rice practices in their supply chains. National Business Councils will also be engaged where relevant, including the Vietnam Business Council for Sustainable Development (VBCSD).[2] The private sector can also play a role in sharing learning, e.g., through their participation in high-visibility events or sharing case studies.

6. The following private sector stakeholders have been engaged during project preparation and/or will be engaged during implementation. Please refer to Annex I2 for details. Additionally, a demand assessment study will be conducted by IFC (with global FOLUR funding) to better understand the financing needs related to sustainable rice landscapes in the region.

Table 3: Types of private sector that will be engaged and anticipated commitments

Type of private sector actor	Examples	Anticipated types of commitments during the project?s implementation

Financial institutions	National and international financial institutions, banks, and micro-finance institutions that provide finance at different levels of the value chain, e.g., Cambodia?s Agricultural and Rural Development Bank (ARDB), Bangladesh Bank, Vietnam Development Bank (VDB, a GCF accredited entity), Vietnam Bank for Agriculture and Rural Development (Agribank), etc.	Memoranda of Understanding (MoUs) or Letters of Intent to (1) serve as a financial institution partner to the Facility ? including both national and international, (2) provide financing to the Facility, and/or (3) support capacity development.
Private investors	Private investors (individuals or funds)	Initial commitments to invest in the Facility
Suppliers	Input and service providers	Memoranda of Understanding (MOUs) or Letters of Intent to provide capacity building, provide affordable, high-quality inputs such as seeds and services, mechanised harvesting and post-harvesting processes, etc.
Producers	Cooperatives and farmer groups, micro, small and medium enterprises (MSMEs), smallholder farmers, agricultural cooperatives	Participation in training, expression of interest to participate in the project and/or in SRP certification
Processors	Collectors, aggregators, brokers, millers, and processors (national and subnational companies, state-owned companies)	Off-take agreements for SRP-verified/produced rice

Buyers	Traders, exporters, wholesalers, and retailers (national or multi-nationals, national subsidiaries), e.g., Loc Troi, Amru Rice, Mars Food, Olam, etc. (including WBCSD members)	Off-take agreements for SRP-verified/produced rice, potential Letters of Intent for investments in climate-resilient value chains (pipeline development), provision of technical assistance/ training.

7. SRP has been identified as a good mechanism to leverage private sector interest due to its (1) Scalability: SRP requires less upfront cost for conversion and certification than organic, (2) Market acceptance and global recognition, and (3) Future outlook: the SRP standard includes different grades, enabling farmers to continuously progress in resource efficiency, biodiversity and GHG emissions.[3] While both Cambodia and Viet Nam are exporters of rice and benefit from the international demand for SRP-verified rice, the situation in Bangladesh as a net importer needs to be given due consideration when developing the criteria for the Finance Facility (although benefits from the application of the SRP Standard go beyond export market access, such as the reduction of input costs and increase in incomes).

8. The proposed project is expected to foster multi-national private sector engagement through the SRP members and network. Consultations with various processors in Cambodia during the GEF-7 LDCF project development, including Amru Rice and BRICo, have reconfirmed broad support from domestic processors for such standards, technical assistance, policy adjustments, and local investments that help to improve the reliability, quality, consistency, and marketability of crops, especially rice. Similar growing support has been expressed by international buyers and wholesalers.

9. In Bangladesh, extensive consultations were held with private sector during project development of the GEF-7 LDCF project. The LDCF project will support local entrepreneurs to deliver services to farmers related to crop production and post-harvest transport or storage, and MSMEs who will engage in aggregation, agro-processing, or specialized input provision. It will also link with large agri-business firms for a range of services along the value chain. It will promote private sector investment (i.e., in finance, technology, services) in innovations to enable climate-resilient livelihoods and landscapes.[4] The Finance Facility could benefit from the networks developed by this project.

10. Finally, the project will leverage ongoing public-private partnership mechanisms, such as the Partnership for Sustainable Agriculture in Vietnam (PSAV). PSAV was established in 2010 under the ?New Vision for Agriculture 2020?. It focuses on linking actors in the agricultural sector to share experiences and collaborate on the value chain development of key agricultural commodities in Viet Nam. The PSAV Public Private Partnership (PPP) Task Force on Rice was launched by MARD and Bayer Vietnam in November 2017.[5] It aims to promote the sustainable development of the rice sector, improve Vietnamese rice quality, and improve farmers? livelihood.

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[1] The SRP Chain of Custody model ensures that verified product is kept separate from non-verified sources through each stage of the supply chain, enabling retailers to ensure that the ingredients contained in any product originate from verified sources.

[2] https://www.wbcsd.org/Overview/Global-Network/Regions/Asia/Vietnam/Vietnam-BCSD-VBCSD

[3] Mana Impact (2022) (*unpublished report*). Identifying New Innovative Financing Mechanisms to Support Sustainable Food System Transformation in Cambodia.

[4] Bangladesh GEF-7 LDCF Project Document, ?Building Climate Resilient Livelihoods in Vulnerable Landscapes in Bangladesh (BCRL)? (GEF ID 10207).

[5] http://psav-mard.org.vn/public-private-partnership-in-rice-sector-%EF%BF%BDpromitng-sustainable-value-chain.html

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

1. The following risks to the project have been identified during project identification and further elaborated during project preparation. The mitigation measures are outlined below. The PMU will be responsible for the implementation and regular monitoring of the risk management plan. COVID-19 related risks as well as environmental and social risks are addressed in the following sections.

Description of risk	Impact	Probability of occurrence	Proposed mitigation actions
1) The project is unable to make the necessary deals to secure financing and engage intermediaries	High	Low	? Initial discussions with potential partners and financiers during project identification and preparation have been very positive. The project will continue to tap into the SRLI partners? networks to mobilize potential financiers and intermediaries. Lessons learned from other similar funds including the AGRI3 fund and the Food Securities Fund will be taken into account.
2) Unable to identify eligible counterparts and pipeline of viable projects. E.g., the potential counterparts are not sizable enough, they do not have the necessary governance structure to absorb financing, and/or they do not have the necessary credit history.	High	Moderate	? The initial scoping and discussions held with SRLI partners and other value chain actors have already identified several potential counterparts and potential projects to be financed. More detailed analysis will be conducted during project implementation, accompanied with technical assistance to ensure that the necessary capacity is built among potential counterparts and intermediaries. Assistance could be provided to develop business plans, for example.
3) Political risks, changes in trade policy and regulatory environment	Moderate	Moderate	? The project will continue to carefully observe the political, policy and regulatory environment during project implementation, and political risks will be considered in the design of the financial mechanism. Currently, there are strong policies in place in all three target countries encouraging increased financing for adaptation (including private sector financing), and it is considered unlikely that this would change in the near future.

4) Market risks, price fluctuations. High input costs due to the Ukraine crisis and global inflationary pressures.	Moderate	Moderate	? Market risks and price fluctuations will be considered in the design of the financial mechanism. Lessons learned from value chain partners will also be taken into account. Global inflationary pressures will limit Governments? ability for finance. This further emphasizes the need for engaging commercial financing.
5) Financial risks (interest rate risks, currency risks, credit/default risk)	Moderate	Moderate	? Consideration of financial risks is an integral part of the design of the financial mechanism and will be analysed in detail during project implementation. Risks related to rising private debt in Cambodia will also need to be considered. With regard to currency risks, the transactions of the financial mechanism are expected to be predominantly in USD.
6) Weather events such as droughts, floods, cyclones	High	High	? Crop losses and other impacts due to weather events are likely and may significantly impact the durability and profitability of the project?s investments. The project will put in place measures to mitigate such risks, such as through crop insurance or by making sure that investments are climate-proof. These measures will be further elaborated during project implementation.
7) Climate change	High	High	? Climate change is expected increase the likelihood, frequency and intensity of extreme weather events and will lead to reduced crop yields in some areas. The project?s activities are designed to address these climate risks. A more detailed climate risk analysis is provided in the section below.
8) Legal and compliance	Moderate	Moderate	? Necessary legal and compliance analysis will be conducted as part of project implementation and establishment of the financial mechanism (Output 1.2).
9) Structural, regulatory or policy risks	Moderate	Moderate	? There is a risk that regulatory restrictions may limit investments in the rice sector, in particular related to rice exports. A detailed analysis of the legal and regulatory environment will be conducted as part of the project implementation (Output 1.2). Also, the project will work with local financial institutions already established and who have expertise in the country. The Ministries of Finance and central banks will be engaged to obtain the necessary approvals.

COVID-19 related risks

2. As noted above, the impact of the COVID-19 pandemic on food systems has exposed the vulnerabilities of supply chains throughout the world. In the Asia region, the slowing global economy has caused widespread job losses, falling incomes, and reduced remittances. The ongoing impacts of the COVID-19 pandemic and related restrictions are worsening the vulnerability of poor communities and has pushed more people into poverty. Furthermore, the COVID-19 pandemic related impacts have exacerbated

the population?s vulnerabilities, and this will stress household resilience as poverty is projected to increase. Despite the global economic downturn, agricultural production (including rice) has been relatively resilient. However, supply chains that ensure the flow from producers to consumers have been disrupted by movement restrictions.[1] Also, as noted above, the supply chain disruptions caused by the COVID-19 pandemic have been further exacerbated by the Russia-Ukraine crisis.

3. In Bangladesh, the COVID-19 pandemic led to difficulties for farmers in obtaining agricultural inputs, new varieties of rice and extension services. There was a scarcity of labour and machinery for harvesting and threshing of *boro* (winter) rice and planting of *aus* (summer) rice.[2] Levels of food insecurity increased among the poor during the lockdown period. The pandemic also led to reduced household income and increased unemployment. In Cambodia, COVID-19 exacerbated many of the existing risks and vulnerabilities, including poverty, high household debt, and inefficiencies in agricultural value chains.[3] The project?s interventions are aimed at addressing these vulnerabilities through increased sustainable production of rice, improved access to diversified financial resources, ensured continuity and function in rice value chains, and efforts to broaden access of Cambodian farmers to international markets. In Viet Nam, COVID-19 led to disruptions in the agricultural supply chains, in particular those relying on imports of inputs or exports of agricultural products. There was also a lack of working capital to pay salaries, loan interests, and rental fees, etc. Restrictions on rice exports were in place during the initial phase of the pandemic.[4] Traditional commercial activities were greatly affected by the COVID-19 restrictions, which led to an increase in e-commerce and innovative agri-product exchange platforms.[5]

4. Most governments in the region responded with a range of social protection measures. These include cash transfers and unemployment benefits, provision of food in kind or through vouchers, wage subsidies, and waiver or postponement of utility bills. The Government of Bangladesh provided stimulus packages in the form of wage support, working capital loans, and cash transfers. Financial assistance was provided to small and medium farmers in rural areas to boost agricultural production. This was also supported by the United Nations Immediate Socio-economic Response Plan (ISERP). Bangladesh Bank put in place a wide range of supportive financial sector policies to counter the impacts of COVID-19 on the economy.[6] Under the Eighth Five Year Plan (2021-2026), agricultural value chains will be strengthened to ensure food security post COVID-19.

5. In Cambodia, the United Nations supported the Government?s rapid roll out of social protection cash transfers to all poor and vulnerable Cambodian citizens via the IDPoor system.[7] In December 2021, Cambodia adopted the ?Strategic Framework and Programmes for Economic Recovery in the Context of Living with COVID-19 in a New Normal 2021-2023?. Among others, the Government plans to implement measures to improve the agriculture sector through more affordable loans, tax incentives, and post-harvest infrastructure investment. It also aims to support agriculture value chain development and upgrading. The agriculture sector has strong potential for growth in exports and new investments to leverage increasing market access.[8]

6. Viet Nam?s National COVID-19 Response Plan was first issued in January 2021, providing for a social protection package with cash support for those most vulnerable and workers who lost jobs, and impacted enterprises with low interest credit to pay workers? salaries. This was complemented by the United Nations COVID-19 Strategic Preparedness and Response Plan for Viet Nam, focused, among others, on ensuring essential health services, protecting jobs, and supporting small and medium-sized enterprises and informal sector workers through economic response and recovery programmes.[9]

7. The proposed project will help to support the Governments? response to COVID-19 in the three countries through its focus on resilient rice-based livelihoods and value chains. The models for sustainable production and value chains proposed by the project will contribute to ?building back better? by supporting resilient rice landscapes, value chains and livelihoods, based on reliable and adaptive relations between producers and retailers/consumers, that will be better able to cope with external ?shocks? such as those presented by COVID-19 and climate change.

8. COVID-19 related risks and corresponding mitigation measures are summarized below.

Description of risk	Proposed mitigation measures
1) *COVID-19 continues to affect farmers and market actors? ability to implement effective agricultural value chains.* COVID-19 related restrictions have significantly affected all aspects of food production, including agricultural trade and market systems, produce prices, and the quality and price of agricultural inputs. *Impact:* High *Probability of Occurrence:* Moderate	The project builds on ongoing efforts by governments and development partners to support farmers and communities to address COVID-19 related issues in the short term, and to build resilience into rice-farming systems and value chains for the long term. The project will ensure close collaboration with private sector entities to understand ongoing constraints related to the pandemic and identify feasible options.
2) *COVID-19 restrictions lead to delays in project start-up and implementation, and reduced capability of the project to engage with local stakeholders*. *Impact:* Moderate *Probability of Occurrence:* Moderate	Where feasible, meetings with national and local stakeholders will be organized online (as was done during PIF and CEO endorsement request development). If movement restrictions continue, the project will use alternative methods of engagement such as through local partners and offices. The project will continue to monitor the situation and implement adequate mitigation measures as required.
3) *COVID-19 or similar future crises may lead to changing policy environment and may affect the availability of co-financing.* *Impact:* Moderate *Probability of Occurrence:* Moderate	Rice and agriculture more generally are highlighted as key areas for strengthening resilience in various national plans and policies, including in the COVID-19 recovery plans, and it is not anticipated that this would change significantly in case of continued or similar future crises. Investments in rice value chains are not anticipated to be significantly reduced due to the pandemic. In turn, there is an opportunity for the project to directly contribute to a climate-resilient recovery to the COVID-19 pandemic through its investments in capacity and resilience building. By supporting access to financing for sustainable, climate-resilient investments and livelihoods and by strengthening farmer organizations and small and medium enterprises (SMEs), the project is aligned with governments? efforts to invest in COVID-19 recovery. The project will attract investments in a vital food crop focused on making agri-food systems more efficient, resilient, and sustainable. This will be done within a context of integrated landscape planning and management and diversified farming and livelihood systems, that promote resilience to climatic and other shocks and reduce the risks of further zoonotic spillovers. Moreover, given the current inflationary pressures on food crops, the project will help to address working capital needs in the rice sector that have been exacerbated by the COVID-19 pandemic and current inflationary concerns, which make it more difficult for banks to lend. All co-financing commitments identified during PIF development were confirmed during PPG.

Climate Risk Analysis

9. A climate risk analysis was conducted during PIF development and is uploaded in the GEF Portal. The project is designed to build resilience to climate change in rice-dominated landscapes and, thus, address some of the identified climate risks. Safeguards and indicators will be put in place to ensure that all of the Fund?s investments are climate-proofed and contribute to wider national and landscape level adaptation goals. A summary of the findings and recommendations of the climate risk analysis is provided below. Additional analysis of climate change impacts in the three countries, in particular related to rice production, is provided in Section *1.a Project Description* of the CEO endorsement request (sub-section B. Climate change impacts).

Summary of climate risk analysis and recommendations

On a scale of low, moderate, high, and very high, the climate risk within the project areas is high (Bangladesh and Viet Nam) to very high (Cambodia) without project modulation, and moderate (Bangladesh and Viet Nam) to high (Cambodia) with project modulation. Many of the hazards observed in the present are likely to intensify and gain in frequency into the future. As a result, the project areas and vulnerable socioeconomic groups are expected to be adversely affected by increasing extreme weather and climate events. Nevertheless, the proposed project activities are appropriate in terms of adaptation, and will certainly diminish the elevated risk, but are not sufficient to entirely mitigate the future risks along project areas.

Due to the projected changes in climatological trends in the mid to long term future within the Mekong Ganges, and Brahmaputra Delta, it is highly recommended that the historical changes and future projected climate data is incorporated as an integral part of the planned assessments and management plans in the project. It is recommended that climate change is fully integrated into all aspects of this project. In particular, the recommendations include:

Recommendation	How it was addressed in the project design
1. It is fundamental that rural areas are properly linked to urban center and market areas through provincial and national roads. Hence, food value chains that are competitive require sustainable and efficient transportation and infrastructure systems.	Large infrastructure development such as roads and large-scale irrigation goes beyond the scope of the current project and of the Finance Facility. These should be financed from other sources of financing. However, the needs can still be assessed during the assessment of financing needs under Component 1, and other financing sources may be identified.
2. Disseminate best storage practices across value chains.	Climate-resilient storage is part of the technical options that may be supported by the Finance Facility, as described in the CEO endorsement request.
3. There are numerous barriers to the development of climate services along the food value chain including (i) the need for reliable data, (ii) limited technology and innovation, (iii) heterogeneity of agri-food value chains, (iv) lack of communication and capacity building, (v) lack of investment in climate adaptation, (vi) limited policy support.	Climate services (including the improvement thereof) are part of the technical options that may be supported by the Finance Facility and/or associated technical assistance. This will also take into account recent FAO guidance on climate services for climate-smart and resilient agri-food value chains.[10] Climate advisories could include, among others, optimal planting date, onset/offset of rainy season, dry spells, false start of the rainy season, dry spells, cumulative rainfall, evapotranspiration rates, cumulative growing degree days, soil moisture information, precipitation forecast, seasonal forecast, pest & disease forecast, wind forecast, hail forecasts etc.
4. Strengthen social protection systems and foster climate resilient certification schemes to underscore the return on investment.	This is addressed mainly through the incorporation of SRP into the project design.
5. Integrate climate risk assessments into project design and business plans for agri-food value chains.	Additional climate risk assessments could be conducted as part of the envisioned GCF technical assistance project. This is yet to be defined in more detail during the GEF project implementation. Business plans that incorporate climate risks could also be developed with support of the technical assistance project.
6. Improving access and use of weather-informed agricultural advisories will invariably support women and youth in exploring entrepreneurial and economic opportunities in climate smart agriculture.	Climate services and other advisory services, in particular benefiting women, youth and vulnerable groups, are part of the technical options that may be supported by the Finance Facility and/or associated technical assistance.
7. Build the capacity of value chain actors to use climate services and communication tools.	This is part of the project?s capacity building (Component 2).

[1] FAO (2020). ?Impacts of coronavirus on food security and nutrition in Asia and the Pacific: building more resilient food systems.

[2] FAO (2020). Second rapid assessment of food and nutrition security in the context of COVID-19 in Bangladesh.

[3] MAFF, CARD and FAO (2020). Rapid Assessment of COVID-19 Impact on Agriculture and Food Security in Cambodia.

[4] https://www.unicef.org/vietnam/reports/un-analysis-social-impacts-covid-19-and-strategic-policy-recommendations-viet-nam

[5] https://nardt.org/vn/tID4096_Impacts-of-Covid19-pandemic-on-smallholder-farmers-and-vulnerable-rural-people-in-Viet-Nam.html

[6] https://www.bb.org.bd/pub/special//covid19_policymeasures_2nded.pdf

[7] https://unsdg.un.org/resources/un-cambodia-framework-immediate-socio-economic-response-covid-19

[8] https://www.adb.org/sites/default/files/project-documents/54195/54195-001-dpta-en_1.pdf

[9] https://unsdg.un.org/resources/covid-19-socio-economic-response-plan-viet-nam

[10] FAO (2022). Managing risks to build climate-smart and resilient agrifood value chains: The role of climate services.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

6.a Institutional arrangements for project implementation.

1. The Food and Agriculture Organization of the United Nations (FAO) will be the GEF implementing agency of the project. The project will be executed by the Sustainable Rice Platform (SRP) in collaboration with other partners, including the World Business Council for Sustainable Development (WBCSD) and relevant Government agencies in the three target countries.[1] The executing agencies will collaborate closely on project implementation with other SRLI partners[2], taking advantage of their technical capacities and their global/regional influence among public and private sector communities. The International Finance Corporation (IFC), who has been identified as the potential Fund Manager of the future Finance Facility due to its investment and private sector capital mobilization capabilities (and GCF accreditation) and interest in the project, will also be closely involved. Other stakeholders will be involved in the project implementation as described in *Section 2. Stakeholders*.

2. The proposed project organization structure is as follows:

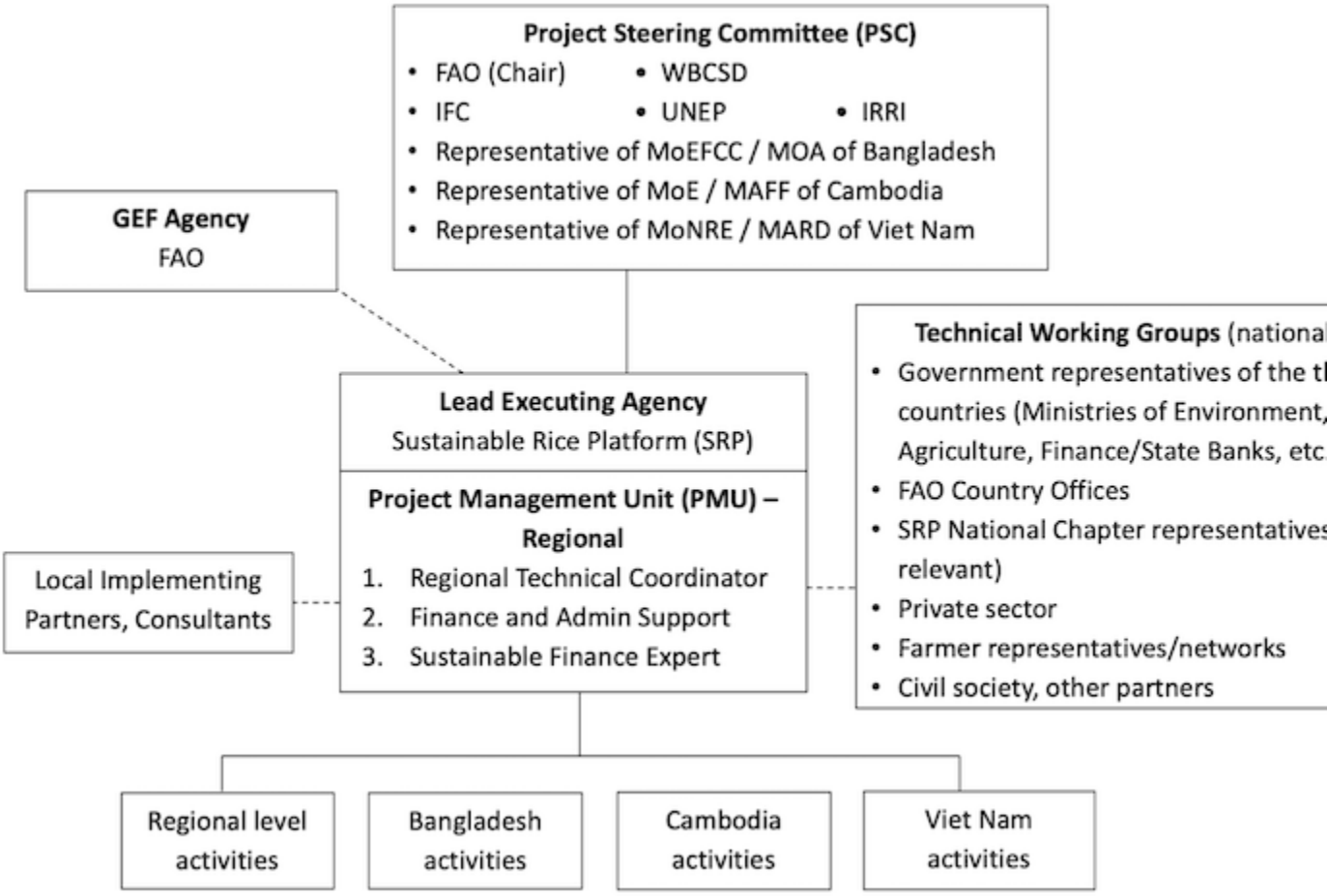

Figure 10: Project organization structure

3. A **Project Steering Committee (PSC)** will be established to provide strategic guidance to the PMU and take decisions related to the project implementation including approval of project plans, budgets, and revisions. The PSC will be comprised of representatives from FAO, WBCSD, IFC, UN Environment, IRRI, as well as the Ministries of Environment and/or Agriculture of the three countries. FAO will chair the Project Steering Committee. The PMU under SRP (see below) will act as the Secretary to the PSC. The PSC will provide strategic guidance to the Project Management Team and to all executing partners. The PSC will meet at least once a year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of governmental partners work under this project; vi) Review and approval of the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the Regional Technical Coordinator & M&E Specialist of the PMU. The members of the PSC will each assure the role of a Focal Point for the project in their respective organization. As Focal Points in their organization, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their organization and the project; (iii) facilitate coordination and links between the project activities and the work plan of their organization; and (iv) facilitate the provision of co-financing to the project. The Regional Technical Coordinator & M&E Specialist (see below) will be the Secretary to the PSC.

4. **Technical Working Groups (TWGs)** will be established at the national level (1 per country) to provide technical guidance to the project. The TWGs will be convened *ad hoc* on a needs? basis by the project implementation (at least twice a year) and will include representatives from Government, FAO country offices, SRP National Chapter representatives, the Vietnam Environment Protection Fund (VEPF), private sector, farmer representatives/networks, civil society, and other partners. The TWG may call on additional relevant experts depending on the agenda items.

5. A **Project Management Unit (PMU)** will be established within SRP. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient day-to-day management, coordination, implementation, and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs), including financial and administrative management. The PMU will also lead the organization of the PSC and TWG meetings. The PMU will be composed of a Regional Technical Coordinator & M&E Specialist who will work full-time for the project lifetime. In addition, the PMU will include Finance and Admin Support and a Sustainable Finance Expert (part-time). The PMU will coordinate closely with the FAO country offices for the activities in the three pilot countries. The National Consultants hired in each country could be hosted in the FAO country offices and/or SRP national chapter organizations to ensure coordination with ongoing initiatives in the country. The National Consultants will be hired in close consultation with Government and local partners and will work closely with the designated Government focal persons and partner organizations in each country. In Bangladesh, MoA has been designated as the main Government focal agency. In Cambodia, MAFF?s General Directorate of Agriculture has been designated as the main Government focal agency. In Viet Nam, ISPONRE has been designated as the main Government focal agency.

6. The **Regional Technical Coordinator** (who is also the project?s M&E Specialist) will lead the daily implementation, management, administration, and technical supervision of the project within the framework delineated by the PSC. S/he will be responsible, among others, for the (1) technical and operational lead and project coordination, (2) monitoring and evaluation, (3) knowledge management and communications, and (4) compliance with the Operational Partners Agreement (OPA) and reporting. Please refer to Annex M for the detailed Terms of Reference.

7. The **Food and Agriculture Organization (FAO)** will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. In the IA role, FAO will utilize the GEF fees to deploy three different actors within the organization to support the project (see Annex K for details):

- ? The *Budget Holder*, the FAO Regional Representative for Asia and the Pacific will provide oversight of project execution in close coordination with the FAO Representations in Bangladesh, Cambodia, and Viet Nam;
- ? The *Lead Technical Officer(s)*, drawn from across FAO will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee;
- ? The *Funding Liaison Officer(s)* within FAO will support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements;
- ? The *HQ Technical Officer* is accountable for advising and supporting the LTO in ensuring project formulation, appraisal and implementation adhere to FAO corporate technical standards and policies.

8. FAO responsibilities, as GEF agency, will include:

- ? Administrate funds from GEF in accordance with the rules and procedures of FAO;
- ? Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s)and other rules and procedures of FAO;
- ? Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;

? Conduct at least one supervision mission per year; and

? Reporting to the GEF Secretariat and Independent Evaluation Office, through the annual Project Implementation Review, the Mid Term Review (where applicable), the Terminal Evaluation, and the Project Closure Report on project progress;

? Financial reporting to the GEF Trustee.

6.b Coordination with other relevant GEF-financed projects and other initiatives.

a. Linkages with GEF-7 projects (FOLUR and LDCF)

9. The proposed project links closely with the following GEF-7 projects developed under the Least Developed Countries Fund (LDCF) and the GEF-7 Food Systems, Land Use and Restoration (FOLUR) Impact Program. The project will collaborate closely with these initiatives to achieve mutually reinforcing outcomes and avoid duplication.

10. In particular, the **GEF-7 FOLUR Global Knowledge to Action (K2A) Platform** project aims to mobilize additional finance for sustainable production approaches. In close coordination with the FOLUR country projects, this project will engage public and private sector actors on policies, practices, analyses, and financing toward sustainability outcomes. Activities include organizing and delivering investor finance forums at region and commodity level, including challenge dialogues, adoption of standards, principles for sustainable investment, etc.; providing matchmaking/brokering for a few key opportunities; developing and promoting financial innovations, e.g., outreach to banks, impact investors and commodity-based funds.

11. A summary of the three GEF-7 country projects to which the proposed project links most closely is provided in Appendix 3 of the Project Document.

b. Linkages with other GEF and non-GEF initiatives

12. Linkages and coordination with other relevant GEF and GCF projects and other initiatives are summarized in the table below. Coordination will be ensured through FAO, relevant SRLI partners, and Government ministries.

Programme	Linkages with the project
Global / regional	

1) The Food Securities Fund: the GEF provided USD 15m as a Non-Grant Instrument (NGI) to this investment fund created by Clarmondial (GEF ID 10322) with Conservation International as the GEF agency. This Fund started to provide loans in March 2021 and has disbursed several loans already and is already attracting additional private capital including from European institutional investors. It is an evergreen fund so the opportunities for scale are significant. The Fund can consider transactions across global developing and emerging markets. The Fund can provide an additional source of working capital finance, including unsecured finance, to aggregators including traders, exporters, processors, and other companies that link smallholder farmers and farmers groups to markets.	The proposed RRL project will build on the experiences of this project, including input from Clarmondial ? who developed and is implementing the Food Securities Fund. The RRL may collaborate with the Food Securities Fund, for example by providing additional guarantees and Technical Assistance to the Fund?s borrowers.
2) In 2017, UN Environment Programme and Rabobank announced a global **Forest Protection and Sustainable Agriculture partnership**, with the aim to unlock at least USD 1 billion in finance towards deforestation-free, sustainable agriculture and land use. A fund was created to catalyse private financial resources for this initiative: the **AGRI3 Fund**.[3] A GEF Non-Grant Instrument (NGI) project by Conservation International is currently under development to support the AGRI3 fund (?A Forest Conservation and Sustainable Agriculture Fund for Developing Countries?, GEF project ID 10497). The AGRI3 Fund has a global scope and ambition, but with a focus on middle income (MICs) and lower income countries (LICs). In line with the strategy to create impact efficiently, the Fund will initially focus on **Brazil, Indonesia, and India**; other jurisdictions will be considered contingent on the availability of eligible transactions. In the lead-up to the operationalization of the AGRI3 Fund, an Environmental and Social (E&S) impact framework including Key Performance Indicators (KPIs), and a pipeline of projects were developed.[4]	The proposed project will build on the experiences of this project and will exchange to create synergies and avoid potential duplication with the investments of this fund. This will be done, in particular, through UN Environment Programme who is an SRLI partner.

3) LDCF/SCCF Challenge Program projects (in development): ? **Net-Zero Adaptation Finance**, FAO with Winrock International (GEF ID 10933): This project proposes the creation of the Net-Zero Adaptation Finance (NZAF) program to ensure that climate finance flowing to agriculture and land use sectors is meeting both adaptation and mitigation objectives. The NZAF program has two innovative components: 1) A resilience screening tool called WinRes to be used in partnership with private sector actors procuring emissions reductions from the agriculture and land use sectors; and 2) A Bridge Finance Facility to mobilize concessional financing from financial institutions to project developers who deliver adaptation-oriented GHG reduction and removal projects. ? **Scaling Financial and Information Services for Smallholder Adaptation**, FAO with CIAT (GEF ID 10954): The project will gamify incentives to rapidly increase climate change awareness and familiarize 50,000 Ugandan and Zambian farmers with climate information services driving increased demand for risk management strategies. At the same time, the project will extend smallholder-friendly insurance and credit products such as index insurance, normal credits, and risk-contingent credit to 5,000 farmers in these two countries. ? **Certification of NbS Portfolios of Inclusive Financial Service Providers for Scaling CCA and Biodiversity Finance for small-holder farmers**, by IFAD and BNP Paribas (GEF ID 11002): This project aims to mainstream adaptation finance towards Inclusive Financial Service Providers (IFSPs) thanks to a robust portfolio certification scheme enabling them to transparently support their rural clients? Nature-based Solution (NbS) and climate change adaptation practices.	Exchange of lessons learned will be sought during implementation of these projects.
4) **ADB GCF FP156: ASEAN Catalytic Green Finance Facility (ACGF): Green Recovery Program** (mitigation).[5] The ACGF GRP will help targeted ASEAN developing member countries (including Cambodia, Indonesia, Lao PDR, Malaysia, and Philippines) to prioritize post-COVID infrastructure investments that have high climate-positive / green impacts, are bankable and that mobilize private capital. In addition to the energy, transport, and urban sectors, the facility will fund projects in the Sustainable agriculture and natural resources sector, such as reforestation, agroforestry projects, and soil carbon sequestration.	The proposed project will exchange and coordinate with this program to enhance synergies, exchange knowledge and lessons learned, and avoid duplication.
5) **FP151-152: Global Subnational Climate Fund (SnCF Global) and Technical Assistance (TA)** (IUCN and Pegasus Capital Advisors) (mitigation). The SnCF is a multi-country Fund that is set to invest in up to 20 countries (including for Asia-Pacific: Cambodia, Fiji, Indonesia, and Myanmar) through a blended public-private finance facility. The aim is to catalyse climate resilient, low carbon infrastructure as a new asset class in mid-size, infrastructure for private capital.[6]	The proposed project will aim to build on lessons learned of this project in terms of establishment of a multi-country fund involving GCF investment.

6) Oxfam?s **Gender Transformative and Responsible Agribusiness Investments in South-East Asia** (GRAISEA) programme is a three-year programme that aims to improve the livelihoods of women and men small-scale producers in Asia through more responsible and inclusive value chains and private sector investments. The rice value chain programme under GRAISEA has shown a significant result to improve market linkage and thereby increase women and men farmers? income and knowledge in sustainable agriculture practices. This programme engaged the private sector partners directly to improve the market system of rice (and organic rice) in the targeted countries.[7]	The proposed project builds on the lessons learned of this project in particular related to improving market linkages.
7) FAO is leading several GEF Capacity-building Initiative for Transparency (CBIT) projects globally and in the region, assisting countries in developing their MRV systems, in particular in the agriculture sector. Notably, FAO is currently implementing two global CBIT projects, (i) Global capacity-building products towards enhanced transparency in the AFOLU sector (CBIT-AFOLU); and (ii) Building global capacity to increase transparency in the forest sector (CBIT-Forest). Additionally, FAO is implementing national CBIT projects in Afghanistan, Bangladesh, Cambodia, Mongolia, Papua New Guinea, and Sri Lanka.	The proposed project will build on the MRV systems developed under the CBIT projects for its monitoring and evaluation component.
8) FAO in collaboration with UNDP and funding from the German Ministry of Environment, Nature Conservation and Nuclear Safety (BMU) through its International Climate Initiative (IKI), is implementing the **Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs** (SCALA) programme. The programme supports 4 countries in Asia including Cambodia, Mongolia, Nepal and Thailand to translate their NDC and/or NAPs into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement. It emphasizes collaboration between the public and private sectors to drive implementation and addresses several cross-cutting issues.[8]	The proposed project will coordinate activities on private sector engagement for NDC implementation and agrifood system transformation in Cambodia and facilitate the sharing of lessons learned regionally and globally.
9) **GCF project ?Thai Rice: Strengthening climate-smart rice farming? by GIZ** (in preparation). The objective of the project is to shift smallholder rice agriculture in Thailand onto a low-emission, climate-resilient development trajectory. The project will also promote private-sector participation in extension services, for example by sustainable rice off-takers such as Olam, Herba Bangkok/Ebro Foods and Mars Foods.[9]	The proposed project will seek to exchange with this project in order to identify synergies and build on lessons learned.
10) The **Good Food Finance Network (GFFN)**[10] is a multi-stakeholder collaborative innovation platform, working to develop the critical innovations that will allow sustainable food system finance to become the mainstream standard. The Network is convened by EAT, FAIRR, Food Systems for the Future, UNEP, and WBCSD, in close collaboration with the World Bank, S2G Ventures, the UNEP-FI, the GEF, PRI, Just Rural Transition, and other supporting partners. GEF and GCF are part of the High Ambition Group of the GFFN.	The proposed project will exchange with the GFFN and aims to directly contribute to the objectives of the Network.

11) **Remote Sensing-based Information and Insurance for Crops in Emerging Economies (RIICE)** is a Public-Private Partnership funded by the Swiss Development Cooperation, with Allianz, Sarmap company, GIZ, IRRI, with two objectives: 1. Increase the information on rice growth areas through remote sensing technology; 2. Provide access to insurance solutions for governments, agricultural intermediaries (cooperatives or rural banks) and individual farmers. The project is starting its second phase and will look at developing its insurance chapter in target countries including Cambodia.[11]	The project will explore synergies with this project in particular related to its insurance component and geospatial system.
12) In 2022, Grow Asia launched four multi-donor impact funds totalling USD 20.2 million to promote sustainable and inclusive practices in the food, agriculture, and forestry sector in Southeast Asia. The four funds will invest in programs that drive agri-food innovation, women?s economic empowerment, responsible investment, and climate change adaptation and resilience. The funds serve as a co-matching mechanism between public sector funding and private sector investments.[12]	The proposed project will exchange with Grow Asia?s funds and explore synergies, in particular for investments in Cambodia and Viet Nam.
13) The United Nations Capital Development Fund (UNCDF) supports countries across the region to unlock private and public finance for SDG achievement. UNCDF uses digital solutions and partners with private sector partners including Financial Institutions, Fintechs, and digital marketplaces etc., to accelerate the pace at which finance is mobilized for smallholder farmers. The agency deploys loans and guarantees to private sector entities or local government on its balance sheet through UNCDF?s Bridge Facility, or through its blended finance funds BUILD (operated by Bamboo Capital) and the International Municipal Investment Fund (operated by Meridiam).	The project will explore linkages with UNCDF investments in the target countries.
Bangladesh	
1) FAO GEF-7 LDCF **Building Climate Resilient Livelihoods in Vulnerable Landscapes in Bangladesh (BCRL)** project (GEF ID 10207)	See Appendix 3 of the ProDoc ? the proposed project links closely to this GEF-7 project.
2) UNDP GEF-6 LDCF **Integrating Climate Change Adaptation into Sustainable Development Pathways of Bangladesh**.[13] This project will have the following outcomes: (1) Enhanced capacity with improved coordination mechanisms, databases and knowledge management systems at relevant ministries and line agencies to integrate climate change adaptation into national & sub-national/local levels; (2) Adaptation options assessed and prioritized for all selected Agro-Ecological Zones (AEZs); (3) Adaptation options implemented in selected AEZs.	The proposed Project will exchange with this LDCF project and will aim to build on its outcomes by providing financing for identified adaptation options.

3) A **Bangladesh GCF Country Programme** (2018) has been developed.[14] The proposed pipeline includes a project on ?Climate Resilient Agriculture for the Climate-Vulnerable Regions of Bangladesh? and one on ?Community Based Bio-organic Fertilizer Production for Improvement of Soil health and Reduction of GHG Emission due to Use of Chemical Fertilizer in Rice Cultivation?, among others. Bangladesh has two Direct Access Accredited Entities, the Infrastructure Development Company Limited (Bangladesh) (IDCOL) and the Palli Karma-Sahayak Foundation (Bangladesh) (PKSF).[15] GCF adaptation projects under implementation in Bangladesh include (selection): ? FP004: Climate-Resilient Infrastructure Mainstreaming in Bangladesh (KfW) ? SAP008: Extended Community Climate Change Project-Flood (ECCCP-Flood) (PKSF) ? FP069: Enhancing adaptive capacities of coastal communities, especially women, to cope with climate change induced salinity (UNDP) ? Readiness Proposal with Bangladesh Bank, ?**Up scaling regulatory landscape of Green Banking for Shariah Based Banks and Financial Institutions in Bangladesh**?. The project will support the development of an evidence-based policy framework or a white paper on shariah based green financing and an updated environmental and social risk management framework for the central bank, commercial banks, and financial institutions. The institutional capacity component includes capacity building of regulators, bankers, and other stakeholders by participating and arranging trainings, workshops, seminars related to international climate finance. ? FAO and the Economic Relations Division (ERD) of the Ministry of Finance of Bangladesh are implementing a GCF Readiness project to strengthen NDA Secretariat capacity, GCF pipeline implementation, and enhance private sector engagement in climate action. A key deliverable for that project is to make recommendations on financial and non-financial mechanisms to crowd-in private sector investments in climate action, by identifying barriers. The national dialogues serve as an opportunity for highlighting opportunities and priority investment in climate-smart/climate-friendly technologies in agriculture, forestry, and land-use sectors.[16]	The proposed project will exchange closely with the GCF projects under development and implementation in Bangladesh, in particular those related to climate-resilient agriculture and sustainable financing.
Cambodia	
1) FAO GEF-7 LDCF **Promoting Climate-Resilient Livelihoods in Rice-Based Communities in the Tonle Sap Region** project (GEF ID 10177)	See Appendix 3 of the ProDoc ? the proposed project links closely to this GEF-7 project.

2) **GCF Readiness Proposal with Mekong Strategic Partners, ?Design of a Cambodian Institution for Green Financing?** (adaptation and mitigation).[17] This readiness project supported the development of a catalytic vehicle structure for green financing in Cambodia. Following the Readiness Study, the ?Cambodian Climate Financing Facility (CCFF)? concept note was developed and subsequently approved by GCF. The CCFF funding proposal is now undergoing the review process with GCF. The CCFF will be a financing facility supporting the development of green businesses, as well as incentivizing the Cambodian banking sector to participate and support the development of a green economy in Cambodia. Examples of adaptation and mitigation projects that may be supported include agriculture and forestry projects, transportation systems, irrigation systems for improved water management to protect against increased flooding and droughts due to climate change, and renewable energy and energy efficiency. The CCFF will be housed within the Agricultural and Rural Development Bank of Cambodia (ARDB). It may be possible for this institution to work with the proposed facility to channel investments to beneficiary companies/ organizations in Cambodia. This potential will be explored further during the project.	The proposed project will closely exchange with this project, in order to build on lessons learned, create synergies and avoid duplication with the future investments of this financial institution, as well as explore opportunities to co-invest.
3) Cambodia has one national GCF accredited entity (direct access entity), namely the **National Committee for Sub-National Democratic Development Secretariat (NCDDS)** (Cambodia)[18]. Additionally, **ARDB** is preparing to apply to become a GCF accredited agency in the future.	The project will consult with these entities on the proposed design of the Finance Facility.
4) FAO GCF **Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood in Northern Tonle Sap Basin (PEARL)** (in preparation) (adaptation). The project will enhance the climate change resilience of smallholder farmers and local communities in the Northern Tonle Sap Basin by increasing their access to growing premium market segments while using their improved market access to incentivize their transition to climate-resilient practices, mainly through effective public-social-private partnerships. This will be done through the following three outcomes: (1) Farmers? capacities are enhanced to manage climate impacts and related risks; (2) Adaptive capacity of smallholder farmers and other local value chain actors, particularly vulnerable women farmers, is increased through market incentives that promote climate-resilient, higher-value, diversified, and sustainable production and processing, and (3) Regulatory and institutional frameworks and capacities for climate-resilient agricultural certification, cross-sectoral coordination for increased public-social-private partnerships and smallholder financing, and climate-informed investment support are strengthened. Under Component 2, the PEARL project will establish a climate adaptation asset acquisition mechanism, the Farmer-led Agricultural Resilience Mechanism (FARM), to assist farmer associations (registered businesses) and other small-scale local value chain actors who would otherwise not have access to the necessary finance to adopt climate-resilient and market competitive practices and technologies, as they lack the collateral required. The PEARL project will also work with the National Agricultural Insurance Program, led by MAFF in partnership with the country?s leading insurance providers (e.g., Forte Insurance), to explore additional risk insurance options.	The proposed project will seek linkages and synergies with this project, in particular to identify potential value chain partners and beneficiaries.

5) Under its **Rice Sector Support Project**, IFC is working with and through local millers to help farmers access higher-value seed varieties and increase the efficiency and yield of their farms. IFC is also working with rice exporters to boost Cambodian rice competitiveness on the international market. It also supports the adoption of the SRP standard (see baseline section).[19]	The proposed project directly builds on the experiences and capacity developed by this project.
6) The World Bank-funded **Cambodia Sustainable Landscape and Ecotourism Project** (2019-2025, USD 55.6 million) is implemented by the Ministry of Environment and Ministry of Rural Development and aims to improve protected areas (PAs) management and to promote ecotourism opportunities and non-timber forest product value chains in the Cardamom Mountains-Tonle Sap landscape· The project comprises the following five components: (1) Strengthen Capacity for PAs Landscape Planning and Management; (2) Strengthen Opportunities for Ecotourism and NTFP Value Chains; (3) Improve Access and Connectivity; (4) Project Management, Coordination, and Monitoring and Evaluation; and (5) Contingent Emergency Response.[20]	The proposed project will build on the investments and experiences of this project, in particular related to improved access and connectivity and value chains.
7) The World Bank-funded **Cambodia Agricultural Sector Diversification Project** (2019-2025, USD 101 million) aims to facilitate the development of diversified agriculture value chains in selected geographical areas in Cambodia, and to provide immediate and effective response in case of an eligible crisis or emergency. The project will operate in 12 provinces, plus in Phnom Penh. The provinces have been chosen for their suitable agroecological conditions for high?value products, with Phnom Penh as the location of many potentially participating Small and Medium Agribusinesses (SMAs). Six of the target provinces have high rates of stunting and are expected to simultaneously benefit from interventions under the planned Cambodian Nutrition Project.[21]	The proposed project will build on the investments and experiences of this project.
8) IFAD Agriculture Services Programme for an Inclusive Rural Economy and Agricultural Trade (ASPIRE AT) (in preparation, USD 194 million)[22]	The proposed project will exchange with this project
9) USAID Feed the Future Cambodia HARVEST III project (2022-2027, USD 153 million for private sector investment, agricultural-related financing, and the sale of agricultural products). The project aims to increase private sector investment to strengthen climate-smart, resilient, and competitive agriculture market systems, and strengthen technical and business capacity of farms and firms, including women and youth farmers and entrepreneurs.	The proposed project will exchange with this project and seek linkages
10) DFAT Cambodia-Australia Partnership for Resilient Economic Development (CAP-RED) (USD 58 million, 2022-2027). The program will work in three areas to drive growth: infrastructure services; agriculture and agro-processing; and trade, investment and enterprise development.	The proposed project will exchange with this project and seek linkages

11) **ADB GCF FP076: Climate-Friendly Agribusiness Value Chains Sector Project** (under implementation) (mitigation and adaptation).[23] Aims at reducing greenhouse gas emissions and the climate vulnerability of Cambodia?s agricultural value chains.[24] The project will support the deployment of a farmer-oriented training program on CSA[25], reaching at least 40,000 farmers (of which at least 40% will be women), focusing on the rice, cassava, maize, and mango value chains. The project will prepare training manuals and materials for SRP standards for sustainable rice cultivation, for CSA, and for CAMGAP for tropical fruit. Finally, the project will also promote green finance and risk sharing mechanisms. Under this Activity, the project will support dialog between public and private sector stakeholders at the national level by *convening an inter-ministerial committee and promoting the establishment of crop-centric PPP forums for each value chain*. To further encourage climate-friendly private sector engagement and to orient the market towards ?greening? the value chains, *the project will strengthen the capacity of financial institutions to devise and channel climate-friendly agribusiness investments.*	The proposed project will closely exchange with this project, in order to build on its achievements in relation to the SRP standard and capacity development of financial institutions.
12) ADB is supporting the Government of Cambodia to implement the **Climate Resilient Rice Commercialization Sector Development Program**, or Rice-SDP, to increase access to finance, equipment and infrastructure that improves rice seed quality, yields, post-harvest technology, and export potential.[26]	The proposed project builds on the technical capacities and networks developed by this project.
13) Swisscontact is implementing the **Entrepreneurship Ecosystem Building (EEB)** project, a 1-year initiative funded by Khmer Enterprise, established by the Ministry of Economy and Finance in Cambodia, USAID?s WE Act Project through Pact Cambodia and Swisscontact. The project aims to strengthen entrepreneurial ecosystems by deepening trust-based relationship among the system?s actors that will help to strengthen an enabling environment for entrepreneurial networks to form high quality connections to support entrepreneurship.[27] Additionally, from 2017-2021, Swisscontact implemented the **Regional Investment Support for Entrepreneurs (RISE)** project funded by USAID. RISE is multi-investor platform providing investment readiness and post-investment TA services for high impact enterprises in Southeast Asia (Viet Nam, Indonesia, Philippines, and Cambodia).[28] Based on the experiences of EEB and RISE, Swisscontact is developing a new 5-year project 3EI, one component of which will be to establish a multi-investor **Cambodia Blended Finance Service Facility**. Additionally, Swisscontact is implementing the Agroecology and Safe Food System Transitions in Southeast Asia (ASSET) project, a regional project funded by the Agence Fran?aise de D?veloppement (AFD), the European Union (EU), and the Fonds Fran?ais pour l?Environnement Mondial (FFEM) over five years from 2020 to 2025 in four targeted countries: Cambodia, Laos PDR, Myanmar, and Vietnam. It is also implementing the Innovation for Sustainable Agriculture (ISA) project in Cambodia from 2021 to 2024.	The project will seek linkages with these projects related to strengthening capacity of businesses and readiness for investment.
14) The Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC) was established under the leadership of MAFF to promote conservation agriculture, sustainable intensification and agroecological development in Cambodia.[29] Swisscontact, along with partners are supporting the systematic approach to regenerative agriculture which includes CASIC, the government coordination mechanism, research (Center of Excellence, CARDEC), human resource (InGuider), extension model (MerKasekor), technologies and practices (KropouchKasekor, SevaKasekor and SRP), transition financing (Dei Meas). A 3-year pilot is underway to set up a certification and verification system including carbon credit. Partners include MAFF, CIRAD, SmartAgro, Swisscontact and others.	The project will continue to coordinate with CASIC in particular when identifying the technical options

15) The JICA Project for Establishing Business Oriented Agricultural Cooperative Models[30] is supporting the establishment of business-oriented agricultural cooperative models.	The project will build on the models developed by this project
16) The **Water Resources Management and Agro-ecological Transition for Cambodia (WAT4CAM)** Program funded by AFD aims to improve an integrated water resources management as well as the irrigation system management in Cambodia.[31]	The project will seek to exchange with this project.
17) The FAO **Flexible Multi-Partner Mechanism (FMM)** project (2019-2023) is a multi-country initiative that aims to contribute to closing the gender gap in agriculture. It seeks to enhance rural women?s social and economic empowerment and strengthen their leadership roles in rural development, decision-making and resilience building while contributing to the eradication of hunger and extreme poverty. The project has piloted the Women?s Empowerment Farmer Business School (WE-FBS) approach and conducted gender-sensitive value chain analyses to identify opportunities for strengthening women?s roles in agri-food value chains. It has reached over 1,200 people (women and men) through the engagement of 60 producers? groups in 30 villages in the provinces of Siem Reap and Bantey Meanchey.	The proposed project will build on the outcomes of this project with regard to identifying opportunities for women empowerment.
Viet Nam	
1) FAO GEF-7 **Integrated Sustainable Landscape Management in the Mekong Delta of Vietnam** (GEF ID 10245)	See Appendix 3 of the ProDoc ? the proposed project links closely to this GEF-7 project.
2) **ADB GEF-7 Financing Agrochemical Reduction and Management (FARM) in Agri-Food Value Chains**, executed by the Ministry of Agriculture and Rural Development (project under development). This is a child project under the GEF UNEP Financing Agrochemical Reduction and Management (FARM) Programme. Under its Output 1.1 the project intends to conduct a regulatory/legal and capacity gap analysis at central/provincial level with respect to ?green? finance (including green metrics, ?eco-compensation? etc.) linked to agrochemicals lifecycle management. Under Output 2.1, it intends to establish a ?Green finance framework? for agri-foods industry/the horticulture sector in Viet Nam, to include options and modalities for sustainable finance and investment, including ?eco-compensation?.	The proposed project will seek to exchange and coordinate with this project, in particular related to the green finance framework and the ESG principles.
3) The World Bank in collaboration with MARD is currently designing a Results-based Carbon/Climate Finance project to support the Vietnam Low Carbon Rice Value Chain Sector Transformation. The World Bank program supports countries in accessing international carbon markets by generating surplus GHG emission reductions.	The proposed project will exchange and seek synergies with this project.
4) **GCF WB FP071: Scaling Up Energy Efficiency for Industrial Enterprises in Vietnam** (under implementation) (mitigation), with the Ministry of Industry and Trade, State Bank of Vietnam and Ministry of Finance as executing entities. The objective of the Facility is to issue partial credit risk guarantees to mobilize private sector lending and equity and contribute to opening up a market for commercially financed energy efficiency investments.	The proposed project will exchange with this project and build on its lessons learned with regard to the establishment of a risk sharing mechanism.

5) In 2021, the **Vietnam Development Bank (VDB)** was accredited as a GCF Direct Access Accredited Entity (National Implementing Entity). In the coming years, VDB aims to develop and submit funding proposals for climate change adaptation and mitigation programs and projects under GCF.[32]	Linkages with VDB will be explored during project preparation and/or implementation.
6) The **Paddy Rice Component of the Climate and Clean Air Coalition?s (CCAC) Agriculture Initiative** aims to implement the alternate wetting and drying (AWD) technology, on large scale, in Viet Nam and Bangladesh to significantly reduce methane emissions from rice fields. With support from CCAFS, IRRI coordinates the activities of this component in Viet Nam. The initiative also supports the development of an MRV framework for the Vietnamese rice sector.[33]	The proposed project will exchange with this project in relation to potential carbon finance.
7) In 2022, Sustainable Trade Initiative (IDH) announced the **Farmfit Fund**, a new credit facility of up to USD 1,000,000 to provide growth opportunities for approximately 3,300 smallholder coffee farmers across Viet Nam.[34] In 2022 also, IDH launched the **SourceUp platform** for the coffee and spices sectors in India, Indonesia and Viet Nam.[35]	The proposed project will build on the knowledge and lessons learned of this program and the platform.
8) The **AgResults Vietnam Greenhouse Gas Emissions Reduction Pilot (AVERP)[36]** is a four-year, USD 8 million, results-based financing project that aimed to reduce greenhouse gas emissions, increase rice yields and help overcome market barriers to scaling.[37] The project has led to huge scaling of low carbon rice production methods (i.e., AWD+++) in Thai Binh (Red River delta). AVERP focused exclusively on solutions aimed at reducing emissions during land preparation and cultivation of rice as most emissions occur during these stages. Results in terms of yield increases and emission reductions are verified independently and transparently by Applied Geo-Solutions, co-monitored by SNV and the Thai Binh Provincial Department of Agriculture and Rural Development.[38]	The project will build on the lessons learned of this project related to the results-based financing.
9) The **Dutch Fund for Climate & Development (DFCD)**[39], a new global partnership between the Dutch Development Bank, FMO, Climate Fund Managers (CFM), World Wildlife Fund Netherlands (WWF) and Netherlands Development Organisation (SNV), is providing finance and technical assistance to projects with a focus on climate change adaptation, including climate-resilient water systems and freshwater ecosystems, forestry, climate-smart agriculture, and restoration of ecosystems to protect the environment. The project is providing technical assistance and grant support for companies to develop bankable investment projects, that can then graduate for investment by one of the DFCD partners (FMO ? land use/agriculture; CFM ? water). One of its priorities in Viet Nam is organic/sustainable shrimp production with >50% mangrove cover on farms along the coast; as well as the development of climate resilient rice seeds (with Vinaseed)[40].	The project will build on the lessons learned of this project related to the development of bankable investment projects, and will explore synergies for potential investments under the facility
10) The International Climate Initiative (IKI)-funded SNV-IUCN **VN-ADAPT project** (2023-2026) will be working in the upper Mekong Delta Region on transitioning to Flood-based Agriculture, including Nature-based Solutions such as lotus, floating rice, rice-fish, rice-shrimp.	The proposed project will seek to exchange with this project for potential pipeline projects.

[1] It should be noted that the identified Operational Partner(s) or OP, results to be implemented by the OP and budgets to be transferred to the OP are non-binding and may change due to FAO internal partnership and agreement procedures which have not yet been concluded at the time of submission of this funding proposal.

[2] SRLI is a partnership between WBCSD, the UN Environment Programme (UNEP), FAO, the Sustainable Rice Platform (SRP), the German Agency for International Cooperation (GIZ) and the International Rice Research Institute (IRRI).

[3] https://www.rabobank.com/en/images/AGRI3Fund_brochure.pdf

[4] https://www.unep.org/resources/case-study/agri3-fund-launched-dutch-government-and-rabobank-anchor-investors and
https://agri3.com/impacts-and-es-framework/ (retrieved February 2022)

[5] https://www.greenclimate.fund/document/asean-catalytic-green-finance-facility-acgf-green-recovery-program

[6] https://www.greenclimate.fund/document/global-subnational-climate-fund-sncf-global-equity

[7] https://policy-practice.oxfam.org/resources/the-gender-transformative-and-responsible-agribusiness-investments-in-south-eas-620631/

[8] https://www.fao.org/in-action/scala/en

[9] https://www.greenclimate.fund/sites/default/files/document/26470-thai-rice-strengthening-climate-smart-rice-farming.pdf

[10] https://goodfood.finance/

[11] GSSD (2017). National Adaptation Plan Financing Framework and Implementation Plan.

[12] https://www.growasia.org/regional-programs

[13] https://www.thegef.org/project/integrating-climate-change-adaptation-sustainable-development-pathways-bangladesh

[14] https://www.greenclimate.fund/document/bangladesh-country-programme

[15] https://www.greenclimate.fund/countries/bangladesh

[16] https://www.greenclimate.fund/document/strengtheningbangladesh-s-nda-secretariat-enhancing-pipeline-implementationand-private

[17] https://www.greenclimate.fund/document/strategic-frameworks-support-cambodia-through-mekong-strategic-partners

[18] https://www.greenclimate.fund/countries/cambodia

[19] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/transforming_rice_industry_building_export_capacity_cambodia

[20] https://projects.worldbank.org/en/projects-operations/project-detail/P165344

[21] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/868251549249274609/cambodia-agricultural-sector-diversification-project

[22] https://www.ifad.org/en/web/operations/-/project/2000003433

[23] https://www.greenclimate.fund/project/fp076 and https://www.adb.org/projects/48409-002/main

[24] https://www.greenclimate.fund/story/cambodia-s-climate-action-game-changer-resilient-agricultural-value-chains

[25] Including laser land levelling, alternate wetting and drying, sustainable agricultural waste management, rational use of inputs (water, energy fertilizers, and pesticides), agro-forestry and soil cover maintenance techniques, anti-erosive landscaping, as well as other modern practices that result in reduction of GHG emissions from cropping, and the practical applications relating to standards compliance.

[26] https://www.adb.org/news/videos/promoting-climate-resilience-cambodia-s-rice-sector

[27] https://www.swisscontact.org/en/projects/entrepreneurship-ecosystem-building

[28] https://rise-platform.org/about-us/

[29] https://www.casiccambodia.net/post/a-roadmap-for-regenerative-agriculture-modernization-in-cambodia

[30] https://www.jica.go.jp/project/english/cambodia/019/outline/index.html

[31] https://wat4cam-mowram.com/en/about-us

[32] https://en.vdb.gov.vn/news10861/vietnam-development-bank-is-officially-accredited-as-nie-of-gcf

[33] https://www.ccacoalition.org/en/initiatives/agriculture

[34] https://www.idhsustainabletrade.com/news/press-release-idh-farmfit-fund-provides-us-1000000-loan-to-grow-input-financing-program-at-acom-vietnams-fifth-largest-coffee-exporter/

[35] https://sourceup.org/

[36] https://snv.org/project/averp-agresults-vietnam-emissions-reduction-pilot

[37] AgResults is a USD 152 million multilateral initiative that uses Pay-for-Results prize competitions to incentivize, or ?pull?, the private sector to overcome agricultural market barriers by investing in innovative research and delivery solutions that improve the lives of smallholder farmers. https://agresults.org/

[38] Viet Nam GEF-7 Project Document, ?Integrated Sustainable Landscape Management in the Mekong Delta of Vietnam? (GEF ID 10245).

[39] https://www.fmo.nl/l/en/library/download/urn:uuid:58080e05-ba8a-444b-bfc8-cad3a8b21ac6/executive+summary+dfcd.pdf

[40] https://thedfcd.com/2021/07/22/the-dfcd-supports-climate-resilient-rice-in-the-mekong-delta/

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

1. Four of the world?s ten largest rice producers refer specifically to rice in their **updated NDCs** (Bangladesh, China, Myanmar and Viet Nam). Overall, 24 countries globally mention rice (adaptation and/or mitigation) in their new or updated NDCs, compared to 18 in the previous NDCs.[1] As for the three target countries and rice actions included in their NDCs, Bangladesh refers to mitigation only, Cambodia to adaptation only, and Viet Nam to both mitigation and adaptation.

2. Bangladesh?s updated NDC sets specific targets to reduce methane emissions from rice and commits to scaling up Alternate Wetting and Drying (AWD) in at least 20% of rice production by 2030.[2] Cambodia?s updated NDC includes adaptation actions such as the development of rice crops for increased production, improved quality and safety; harvesting and post harvesting technique and agrobusiness enhancement; as well as improvement of support services and capacity building to crop production resilient to climate change.[3] Viet Nam?s updated NDC includes measures such as replacing long-duration rice varieties with short-duration ones, increasing areas with mid-season water drainage and alternating wet and

dry irrigation techniques, and increasing areas with integrated crop management (ICM) or areas with the ?3 decrease 3 increase (3G3T)? and ?1 must 5 decrease (1P5G)?. [4] Additionally, all three countries? updated NDCs explicitly refer to the market mechanisms under Article 6 of the Paris Agreement, paving the way for potential future voluntary payments under the Internationally Transferred Mitigation Outcomes (ITMOs). Further details on relevant national strategies and plans are provided below.

National plan	Linkages with the project
Bangladesh	
1) Bangladesh Nationally Determined Contribution (2015) and updated NDC (2021)	The proposed project directly contributes to the targets set out in Bangladesh?s NDC. One of the priority adaptation activities included in its NDC in 2015 was ?Stress tolerant (salinity, drought and flood) variety improvement and cultivation (including livestock and fisheries)?. Bangladesh?s updated NDC sets specific targets to reduce methane emissions from rice and commits to scaling up Alternate Wetting and Drying (AWD) in at least 20% of rice production by 2030. With regard to adaptation, it refers to the National Adaptation Plan (NAP) currently under development, as well as the NAPA and BCCSAP described below.
2) National Adaptation Plan (NAP) Process initiated in 2019	The project is expected to directly contribute to the adaptation priorities that will be defined in the NAP.[5]
3) Bangladesh Third National Communication to the UNFCCC (2018)	The proposed project is consistent with the following areas of intervention and adaptation actions outlined in Bangladesh?s Third National Communication to address the adverse impacts of climate change: [6] - Food security, livelihood and health protection (including water security). - Development of climate resilient cropping systems. - Development and dissemination of stress tolerant (salinity, drought and flood) varieties of rice; improved varieties of livestock and fisheries.
4) Climate Change Strategy and Action Plan (BCCSAP) in 2009	The project will contribute to the following programmes of the BCCSAP: 1. Food security, social protection and health 1.1 Increase the resilience of vulnerable groups, including women and children, through development of community-level adaptation, livelihood diversification, better access to basic services and social protection (e.g., safety nets, insurance) and scaling up. 1.2 Develop climate change resilient cropping systems (e.g., agricultural research to develop crop varieties, which are tolerant of flooding, drought and salinity, and based on indigenous and other varieties suited to the needs of resource poor farmers), fisheries and livestock systems to ensure local and national food security.
5) National Adaptation Programme of Action (NAPA) 2005 (updated 2009)	The project contributes to the following adaptation measures outlined in the NAPA: 1. Develop climate change resilient cropping systems (e.g., agricultural research to develop crop varieties, which are tolerant of flooding, drought and salinity, and based on indigenous and other varieties suited to the needs of resource poor farmers), fisheries and livestock systems to ensure local and national food security. 2. Introduce and scale up existing innovative technologies to deal with flood, drought and salinity.

6) Eighth Five-Year Plan of Bangladesh, FY2020 ? FY2025	The proposed project contributes to the following strategies outlined in the Eighth Five-Year Plan: *Strategy for Agriculture and Water Resource Management:* 1. To extend credit facilities to farmers through banks and other financial institutions at a low rate of 2%. 2. Minimising the impact of the COVID-19 pandemic 3. Introduction and popularization of Good Agricultural Practices (GAP) 4. Promote measures to expand mechanization and value chain development 5. Post-harvest management 6. Increasing women and youth participation in agriculture *Social Protection, Social Welfare and Social Inclusion, Food Security and Nutrition:* 1. Maintaining agricultural growth 2. Increasing storage capacity and modernization
7) National Report on Land Degradation Neutrality Target Setting Programme (2018)[7]	The following targets were identified by the Government of Bangladesh in 2018 to achieve LDN by 2030: ? Target 1): To improve soil fertility and Carbon stock in 2000 km2 of cropland area. ? Target 2): To reduce land use/cover conversion in 600 km2 of forest area. ? Target 3): To reduce waterlogging in 600 km2 area. ? Target 4): To reduce soil erosion in hilly areas in 600 km2 area. ? Target 5): To protect non-saline land areas from salinity intrusion in 1200 km2 in the coastal zone area. ? Target 6): To reduce riverbank erosion @100ha/year covering 100 km2 areas.
Cambodia	
1) Cambodia Nationally Determined Contribution (NDC) (2015) and updated NDC (2021)	The proposed project is consistent with Cambodia?s NDC. The priority adaptation actions in the NDC include, among others, promoting an agroecological transition in the uplands of Battambang; the development rice crops, horticulture and other food crops for increased production, improved quality-safety; harvesting and post harvesting technique and agro-business enhancement; and the development of new technologies and increased yields by using new crop varieties adapted to climate change. The updated NDC also indicated detailed technology needs in the agricultural sector for climate smart practices, ranging from stress-tolerant varieties to systems of rice intensification to integrated pest management and integrated soil and nutrient management.[8]
2) National Adaptation Programme of Action to Climate Change (NAPA) (2006)	The project is consistent with the priorities identified in the NAPA, in particular: 1. Development and Improvement of Community Irrigation Systems 2. Improving Farmers? Adaptive Capacity to Climate Change
3) Cambodia Climate Change Strategic Plan (CCCSP) 2014-2023 and sectoral Climate Change Action Plans (CCAPs)	The project contributes, among others, to the following priorities identified in the Agriculture, Forestry and Fisheries Sector CCAP:[9] 1. Promoting and upscaling sustainable farming system that is resilient to climate change 2. Promote post-harvest technology for cereal and tuber crops

4) National Adaptation Plan Process in Cambodia (2017) National Adaptation Plan Financing Framework and Implementation Plan (2017)	The project is consistent with the following NAP objectives and priority actions in Cambodia, building on the thematic objectives and priorities of the CCCSP and the sectoral climate change action plans: 1. To promote climate resilience through improving food, water and energy security. 2. To reduce sectoral, regional, gender vulnerability and health risks to climate change impacts.
5) General Secretariat of National Council for Sustainable Development (2016). Promoting Private Sector Contributions to the Climate Change Response in Cambodia.	The proposed project is consistent with the following recommendations aimed at strengthening the private sector response to climate change in Cambodia. ? #13 Reinforce resilience of small producers through training and market consolidation ? #14 Build a resilient agriculture/fishery supply chain ? #20 De-risk green lending to SMEs and households: Explore feasibility of a national guarantee fund (or facility). ? Encourage economies of scale through farmers association (irrigation, purchase agreement, supply chain)
6) Cambodia Land Degradation Neutrality Targets (2018)[10]	The following targets were set by the Royal Government of Cambodia in 2018: ? Target 1. By 2030, forest cover will be increased to 47% of the total land area. ? Target 2. By 2030, increase in agricultural growth by 5% per annum as compared to 3% in 2016. ? Target 3. By 2030, soil organic carbon (SOC) stock in forest and cropland will be increased by 1.2% per year as compared to 2015. ? Target 4. By 2030, ecosystems and their services are maintained and enhanced.
Viet Nam	
1) Viet Nam Nationally Determined Contribution (NDC) (2015) and updated NDC (2020)	The proposed project is consistent with the priority adaptation and mitigation measures outlined in Viet Nam?s NDC. Viet Nam?s updated NDC includes measures such as replacing long-duration rice varieties with short-duration ones, increasing areas with mid-season water drainage and alternating wet and dry irrigation techniques, and increasing areas with integrated crop management (ICM) or areas with the ?3 decrease 3 increase (3G3T)? and ?1 must 5 decrease (1P5G)?.
2) National Adaptation Plan (NAP) process: currently ongoing, started in 2021	The project is consistent with the objectives of the National Climate Change Adaptation Plan including to: (i) Reduce vulnerabilities to climate change impacts, by enhancing adaptive capacity and resilience; (ii) Enhance the integration of climate change adaptation actions into relevant policies, strategies, programs and projects, especially in socio-economic development planning of ministries, branches and localities.
3) Viet Nam Third National Communication to the UNFCCC (2018)	In the TNC, Viet Nam identified a number of gaps and needs in responding to climate change. This includes, among others, the development of criteria for monitoring and evaluation of climate change adaptation actions; and adopting technologies on sustainable agricultural, forestry and fishery production. The proposed project contributes to addressing these gaps.

4) National Strategy for Climate Change (2022)	The proposed project will contribute to the following objectives of the National Strategy for Climate Change: by 2030 (i) to control the degradation of water resources and land resources, to ensure an adequate balance of water sources to serve daily life, industry, services and important economic sectors; (ii) The crop production and livestock production system is transformed towards intelligent adaptation to climate change; develop sustainable agriculture, forestry and fishery value chains; ensure food security and national nutritional balance; and by 2050 (i) Effectively manage water and land resources, improve environmental quality for socio-economic development; firmly ensure the security of national water resources; (ii) Continue to develop smart agriculture modern/system, effectively adapting to climate change and having high added value.
5) Plan for restructuring the agriculture sector for the period 2021-2025	Among others, the plan aims to increase organic fertilisers and bio-pesticides; promote the development of organic rice production; and diversify the products processed from rice and rice by-products (straw, straw, husk, bran) to increase added value.
6) MARD action plan for green growth of agriculture sector for 2021-2030	The action plan promotes the green and sustainable agriculture development.
7) Final Country Report of the Land Degradation Neutrality Target Setting Programme (2018)[11]	National Voluntary LDN targets of Viet Nam: (1) Agriculture •Irrigation water savings through new technologies and initiatives (including agroforestry technology). 200,000 ha with local resources, 500,000 hectares with international resources. •Water efficiency technology in coffee irrigation. 120,000 ha with local resources. (2) Forestry •Forest protection (1 million ha with local resources, 2 million ha with international resources) •Natural forest restoration (160,000 ha + 250,000 ha) •Afforestation (275,000 ha + 100,000 ha) •Forest plantation with large timber species (80,000 ha + 100,000 ha)

[1] CCAFS (2021). Rice cultivation ambition in the new and updated Nationally Determined Contributions: 2020-2021.

[2] Bangladesh Updated Nationally Determined Contribution (2021).

[3] CCAFS (2021).

[4] The Socialist Republic of Viet Nam (2020). Updated Nationally Determined Contribution (NDC).

[5] https://www.bd.undp.org/content/bangladesh/en/home/projects/national-adaptation-plan--nap-.html

[6] Third National Communication of Bangladesh to the UNFCCC (2018).

[7] Department of Environment, MoEFCC, Government of the People?s Republic of Bangladesh (2018). National Report on Land Degradation Neutrality Target Setting Programme.

[8] Cambodia?s Updated Nationally Determined Contribution (2020).

[9] https://portal.gms-eoc.org/uploads/resources/1997/attachment/ccap-agriculture-forestry-fisheries-2014-2018-en-final.pdf

[10] Kingdom of Cambodia, Ministry of Agriculture, Forestry and Fisheries (2018). Land Degradation Neutrality Targets.

[11] The Socialist Republic of Viet Nam Hanoi (2018). Final Country Report of the Land Degradation Neutrality Target Setting Programme.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

1. Knowledge management will be addressed in Component 3 of the project. Under Output 3.1, the project will identify and establish adaptation metrics and key performance indicators (KPIs) for program M&E, impact and Environmental, Social and Governance (ESG) monitoring of the financial mechanism. These will enable the fund to generate data and knowledge on the impacts of the fund. Under Output 3.2, knowledge related to the establishment and implementation of the financial mechanism will be captured and shared with relevant stakeholders nationally and regionally to support adaptive learning, replication and scaling up. In this way, the project will promote exchange of knowledge and information with national governments, financial intermediaries, value chain partners/counterparts/ borrowers, and farmers organizations. At the beginning of the project, a KM and communications strategy will be developed.

2. By collaborating with the wider knowledge management efforts under the Sustainable Rice Landscapes Initiative (SRLI), the Facility will contribute to a larger body of knowledge. SRLI?s M&E and Knowledge Management System (KMS) builds on the ICRISAT MEASURE (Monitoring and Evaluation of Agri-Science Uptake in Research and Extension) platform. It aims to capture indicators at various levels, including the SRP Performance Indicators, FAO?s Tool for Agroecology Performance Evaluation (TAPE), national-level indicators, as well as the Sustainable Development Goals (SDGs), as shown in Figure 11 below.

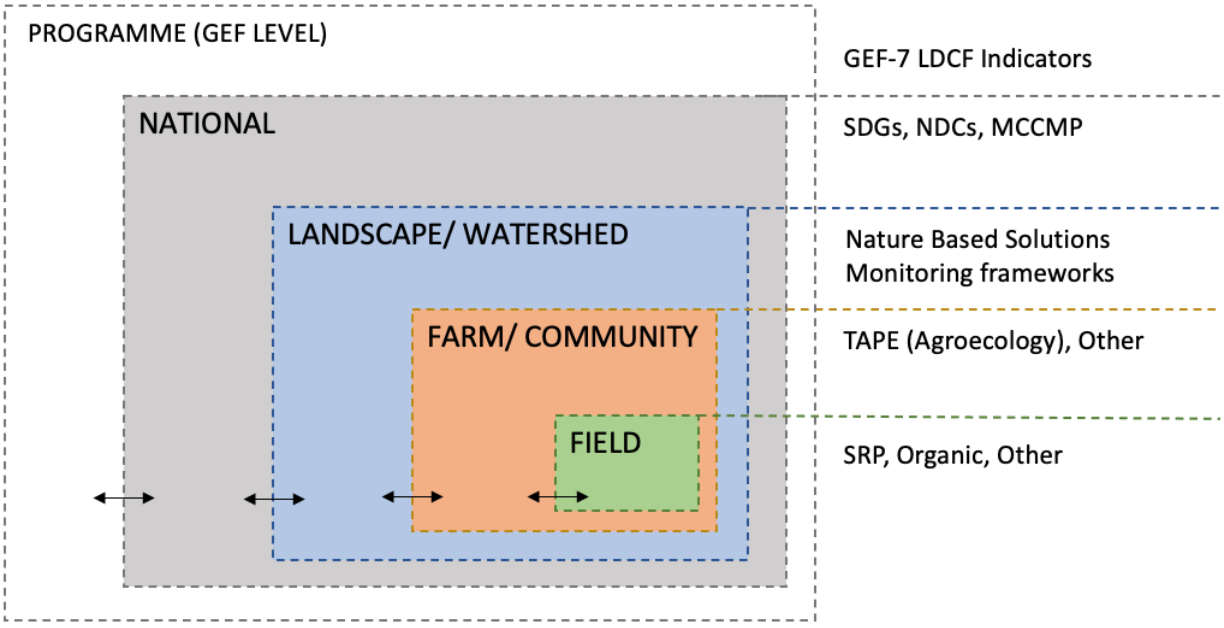

Figure 11: Draft indicator framework for SRLI projects

3. The relevant initiatives that the project builds on and intends to learn from through its knowledge management mechanisms are mentioned in *Section 2) Baseline scenario* and *Section 6.b Coordination*. These include, in particular, the AGRI3 fund, the Food Securities Fund, Winrock?s Net-Zero Adaptation Finance, and the ASEAN Catalytic Green Finance Facility. Additionally, through the regional SRLI

initiative, the proposed project will also exchange and build on lessons learned of Thailand?s Bank for Agriculture and Agricultural Cooperatives (BAAC).

4. The relevant KM budget and key deliverables are shown below, as reflected in the budget in Annex A2.

Deliverable	Timeline	Budget (USD)
A. Knowledge sharing. Develop and implement gender-sensitive KM and communications strategy.	Year 1-2	- Contract with service provider: USD 18,000
B. Convening, advocacy and market linkages. Convening of and outreach to business partners on financial mechanism and its scaling.	Year 1-2	- International / regional travel = USD 8,349 - Meeting costs 3 countries x USD 3,500 = 10,500
Total Budget		**36,849**

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. The project results, as outlined in the project results framework (Annex A1), will be monitored regularly, reported annually and assessed during project implementation to ensure the project effectively achieves these results. Monitoring and evaluation activities will follow FAO and GEF?s policies and guidelines for monitoring and evaluation. The M&E system will also facilitate learning, replication of the project?s results and lessons which will feed the project?s knowledge management strategy.

Monitoring Arrangements

2. Project oversight and supervision will be carried out by the Budget Holder (BH) with the support of the Project Task Force (PTF), Lead Technical Officer (LTO) and Funding Liaison Officer (FLO) and relevant FAO Country Offices and technical units in FAO headquarters. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed project global environmental benefits / adaptation benefits are being delivered.

3. The FAO-GEF Coordination Unit and HQ Technical units will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions as needed.

4. Day-to-day project monitoring will be carried out by the Project Management Unit (PMU)/Operational Partner (OP). Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At inception phase, the results matrix will be reviewed to finalize the identification of i) outputs ii) indicators iii) targets and iv) any missing baseline information

5. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc) will also be developed during project inception by the PMU?s/OP?s Regional Technical Coordinator & M&E Specialist.

The timeline of key M&E activities, a budget, and roles and responsibilities are presented in the table below.

Project Monitoring and Evaluation Plan

M&E Activity	Responsible Parties	Timeframe	GEF Budget (USD)

M&E Activity	Responsible Parties	Timeframe	GEF Budget (USD)
Inception Workshop	PMU/OP	Within two months of project document/OPA signature	n/a (regional-virtual)
Meetings to establish in-country cross-sector working groups	PMU/OP	Within 2 months of national Inception Workshop	n/a (budgeted under components)
Project Inception Report	PMU/OP	Within two weeks of inception workshop	15,000 Regional Technical Coordinator and M&E Specialist
Project Progress Reports (PPRs)	PMU/OP, LTO, BH	Annually	
Project Implementation Review reports (PIRs)	PMU/OP, LTO, BH, FLO	Annually in July	
Terminal Evaluation	The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	To be launched within six months prior to the actual project completion date	50,000
Terminal Report	PMU/OP, BH, LTO	Two months before the end date of the project	6,550
Total Budget			**71,550**

Monitoring and Reporting

6. In compliance with FAO and GEF M&E policies and requirements, the PMU/OP, in consultation with the Project Steering Committee (PSC) and PTF will prepare the following i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) annual Project Implementation Review (PIR); (v) Technical Reports; (vi) Co-financing reports; and (vii) Terminal Report. In addition, the Core Indicators included in Annex A1 will be used to monitor Global Environmental Benefits and updated regularly by the PMU/OP.

7. **Project Inception Report**. A project inception workshop will be held within two months of project start date and signature of relevant agreements with partners. During this workshop the following will be reviewed and agreed:

? The proposed implementation arrangement, the roles and responsibilities of each stakeholder and project partners;

? An update of any changed external conditions that may affect project implementation;

? The results framework, the SMART indicators and targets, the means of verification, and monitoring plan;

? The responsibilities for monitoring the various project plans and strategies, including the risk matrix, the gender strategy, the knowledge management strategy, and other relevant strategies;

? Finalize the preparation of the first year AWP/B, the financial reporting and audit procedures;

? Schedule the PSC meetings;

? Prepare a detailed first year AWP/B.

8. The PMU/OP will draft the inception report based on the agreement reached during the workshop and circulate among PSC members, BH (i.e., FAO-RAP), LTO and FLO for review within one month. The final report will be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FAO?s Field Program Management Information System (FPMIS) by the BH.

9. **Results-based Annual Work Plan and Budget (AWP/B)**. The draft of the first AWP/B will be prepared by the PMU/OP in consultation with the project partners and the FAO Project Task Force, reviewed at the project Inception Workshop, and submitted to the Project Steering Committee (PSC). The Inception Workshop and PSC inputs will be incorporated and subsequently, the PMU/OP after approval by the PSC will submit a final draft AWP/B to the BH within two weeks after the first PSC meeting. For subsequent AWP/B, the PMU/OP will organize a project progress review and planning meeting for its progress review and adaptive management. Once PSC comments have been incorporated and after approval by the PSC, the PMU/OP will submit the AWP/B to the FAO BH for non-objection, LTO and the FAO GEF Coordination Unit for comments and for clearance by BH and LTO prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project?s Results Framework indicators to ensure that the project?s work and activities are contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year.

10. **Project Progress Reports (PPR)**: The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Annex A1), AWP/B and M&E Plan. Each semester the Regional Technical Coordinator & M&E Specialist will prepare a draft PPR, will collect and consolidate any comments from the Project Executive Members and FAO PTF. The PMU/OP will submit the final PPRs to the PSC and to FAO-RAP every six months, prior to 31 July (covering the period between January and June) and before 31 January (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR, in consultation with the PMU/OP, LTO and the FLO. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

11. **Annual Project Implementation Report (PIR)**: The PIR is a key self-assessment tool used by GEF Agencies for reporting every year on project implementation status. It helps to assess progress toward achieving the project objective and implementation progress and challenges, risks and actions that need to be taken. Under the lead of the BH, the Regional Technical Coordinator & M&E Specialist in consultation with the Project Executive Members and the FAO PTF will prepare a consolidated annual PIR report covering the period July (the previous year) through June (current year) for each year of implementation, in collaboration with national project partners (including the GEF OFP), the Lead Technical Officer, and the FLO. The Regional Technical Coordinator & M&E Specialist will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission and report these results in the draft PIR. The PMU/OP will submit the final PIRs to the PSC and to the BH (FAO-RAP).

12. The BH will be responsible for consolidating and submitting the PIR report to the FAO-GEF Coordination Unit for review by the date specified each year. The FAO-GEF Funding Liaison Officer (FLO) reviews the PIR and discusses the progress reported with the BH and LTO as required. The BH will submit the final version of the PIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will then submit the PIR to the GEF Secretariat as part of the Annual Monitoring Review of the FAO-GEF portfolio.

13. **Technical Reports**: Technical reports will be prepared as part of project outputs and to document and share project outcomes and lessons learned. The LTO will be responsible for ensuring appropriate technical review and clearance of technical reports. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

14. **Co-financing Reports**: The PMU/OP will be responsible for tracking co-financing materialized against the confirmed amounts at project approval and reporting. The co-financing report, which covers the GEF fiscal year 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The co-financing report needs to include the activities that were financed by the contribution of the partners.

15. **Tracking and reporting on results across the GEF 7 core indicators and sub-indicators**: As of July 1, 2018, the GEF Secretariat requires FAO as a GEF Agency, in collaboration with recipient country governments, executing partners and other stakeholders to provide indicative, expected results across applicable core indicators and sub-indicators for all new GEF projects submitted for Approval. During the approval process of the project, expected results against the relevant indicators and sub-indicators were provided to the GEF Secretariat. Throughout the implementation period of the project, the PMU/OP is required to track the project?s progress in achieving these results across applicable core indicators and sub-indicators. In the annual PIRs and at project completion stage, the project team in consultation with the PTF and the FAO-GEF Coordination Unit are required to report achieved results against the core indicators and sub-indicators used at CEO Endorsement.

16. **Terminal Report**: Within two months before the end date of the project, the PMU/OP will submit to FAO Headquarters a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

Evaluation provisions

17. **Terminal Evaluation**: The GEF evaluation policy foresees that all Medium and Full-sized projects require a separate terminal evaluation. Such evaluation provides: i) accountability on results, processes, and performance ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

18. The Budget Holder will be responsible to contact the **Regional Evaluation Specialist (RES)** within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the ?GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects?. FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralized Evaluation Support team ? in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

19. After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within 4 weeks and share it with national partners, GEF OFP, OED and the FAO-GEF CU. The BH will also send the updated core indicators used during the TE to the FAO-GEF CU for their submission to the GEF Secretariat.

20. The evaluations will also assess how the OPA implementation and partnership agreement influenced the achievement and sustainability of results while contributing to enhance capacities of the OP/s. In doing so, the evaluation will consider the brief guidance note and evaluation questions OED has developed in consultation with the OPIM unit.

Disclosure

21. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

1. As explained above, the project will enhance the capacity of an estimated 6-9 organizations (financial institutions, farmers? organizations, private sector) and about 6,250 individuals (50% women[1], 25% youth[2]) (e.g., financial institution staff, private sector representatives, farmer organization members, agricultural cooperatives, producers). It is anticipated that this will lead to approximately 12,000 direct beneficiaries (50% women350, 25% youth) from more resilient physical and natural assets and/or diversified and strengthened livelihoods and sources of income. Furthermore, it is estimated that the future investment of the Facility will benefit a much larger number of beneficiaries. The Finance Facility to be established through the support of this project will contribute to full and productive employment and decent work in rural areas by providing additional sources of financing for climate-resilient rice value chains and livelihoods.[3] As noted in Section 5.B, the project will develop an ESG policy, a gender mainstreaming plan (incl. youth) and other safeguard documents for the Facility in line with FAO, GEF and potential donor requirements.

2. The loans and grants of the future Finance Facility are expected to increase the climate resilience of rice farmers and livelihoods through the following:

- ? Enhanced access to finance (e.g., lower interest rates or longer tenors).
- ? Increased access to services, including weather advisories and early warning systems, in particular for women and vulnerable groups.
- ? Improved access to post-harvest services and infrastructure (drying, storage, milling).
- ? Access to high-quality, climate-resilient seeds.
- ? Sustainable and diversified practices, e.g., improved water management, soil and nutrient management, and integrated pest management, leading to improved resilience at farm level and of agro-ecosystems.
- ? Contracts with offtakers, leading to more stable market access.
- ? Enhanced capacities and farmer organization.

3. Gender and youth considerations have been incorporated into the project design (see Annex A1 results framework and Annex H work plan). Under Component 2, the project will ensure that women, youth, and women agri-entrepreneurs benefit from the project?s capacity building and technical assistance. Women and youth are also explicitly referenced in the adaptation options potentially to be supported by the future Finance Facility, such as (1) Increased access to credit, in particular for women and youth, and (2) Empowerment and enhance capacities of women and youth. Furthermore, the project builds on SRP Performance Indicator 11 on Child Labor and Youth Engagement and its Child Labor and Youth Inclusion Scorecard, and SRP Performance Indicator 12 on Women empowerment and its Women?s Empowerment

Scorecard.[4] The design of the financial mechanism should also take into account vulnerable groups such as agricultural workers, migrant workers and the landless.

4. Note: FAO holds a zero-tolerance policy toward child labour. The project will ensure compliance with FAO?s Framework on Ending Child Labour in Agriculture.[5] In line with this framework, youth (15-17 years) can be engaged as beneficiaries for non-hazardous work in line with the definition of the framework. Age-appropriate job training could be provided to youth that are ?Not in Education, Employment, or Training? (NEET) to provide opportunities for livelihood improvement. Before undertaking any activities that engage youth aged 15-17 years in job training or any other work-related activities, the PMU would seek additional guidance from the child labour focal point in FAO HQ. The project will aim to collect age- (and sex-) disaggregated data where feasible. Internationally, youth is typically defined as age group between 15-24 years. The SRP Performance Indicators for Sustainable Rice Cultivation Version 2.1 indicates age 15 to 30. It also notes that further definition of youth might be needed according to national context. In Bangladesh, the official characterization of youth refers to persons between ages 18-35. However, the youth data from the Bangladesh Bureau of Statistics (BBS) is based on the 15-29-years age range.[6] In Cambodia, the National Policy on Youth Development (2011) defines youth as between 15-30 years.[7] According to Viet Nam?s Youth Law and Vietnamese Youth Development Strategy 2011-2020, youth is defined as aged 16-30 years.[8] For the purpose of the M&E framework of this project, the definition of 15-30 years will be used. However, this will be further defined in the safeguards documents to be elaborated for the Finance Facility under Component 3 of this project.

5. Please also refer to the Gender Analysis and Action Plan in Annex N.

Decent Rural Employment

6. The project will prioritize the creation of more and better employment opportunities, especially for women and youth with specific targeting (50% women and 25% youth of total direct beneficiaries). Through the project life-cycle, the project will apply principles, practices and techniques that are best suited to avoiding the violation of, and promoting the application of core international labour standards, other international labour standards relevant to the agri-food sectors, and national employment and labour laws. Health and safety risks are considered as minor as the project involves mostly technical assistance and does not include any activities on the ground other than capacity development. Nevertheless, the project will ensure that adequate measures are taken to ensure safety of workers and farmers during the project?s activities. The necessary measures will also be incorporated into the safeguards documents of the finance facility, which will be elaborated as part of Component 3.

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[1] A lower percentage may apply in Bangladesh given the local context.

[2] Aged 15-30 years old.

[3] For more information on FAO?s work on decent rural employment and related guidance materials please consult the FAO thematic website at: http://www.fao.org/rural-employment/en/.

[4] https://www.sustainablerice.org/wp-content/uploads/2021/10/203-SRP-Performance-Indicators-Version-2.1.pdf

[5] FAO (2020). FAO Framework on Ending Child Labour in Agriculture.

[6] Women and Youth Empowerment Division, Resilience and Social Development Department (2019). Country Youth Profile. Islamic Development Bank.

[7] Royal Government of Cambodia (2011). National Policy on Youth Development. Prepared by Ministry of Education, Youth and Sports.

[8] Ministry of Home Affairs of Viet Nam (2012). Youth Law and Vietnamese Youth Development Strategy 2011-2020.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Low	Low		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

1. The GEF project has been assessed low risk, as it involves mostly technical assistance and does not include any activities on the ground other than capacity development. Nevertheless, safeguards issues need to be considered in the development of the future Finance Facility and have been incorporated into the project design. Under Output 3.1, the project will analyse safeguards issues for the financial mechanism and will define indicators for Environmental, Social and Governance (ESG) monitoring. These indicators will measure the Fund?s performance against agreed environmental and social outcomes and will ensure that the Fund?s investments will not result in any negative environmental and social impacts. The project will develop an ESG policy, a gender mainstreaming plan (incl. youth), stakeholder engagement plan, accountability and grievance mechanism and other safeguard documents for the Facility in line with FAO, GEF and potential donor requirements, including IFC?s Performance Standards on Environmental and Social Sustainability (IFC PS)[1]. Experiences from the ESG policies of the AGRI3 Fund[2], the Food Securities Fund[3] and other relevant funds[4] will be taken into consideration. The project can also build on SRP Performance Indicator 11 on Child Labor and Youth Engagement and its Child Labor and Youth Inclusion Scorecard, and SRP Performance Indicator 12 on Women empowerment and its Women?s Empowerment Scorecard. The design of the financial mechanism should also consider vulnerable groups such as agricultural workers, migrant workers and the landless. Please also refer to Annex J for an analysis related to Indigenous Peoples.

Environmental and Social Risk Classification: low risk **X** moderate risk high risk

[1] IFC Performance Standards.

[2] https://agri3.com/impacts-and-es-framework and https://www.idhsustainabletrade.com/landscapes/agri3-fund/

[3] https://www.vistra.com/sites/default/files/2022-03/220223%20FSF%20ESG%20Policy%5B9%5D.pdf

[4] See also the Environmental and Social Management Framework (ESFM) of the ASEAN Catalytic Green Finance Facility.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex J Indigenous Peoples_1Dec2022	**CEO Endorsement ESS**	
Annex I3_Grievance Redress Mechanism	**CEO Endorsement ESS**	
ESS checklist	**CEO Endorsement ESS**	
ESS risk certification	**CEO Endorsement ESS**	
Climate risk screening	**Project PIF ESS**	
ESS checklist	**Project PIF ESS**	
ESS risk certification	**Project PIF ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Annex A1: Project Results Framework

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective: To catalyse public and private financing for climate-resilient rice landscapes, value chains and livelihoods							
Objective-level indicators/Core Indicators							
LDCF/SCCF Core Indicators See Climate Change Adaptation Tracking Tool (Annex F) for more details	a) **Core Indicator 1:** Total no. of direct beneficiaries (m/f), including: - Total no. of direct beneficiaries from more resilient physical and natural assets - Total no. of direct beneficiaries with diversified and strengthened livelihoods and sources of income	-	**6,000** (50% women[1], 25% youth[2]) (50% of final target)	**12,000** (50% women358, 25% youth) as a result of the trainings under Output 2.2 (SRP, other partners)[3]	Training reports of the project and/or its partners Reports from partners on the application of SRP/ improved practices	At least 50% of the farmers trained will apply improved practices after receiving the training Improved practices lead to climate resilience	PMU
	b) **Core Indicator 2:** Area of land managed for climate resilience (ha)	-	**750 ha** (50% of final target)	**1,500 ha** (average of 0.5 ha per farmer household)			PMU
	c) **Core Indicator 4:** Total no. of people trained	-	**3,125** (50% women358, 25% youth) (50% of final target)	**6,250** (50% women358, 25% youth) (see Outcome 2 below).	Training reports of the project and/or its partners	-	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	d) No. of financial instruments or models to enhance climate resilience developed	-	-	**1** (Finance Facility)	Project reports	-	PMU
	e) No. of institution(s) with increased ability to access and/or manage climate finance	-	**3**	**6-9** (financial institutions, private sector as a result of Output 2.1)	Reports of trainings and/or other capacity development activities	-	PMU
	f) Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance	-	-	**1** (governance mechanism/design for the facility)	Design documents	-	PMU
Component 1: Designing an integrated financing mechanism to increase investments in climate-resilient rice landscapes, value chains and livelihoods							
Outcome 1: Integrated financing mechanism designed leading to increased access by producers and other value chain actors to financing for climate-resilient rice[4] landscapes, value chains and livelihoods	a) Financing mechanism involving a Resilient Rice Landscapes (RRL) Facility and associated funds[5] designed	-	-	Detailed design of Facility and associated funds is available, including governance arrangements, eligibility and ESG criteria	Design documents, proposals to funding partners	Sufficient financing can be secured for the financing mechanism, such as from the Green Climate Fund and private investors	PMU
	b) Number of potential counterparts identified	-	At least **3** (1 per country)	At least **6** (2 per country)	Project reports	Sufficient potential value chain partners, national financial institutions and beneficiaries can be	PMU
	c) Number of potential financiers identified for investment in the financing mechanism	-	At least **1**	At least **2**	Project reports		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	d) Percentage of women in stakeholder consultations, meetings and working groups organized by the project	-	50%358	50%358	Project reports	identified that are interested and meet requirements	PMU
	e) Percentage of technical options identified under Output 1.1 that are gender-sensitive/ respond to the needs and priorities of women	-	At least 25%	At least 25%	Project reports		PMU
	f) Eligibility criteria and other aspects of the Finance Facility include gender and youth considerations, including benefits to women farmers and female-led enterprises	-	Yes	Yes	Project reports		PMU
Component 2: Capacity development of national and local stakeholders to invest effectively in climate-resilient rice landscapes							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 2: Farmers (women and men), producer groups, counterparts and intermediaries have increased financial and technical capacities to invest effectively in climate resilience	a) No. of stakeholders (m/f) and institutions with increased capacities (following the trainings provided by the project or its partners, on financial and/or technical aspects)	-	At least **3,125** (50% women358, 25% youth) **5** financial institutions	At least **6,250** (50% women358, 25% youth), composed of: ? Financial institution staff trained directly by the project[6]: **250** (50% women) ? Farmers and other stakeholders trained on SRP Standard (through SRP co-financing and networks): **5,000** (50% women) ? Farmers and other stakeholders trained through other partners[7] (to be identified under Output 2.2): **1,000** (50% women) **6-9** financial institutions, private sector	Training reports, project progress reports	Project is able to establish partnerships in support of the goals of the project	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	b) No. of partnerships established and operational, including: - Financial institutions or other delivery partners for training to counterparts and intermediaries (under Output 2.1) - Partners for the provision of technical support and training to local stakeholders on climate-resilient practices, SRP, and organizational and financial skills (under Output 2.2)	-	At least 3 (1 per country)	At least 6 (2 per countries)	Signed LOIs / MOUs or other evidence of partnerships	Partner institutions with strong interest in the financing mechanisms can be identified.	PMU
	c) No. of gender guidelines prepared and disseminated to fund managers, grant entities, and revolving fund managers	-	1 per country	1 per country	Guideline documents tailored to each country		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	d) No. of gender sensitization training modules provided for local institutions, agricultural service providers, counterparts and intermediaries	-	1 per country	1 per country	Training reports		PMU
Component 3: Impact monitoring, governance, and learning and knowledge sharing							
Outcome 3: Program-wide impact monitoring, governance, adaptive learning and knowledge sharing mechanisms developed and implemented	a) Program M&E (including adaptation metrics and impact metrics) and key performance indicators in place, including gender-sensitive indicators	-	-	Program M&E and key performance indicators in place, including gender-sensitive indicators	Design documents, project reports, list of indicators	Investments in specific technical solutions will ultimately lead to more resilient rice landscapes and value chains	PMU
	b) Governance arrangements and safeguards for the financing mechanisms identified and established	-	-	Governance arrangements and safeguards in place	Design documents, project reports	-	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	c) Gender-sensitive KM and communications strategy developed and implemented, including: - No. of knowledge products (of which those that include gender-specific considerations, targeting women, highlighting gender lessons) - No. of events with project-specific advocacy (organized or not by the project)	-	Gender-sensitive KM and communications strategy developed	Gender-sensitive KM and communications strategy implemented (with no. of knowledge products and events tbd)	Project reports, KM and communications strategy, knowledge products	-	PMU
	d) M&E deliverables (reports, terminal evaluation, etc. as outlined in the ProDoc) are submitted on time. Data collected is sex- and age-disaggregated where relevant.	-	M&E deliverables submitted on time. Data collected is sex-and age disaggregated where relevant.	M&E deliverables submitted on time. Data collected is sex-and age-disaggregated where relevant.	Evidence of M&E documents and reports	-	PMU

[1] A lower percentage may apply in Bangladesh given the local context.

[2] Aged 15-30 years old.

[3] Assuming that at least 50% of the 6,000 farmers trained will apply improved practices after receiving the training, and that an average of 4 household members per farmer household will benefit from the improved practices, 3,000 x 4.

[4] May involve rice and other crops/commodities in rice landscapes.

[5] Envisioned to include (i) a de-risking facility or mechanism, (ii) national revolving fund facilities, and (iii) non-returnable grant facilities.

[6] As a result of Output 2.1. Estimated 30 staff per financial institution/private sector, total of 6-9 institutions (2-3 per country).

[7] On climate-resilient practices, SRP, and organizational and financial skills, as described under Output 2.2.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

GEF Secretariat comment at PIF stage	Responses
1) During project preparation and prior to CEO Approval, please strengthen articulation of the types of risk mitigation that will be considered in these country contexts (and those which are not or not such as insurance as discussed) and which financial mechanisms will be applied to ensure financial viability over time. In addition, the commercial gap that the blended finance facility is aiming to bridge should also be better defined during project design, the size of the gap or the risk factors that are creating the gap so that it is clear what mechanisms are needed and at what scale.	Additional consultations have been held during project preparation to determine potential types of risk mitigation, financial mechanisms, as well as financing gaps. This information has been included in *Section 1) Global environmental and/or adaptation problems* and *Section 4) Alternative scenario*. As part of the GEF project implementation, financing gaps will be determined in more detail as part of Component 1, as part of the design of the Finance Facility. Additionally, a demand assessment study will be conducted by IFC (with global FOLUR funding) to better understand the financing needs related to sustainable rice landscapes in the region
2) During project preparation and prior to CEO Approval it will be important to expand on the set of climate adaptation solutions and their correlation to climate change impacts that will be financed through be the facility created with support of this project.	Additional consultations have been held during project preparation and additional adaptation solutions identified. These have been added in *Section 1.a Project description*. Please refer to sub-section *Adaptation options in rice landscapes* and Table 1, in particular.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

The Consultants inputs cover the costs associated with hiring PPG consultants. Specifically, this included hiring of a GEF Project Design Expert (International Consultant) as well as one Local PPG Coordinator (National Consultant) per country (3 positions ? Bangladesh, Cambodia, Viet Nam), as indicated in the PPG document. Contracts line covers for the costs associated with the Capacity Assessment of the identified Executing Partner. Other costs included meeting and workshop expenses, travel and general operating expenses associated with the PPG activities.

PPG Grant Approved at PIF: **USD 50,000** (USD 36,957 from LDCF, USD 13,043 from SCCF)						
Project Preparation Activities Implemented	LDCF/SCCF Amount (USD)					
	Budgeted Amount		Amount Spent to date (as of 16 Nov 2022)		Amount Committed (as of 16 Nov 2022)	
	LDCF	SCCF	LDCF	SCCF	LDCF	SCCF
Consultants	26,857	10,343	-	3,840	27,657	6,503
Contracts	4,600	-	-	-	3,800	-
Meetings and workshops	4,000	2,000	1,954	1,028	2,046	972
Travel	1,000	500	-	-	1,000	500
General Operating Expenses	500	200	46	-	454	200
Total	**36,957**	**13,043**	**2,000**	**4,868**	**34,957**	**8,175**

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Location	Estimated Coordinates ? Lat/Long[1]
Bangladesh	N 24? 0' 0" E 90? 0' 0"
Cambodia	N 13? 0' 0" E 105? 0' 0"
Viet Nam	N 16? 10' 0" E 107? 50' 0"

Project maps[1]

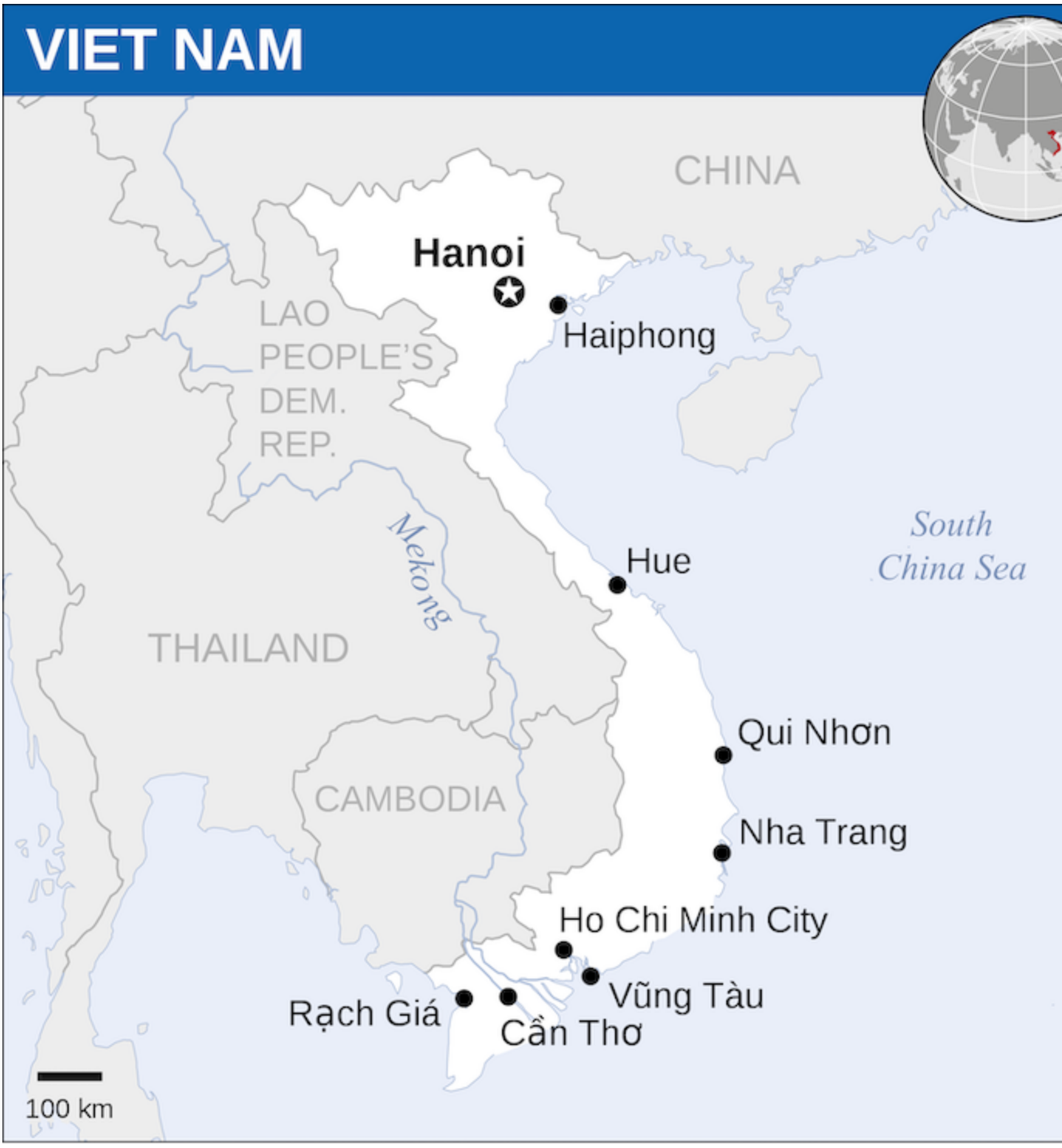
Bangladesh

Map No. 3711 Rev. 2 UNITED NATIONS
January 2004

Department of Peacekeeping Operations
Cartographic Section

Cambodia

Viet Nam



[1] Source: https://www.un.org/, https://www.unocha.org/. Note: The boundaries and names shown and the designations used in these maps do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

[1] Coordinates are from http://www.geonames.org/.

ANNEX E: Project Budget Table

Please attach a project budget table.

FAO Cost Categories	Component 1 - Design of financing mechanism					Component 2 - Capacity development			Component 3 - Impact monitoring, governance, KM (excl. Project M&E)			Total Components	M&E (Output 3.3)	PMC	Operational Partner budget (SRP)
	1.1	1.2	1.3	1.4	Total	2.1	2.2	Total	3.1	3.2	Total				
5011 Salaries professionals															
					0			*0*			*0*	0			0
5011 Sub-total salaries	**0**	**0**	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	***0***	0	**0**	**0**	**0**
5013 Consultants															
1) International consultants															
1. Regional Technical Coordinator & M&E Specialist	19,800		45,000		*64,800*	66,000	12,600	*78,600*	30,000		*30,000*	173,400	15,000	12,000	200,400
2. International Consultant(s) for GCF-IFC proposal				100,000	*100,000*			*0*			*0*	100,000			100,000
3. Sustainable Finance			6,000	15,000	*21,000*			*0*			*0*	21,000			21,000
4. Technical Expert(s) on Adaptation in Rice Landscapes	7,200				*7,200*			*0*	9,000		*9,000*	16,200			16,200
					0			*0*			*0*	0			0
Sub-total international	***27,000***	***0***	***51,000***	***115,000***	***193,000***	***66,000***	***12,600***	***78,600***	***39,000***	***0***	***39,000***	***310,600***	***15,000***	***12,000***	***337,600***
2) National consultants															
1. Admin and Finance Support - Regional					*0*			*0*			*0*	0		30,000	30,000
2. National Financing Specialist/Coordinator -	9,000	18,000	15,000	12,000	*54,000*	12,000	1,500	*13,500*	3,000		*3,000*	70,500			70,500
3. National Financing Specialist/Coordinator - Cambodia (hired in coordination with SRP National	9,000	18,000	15,000	12,000	*54,000*	12,000	1,500	*13,500*	3,000		*3,000*	70,500			70,500
4. National Financing Specialist/Coordinator - Viet	9,000	18,000	15,000	12,000	*54,000*	12,000	1,500	*13,500*	3,000		*3,000*	70,500			70,500
5. Compliance, legal and regulatory analysis (national		27,000			*27,000*			*0*			*0*	27,000			27,000
					0			*0*			*0*	0			0
Sub-total national	***27,000***	***81,000***	***45,000***	***36,000***	***189,000***	***36,000***	***4,500***	***40,500***	***9,000***	***0***	***9,000***	***238,500***	***0***	***30,000***	***268,500***
5013 Sub-total consultants	**54,000**	**81,000**	**96,000**	**151,000**	***382,000***	**102,000**	**17,100**	***119,100***	**48,000**	**0**	***48,000***	**549,100**	***15,000***	***42,000***	**606,100**
5650 Contracts															
1) Contracts managed by															
1. Spot checks (FAO)					*0*			*0*			*0*	0		21,000	
2. Audits (FAO)					*0*			*0*			*0*	0		22,500	
3. Terminal Evaluation (FAO)					*0*			*0*			*0*	0	50,000		
4. Terminal report (FAO)					*0*			*0*			*0*	0	6,550		
Sub-total contracts managed	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***56,550***	***43,500***	***0***
2) LOAs/contracts by SRP															
1. Commercial contract with Financial Service Provider		45,000			*45,000*			*0*	6,000		*6,000*	51,000			51,000
2. Commercial contract Program M&E and safeguards					*0*			*0*	42,000		*42,000*	42,000			42,000
3. Commercial contract KM & knowledge products					*0*			*0*		18,000	*18,000*	18,000			18,000
1. Subcontract with Local Partner (Bangladesh) (Output					*0*		20,900	*20,900*			*0*	20,900			20,900
2. Subcontract with Local Partner (Cambodia) (Output					*0*		20,900	*20,900*			*0*	20,900			20,900
3. Subcontract with Local Partner (Viet Nam) (Output					*0*		20,900	*20,900*			*0*	20,900			20,900
4. Subcontract with Government for meetings/dialogues (Bangladesh) (contract	7,500	2,000	5,000		*14,500*			*0*		3,500	*3,500*	18,000			
5. Subcontract with Government for meetings/dialogues (Cambodia) (contract through	7,500	2,000	5,000		*14,500*			*0*		3,500	*3,500*	18,000			
6. Subcontract with Government for meetings/dialogues (Viet Nam) (contract through SRP or FAO	7,500	2,000	5,000		*14,500*			*0*		3,500	*3,500*	18,000			
Sub-total Subcontracts by	***22,500***	***51,000***	***15,000***	***0***	***88,500***	***0***	***62,700***	***62,700***	***48,000***	***28,500***	***76,500***	***227,700***	***0***	***0***	***173,700***
5650 Sub-total Contracts	**22,500**	**51,000**	**15,000**	**0**	**88,500**	**0**	**62,700**	**62,700**	**48,000**	**28,500**	**76,500**	**227,700**	**56,550**	**43,500**	**173,700**
5021 Travel															
1. International travel															
1. Travel costs	6,400	6,400	6,400		*19,200*	6,400		*6,400*		8,349	*8,349*	33,949			33,949
					0			*0*			*0*	0			0
2. National travel															
					0			*0*			*0*	0			0
					0			*0*			*0*	0			0
5021 Sub-total travel	**6,400**	**6,400**	**6,400**	**0**	***19,200***	**6,400**	**0**	***6,400***	**0**	**8,349**	**8,349**	**33,949**	**0**	**0**	**33,949**
5023 Training															
1. Trainings/Workshops															
					0			*0*			*0*	0			0
					0			*0*			*0*	0			0
2. Meetings															
1. Meetings for structuring of financial mechanism (regional, national)				12,000	*12,000*			*0*			*0*	12,000			12,000
2. Trainings for counterparts / intermediaries					*0*	15,000		*15,000*			*0*	15,000			15,000
					0			*0*			*0*	0			0
5023 Sub-total	**0**	**0**	**0**	**12,000**	***12,000***	**15,000**	**0**	***15,000***	**0**	**0**	***0***	**27,000**	**0**	**0**	**27,000**
5024 Expendable															
					0			*0*			*0*	0			0
					0			*0*			*0*	0			0
5024 Sub-total expendable	**0**	**0**	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	**0**	**0**
6100 Non-expendable															
1. Computers/internet for PMU and national consultants					*0*			*0*			*0*	0		5,429	5,429
					0			*0*			*0*	0			0
6100 Sub-total non-	**0**	**0**	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	**5,429**	**5,429**
5028 GOE budget															
					0			*0*			*0*	0			
6300 Sub-total GOE budget	**0**	**0**	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	***0***	**0**	**0**	**0**	**0**
TOTAL	**82,900**	**138,400**	**117,400**	**163,000**	**501,700**	**123,400**	**79,800**	**203,200**	**96,000**	**36,849**	**132,849**	**837,749**	**71,550**	**90,929**	**846,178**

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

n/a

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

n/a

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

n/a