Building Climate Resilience and Reintegrating Economically Displaced Workers through Climate Smart Agriculture in the Terai Flood Plain, Nepal

WHAT IS CLIMATE SMART AGRICULTURE (CSA)?

CSA is being promoted for the adaptation and mitigation of climate change and variability in many places. CSA aims to simultaneously achieve three outcomes: improve farm productivity; increase resilience to climate change; and decrease greenhouse gas emissions wherever possible.

CSA interventions are context-specific. A pre-set, fixed package of CSA interventions does not exist. Interventions need to be location-specific and to reflect climate risks, agriculture production systems, and other bio-physical/socio-economic conditions. In Nepal, where farming systems and farm typology are very diverse, and involvement of women in agriculture is very high, location-specific climate smart interventions including gender and social inclusion are essential.

Examples of CSA technologies are introduction of new crops, seeds, varieties, seedlings, home gardens; mixed farming (legume integration); community seed banks; information and communications technology-based agro-advisory; drip irrigation; solar-based irrigation; agriculture insurance, etc.

OBJECTIVES

Therefore, this project aims to support widespread adoption of CSA by

• Improving emergency management in the agriculture sector to protect lives and livelihoods
• Strengthening resilient agriculture planning and implementation
• Building and financing climate smart agriculture businesses for job creation and long-term resilient green growth.

FACTSHEET

• Terai accounts for about 56% of Nepal’s arable land
• Agriculture suffered a loss of Rs. 2.36 billion due to floods, landslides, and drought in the year 2015. The loss was more than 10% of the total budget of the Ministry of Agriculture and Livestock Development for that year
• Nine districts in Nepal fall into very high-risk categories in climate change, six of which are from Madesh Province
• Extreme climate events can erode about 1.5% to 2% of GDP per year in the water management and agricultural sectors, and higher (about 5%) in extreme years

ALIGNMENT WITH GOVERNMENT PRIORITIES

In line with the Government of Nepal’s 15th periodic plan, the project contributes to increase the economic value of the agricultural sector as a result of increased production, investments, and rural infrastructure.

In line with the Agriculture Development Strategy (2015-2035), the project intends to boost agricultural land production by enhancing farmers’ and extension personnel’s skills in climate-smart agriculture methods.

The project contributes to the achievement of Nepal’s second Nationally Determined Contributions (NDCs), which aims to develop 200 climate-smart villages and 500 climate-smart farms by 2030 and attain 3.95 percent soil organic matter content on agricultural land.

PROJECT

The project aims to support widespread adoption of climate smart agriculture (CSA) to reduce vulnerability and improve food and job security, especially for women, youth and returned migrant workers.

RATIONALE

Nepal’s Terai flood plain is hard hit by recurrent climate emergencies and a humanitarian crisis induced by returning economically displaced migrant workers due to COVID-19. To address the double crisis, this project aims to significantly increase the resilience of farmers and migrant workers by identifying, demonstrating, incubating and investing in sustainable, climate smart agriculture practices.

Total Budget: $5.99 million, funded by KOICA and co-financed by GGGI and GNI

Project areas: 10 municipalities from Dhanusha and Mahottari districts

Duration: June 2022 – December 2025 (43 months)

Project Beneficiaries: Directly benefit 7,800 people including 60 local government officials, 5,300 farmers, 1,100 public labors and 1,340 new jobs for women, youth and migrant workers. Indirect beneficiaries will be 430,638 farming family members in the participating municipalities, including 6,432 family members of selected agribusinesses.

1 Central Bureau of Statistics, 2013
2 Status of crops and weather report, Agriculture Extension Directorates, Lalitpur, 2015
3 Vulnerability and Risk Assessment Report, Ministry of Environment and Forest, 2021
4 Global Climate Adaptation Partnership, 2014
## THEORY OF CHANGE

### IMPACT

Widespread adoption of climate smart agriculture technologies and approaches in 10 local governments reduces vulnerability and improves economic security for 5,300 farmers and workers, creates 1,100 public works and 1,340 new jobs for returned migrant workers and youth, and unlocks green investment of USD 20M.

### OUTCOMES

- 10 local governments are prepared to respond to climate emergencies, particularly flood and drought, protecting the livelihoods of community members and creating 1,100 public labors for women, returned migrant workers and youth
- Local farming communities adopt market-oriented climate smart agriculture, spurring investment of USD 1.56 million into 112 agribusinesses, creating 1,340 new jobs for women, returned migrant workers and youth and leveraging an additional USD 20 million in scale-up financing

### OUTPUT

<table>
<thead>
<tr>
<th>Capacity and systems of local governments to manage agricultural climate risk improved</th>
<th>Local government plans, adopts, and implements climate smart agriculture</th>
<th>Enabling a conductive business and knowledge environment for climate smart agriculture created</th>
<th>Investment in climate smart agriculture increased for job creation and competitiveness</th>
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<tr>
<td>Capacity building in DRM data and information</td>
<td>Establish municipal system for information sharing and management (early warning system and weather information)</td>
<td>Vulnerability and risk assessment in agriculture</td>
<td>Climate smart agriculture plans</td>
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<tr>
<td>Business management training to farming groups</td>
<td>Technical training on CSA to farming groups</td>
<td>Establish model CSA farms</td>
<td>Set up and operationalize Terai Agribusiness and enterprise Challenge Fund</td>
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<td>Disburse funds and technical support to the winning agribusiness</td>
<td>Mobilize climate finance to scale up and replication</td>
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### ACTIVITIES

- Local emergency management centers lack capacity for agriculture sector risk response
- Local governments are not informed of climate risks, and are not planning or implementing climate resilience in the agriculture sector
- Local farmers groups lack the know-how and support to develop commercially viable climate smart agribusiness
- Agribusinesses struggle to obtain seed and working capital, leading to depressed growth

### CHALLENGES

### PARTNERS

**The Government of Nepal (GON)**

Ministry of Land Management, Agriculture and Cooperative, Madhesh Province is focal ministry of agricultural development, promotion, technology enhancement, farmer support scheme, livestock support, land management and agri cooperative related policy planning and budgeting ministry in Madhesh Province.

**KOICA**

KOICA, Korea International Cooperation Agency, as a leading development cooperation agency of Korea, contributes to the common prosperity and the promotion of world peace through inclusive, mutual development cooperation, and leaving no one behind.

**About GGGI**

Global Green Growth Institute (GGGI), headquartered in Seoul, Republic of Korea, is a treaty based inter-governmental organization dedicated to promoting and encourage strong, inclusive, and sustainable economic growth in emerging and developing economies.

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