



**International
Finance Corporation**
World Bank Group

Pilot Program for Climate Resilience (PPCR) –

Private Sector Approach in Promoting and Financing Climate Resilient Agribusiness

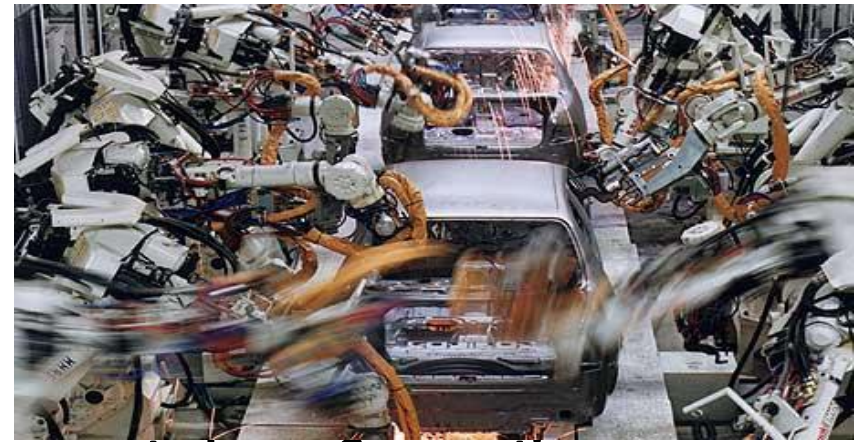


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Private sector: roles in adaptation



From small farmers



to Large Corporation

Roles:

- Entities needing adaptation solutions
- Providers of solutions for adaptation
- Providers of financing for adaptation

Gaps and barriers, e.g.:

- Information
- Time horizons
- Internal resources
- Technological solutions
- Financing
- Policy and regulation

Identifying and addressing needs and opportunities

ENERGY, HYDROPOWER



Increased flows, flooding
Additional turbines and/or spillway

TRANSPORTATION



Sea level rise, flooding
Change level of roads, materials

WATER



Increased precipitation variability
Water storage systems

INFORMATION TECHNOLOGY



Lack of info (for e.g. agribusiness)
Weather and climate services

CONSTRUCTION / R. ESTATE



Increased frequency of heatwaves
Change in design, insulation

FOOD AND BEVERAGES



Diminishing water resources
Water efficient technologies

AGRICULTURE, FORESTRY



Increase in drought days
Resilient hybrids, water mangm.

ANIMAL PRODUCTION



Stress due to increased temp.
Breed selection, building standard

MINING



Increased precipitation intensity
Design of mine, tailings

COMMERCIAL BANKING



Inadequate SME access to finance
Instruments to support adaptation

INSURANCE



Increased impacts of extremes
Climate indexed instr. (eg. crops)

IFC 2011

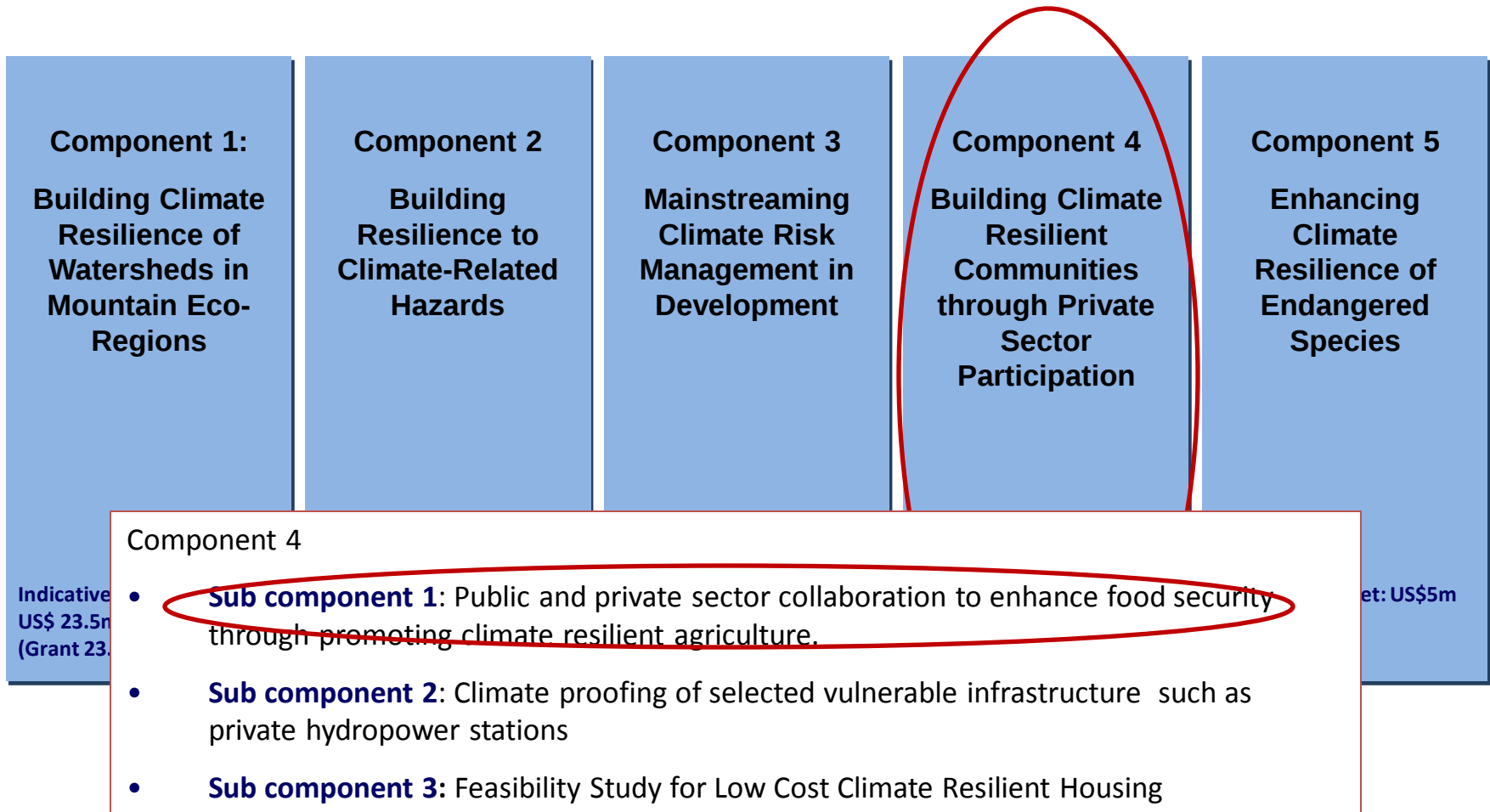
Financing modalities and links to climate finance

- Grants: technical assistance, audits, awareness raising, information, policy dialogue
- Loans: investments in tech/equipment/infrastructure to boost climate resilience
- Use of financial intermediaries to reach smaller businesses
- Concessional/non-concessional depending on circumstances

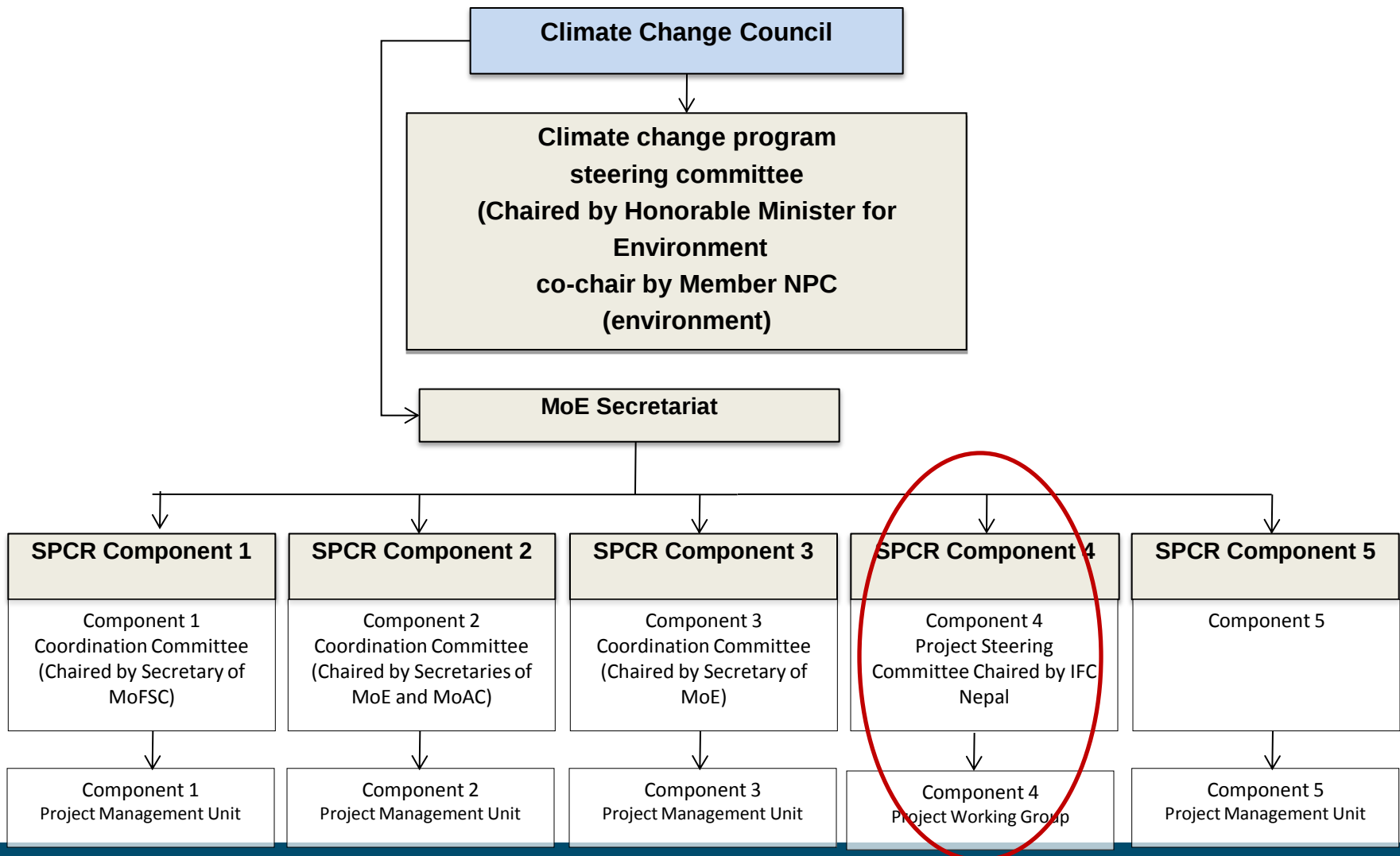
Issues for Discussion

- How can lessons from other countries be useful for South Asia?
- How can climate finance be best used to leverage investment in climate resilience?
- How can the PPCR help to overcome barriers to private sector engagement?

Nepal PPCR Components



Institutional Setup for Implementation



The Program



Nepal: Agricultural Context

- The agricultural sector employs over two-thirds of the labor force and contributes to roughly one-third of the gross domestic product
- Fragmented supply chain with average land holding of 0.5 ha and low farm level productivity
- Feminization of agriculture
- 20 million farmers, of whom 96% are smallholders, are likely to face increased climatic variability

Anticipated Changes to Climate in the Terai region :

- Increase in temperature
- Intensive rainfall events, increases in frequency and intensity of floods, and changes in monsoon patterns

Anticipated Impacts of Climate Change on production of the target crops (rice, maize, sugar):

- Decrease in productivity
- Increased water requirements
- Decrease in soil fertility
- Increase in pests

Market Barriers

Access to Technology

- *Low levels of awareness and adoption of climate-resilient seed varieties*
- *Lack of reliable, and affordable access to water resources, and poor water management practices*
- *Inadequate input availability and knowledge of agriculture practices, especially related to climate change*
- *Absence of robust weather information delivery and early warning systems*

Access to Finance

- Low availability of agricultural credit
- High transaction costs to reach farming households
- Limited awareness among farmers about financial products

Increase Productivity by Offsetting Climate Change Risks of 15,000 farmers in Rice, Maize and Sugarcane

The Program

Improved climate smart agriculture and water management practices

Access to irrigation technologies and practices

ICT-based early warning system to disseminate weather-related and agronomics information

Access to Finance for usage by farmers and other agri supply chain members

Input Suppliers

Farmers

Lead Farmers/Cooperatives

Processors

Market

Advisory services on improvement of input quality (seed, irrigation/mechanization equipment, finance, early warning system)

Capacity building/ Finance for farmers on adoption of improved inputs, climate adaptive agriculture and water management practices and technologies to increase farm

Demonstration sites on climate smart agriculture models

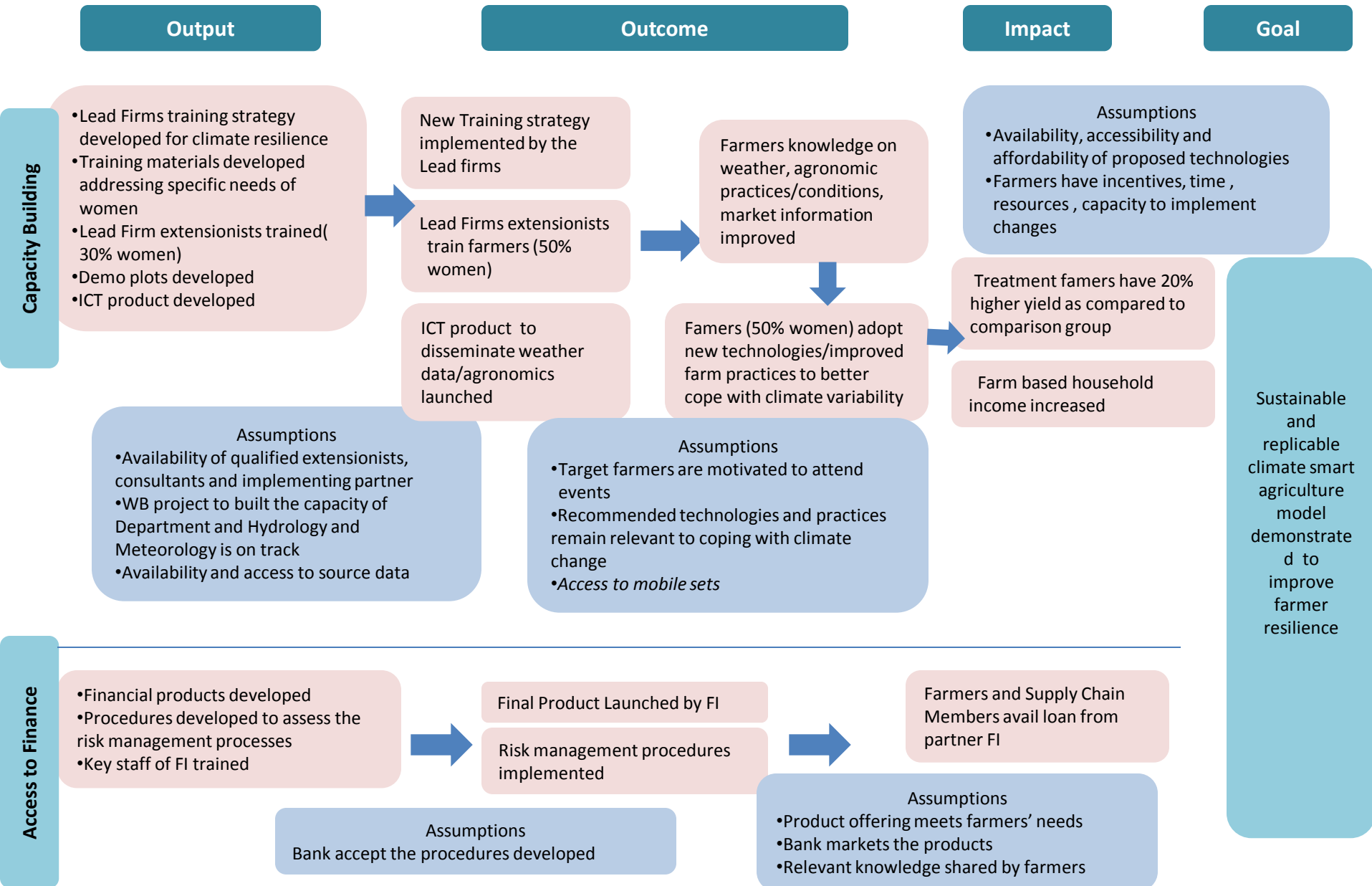
Design and dissemination of training tools.

Demo Plots

Training of LF extensionists

IFC Entry Point

Results Framework



Stakeholders: Farmers (50% women), Lead Firms, MOE, Donor, Input Suppliers, MOA, DOI, Technical Partners, Banks, Civil Society, DHM, Mobile Service Providers, IFC, Input providers

Global Case studies in Agribusiness: promoting water efficiency

Project: equipment upgrade at an oilseed processor in Romania

Climate vulnerability: projected increase in seasonal water scarcity

Climate resilience measures: finance for water-efficient processing equipment that reduces water use by 50%

Financing: grant finance for water use audit; EUR 110 million non-concessional loan



Agriculture: improved irrigation

Project: drought-proofing a major sugar beet producer in Russia

Climate vulnerability: severe impacts of recent heat-waves & droughts; projected further increase in seasonal water scarcity

Climate resilience measures: investment in installation of irrigation equipment

Grant funded audit; non-concessional loan of USD 40 million



Agriculture: drought resistant seeds

Project: non GM drought-resistant, salt resistant seeds for specific emerging market locations in Asian countries

Climate vulnerability: increasing variability in precipitation and droughts, heat waves, changes in salinity

Climate resilience measures: investment in development of more resilient varieties, commercialization of seeds in emerging markets

Financing: IFC provided USD 12 million equity investment



Thank You