

# Koronivia Joint Workshop on Agriculture

## Session on: 'Socioeconomic and food security dimensions of climate change in the agricultural sector'



**GEF Support for Socio-economic and Food Security  
Dimensions of Climate Change**

**2 December 2020**

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# GEF Support for Food Security

## Global Programs (GEF Trust Fund)

- ✓ Food Systems, Land Use and Restoration (FOLUR)

## Regional Programs (GEF Trust Fund)

- ✓ Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa

## Regional and National Adaptation Projects and Programs funded by LDCF, SCCF

Least Developed Countries Fund (LDCF) supporting climate resilience and adaptation in 47 LDCs

Special Climate Change Fund for all developing countries



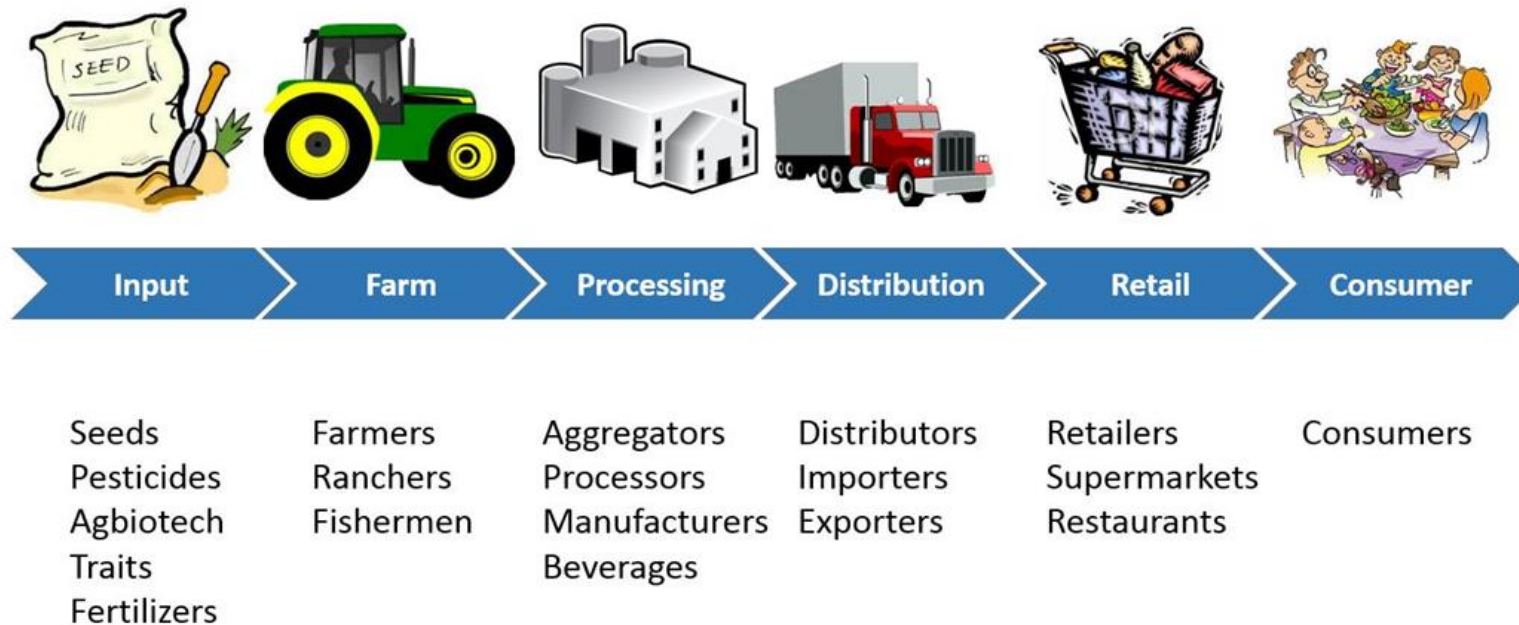
**Systems transformation at scale towards sustainability**

**RESILIENCE**  
**Health**  
**Livelihoods**  
**Nutrition**



# Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa

- GEF-6 program under implementation in 12 Sub-Saharan African countries
- \$116 M in GEF grant with over \$800 M in co-finance
- 10-20 MtCO<sub>2</sub>e GHG emissions avoided or reduced
- Considers multiple dimensions of systemic resilience across food value chain



# GEF Climate Change Adaptation Portfolio: LDCF and SCCF

- Nearly \$2 billion in approved projects and programs, with over **22 million** beneficiaries (closed and active portfolio)
- 30% of LDCF projects and 25% of SCCF projects are supporting adaptation in the **agriculture** sector
- Together, **over 9 million ha** of land are better managed to withstand the effects of climate change



# What kind of adaptation support in agriculture?

- **Agro-hydromet** and **seasonal climate information** to help farmers with cropping decisions and provide alerts on likelihood of pests etc.
- **Livelihood diversification**, expanding beyond a single crop to also look at poultry farming, beekeeping, value-added goods, fish-farm-fruit systems, etc.
- Support for **climate-resilient species**.
- **Water, energy** and **soil** conserving methods and technologies.
- Strong focus on **empowering women** and **youth**.



# What kind of adaptation support in agriculture?

- Reduction of **post-harvest waste**, improved rural roads for market access
- Increasing focus on **private sector engagement** (e.g., private sector value chain resilience; crop insurance).
- The LDCF and SCCF portfolios have both been independently evaluated to demonstrate a **strong focus on risk and innovation**.



## What are some of the socio-economic co-benefits of the adaptation activities?

- Higher and more stable incomes in the face of climate change and variability; diversified livelihoods generate year-round incomes.
- Better health and nutrition.
- Higher empowerment of women, e.g., through agribusiness and financial literacy trainings.
- Building on traditional knowledge.
- Improved and closer water sources free up time for women.

## Example from the LDCF portfolio:

### Reducing Vulnerability and Increasing Adaptive Capacity to Respond to Impacts of Climate Change and Variability for Sustainable Livelihoods in Agriculture Sector in Nepal

- 120 farmer field schools operationalized. Provided training and refresher training to 127 field school facilitators, now working to extend training on climate change adaptation to farmers.
- Through the 120 farmer field schools, 3,484 farmers, **74 percent of which are female**, have already been educated about climate hazards, exposure of farmers and sensitivity of agriculture.
- Introduced conservation agriculture technologies for minimum till plantation of crops, along with stress tolerant plant varieties and animal breeds in areas with high risks of climate hazards. (Target was to introduce ten varieties, but it has already identified, introduced and validated 44 varieties of rice, wheat, potato, mustard, lentil, ginger, turmeric and maize.)
- Community-based adaptation plans have been prepared in all 120 groups and were endorsed by district level technical teams and stakeholder consultations.
- Continuous technical coordination and support by the Nepal Agriculture Research Council



# Climate change and agriculture: some global challenges

- Need to increase productivity, decrease food waste, and reduce GHG emissions in the food value chain → *Transformative technical and policy options and investments are urgently needed*
- *Water management becomes even more critical in world of changing climate.* Aquifers are being depleted and water tables lowering due to unsustainable extraction rates; glacial retreat threatens freshwater; and many freshwater sources have been polluted.
- A lot of energy is needed across the food life cycle, rendering food vulnerable to price shocks in the energy market → *We need rapid and widespread deployment of renewable energy, and greater energy efficiency across the value chain.*
- *We need technological advances in ways to ‘climate proof’ agricultural production systems.*
- *Need strong private sector engagement* which can help in development and spread of innovative solutions. Especially in LDCs, private sector capacity can be low, and it is harder to attract them in adaptation initiatives than mitigation ones. We need to start addressing this.

## In conclusion:

- Agriculture is likely to continue to hold a large share of the LDCF and SCCF portfolio, and to continue to generate socio-economic benefits in terms of income, food security, gender equality, and health;
- Over time, the agriculture portion of the LDCF/SCCF portfolio is shifting from an almost exclusive focus on crop production to food value chains, looking at crop storage and link-up with markets, as well as private sector outlets for sustainably produced commodities. So, additional and more diverse potential beneficiaries.
- Solutions that are currently being supported in conservation agriculture will continue to be important, to avoid land degradation.
- The current COVID situation demonstrates more clearly than ever that solutions that don't just target specific issues, but enable systemic and community robustness in a general sense are really needed. It's critical to ensure that we deliver integrated solutions for resilience.
- The LDCF and SCCF portfolios have a number of socio-economic indicators built in to the results framework, such as strengthening of livelihoods and sources of income.
- There is increased focus in GEF Adaptation portfolio on engaging the private sector.