CLIMATE TECHNOLOGY CENTRE & NETWORK

CTCN

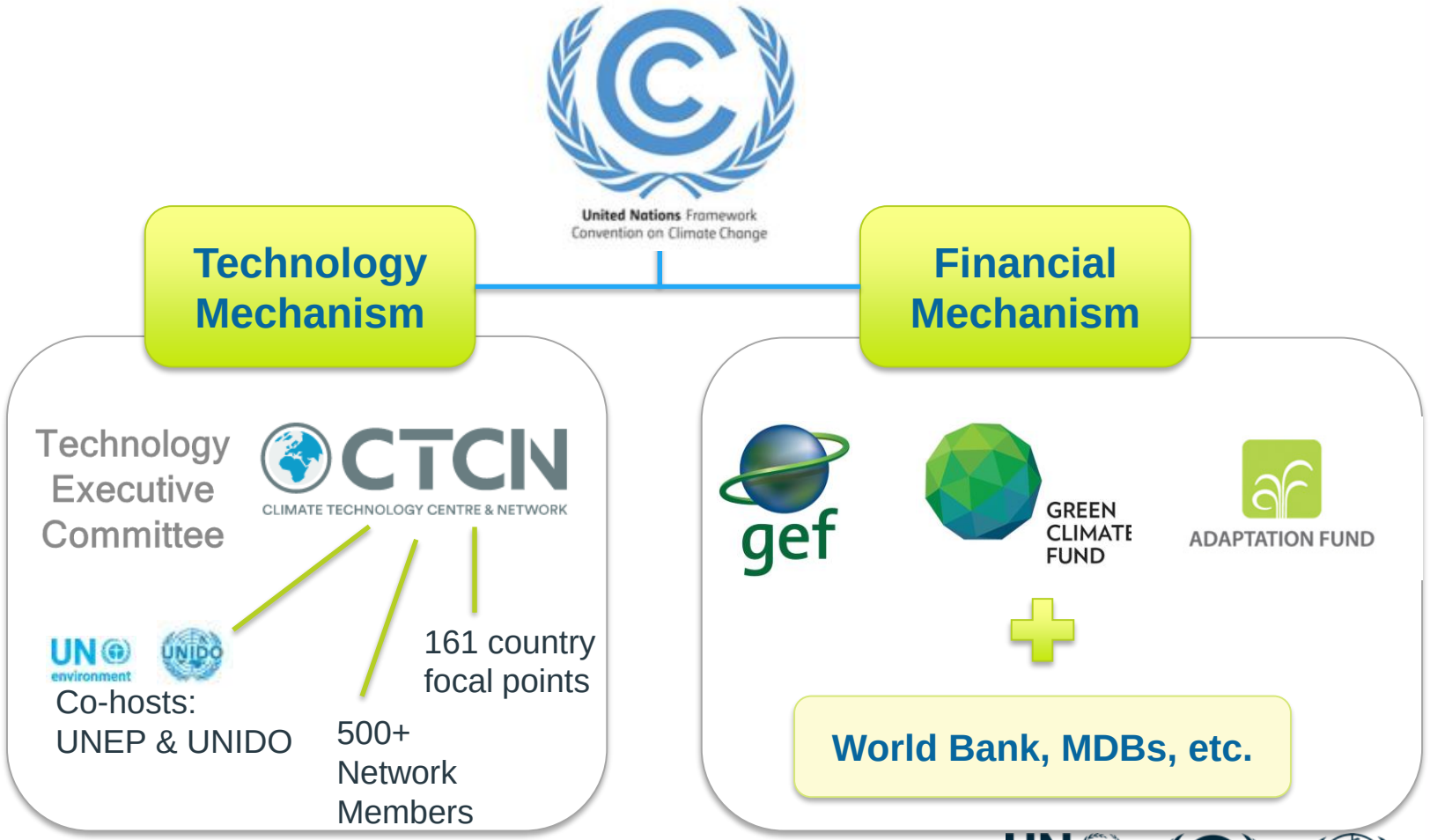
SUBSIDIARY BODY EVENTS - 2021

Koronivia Intersessional Workshop part 1

Maia Tskhvaradze
CTCN – Advisory Board Member

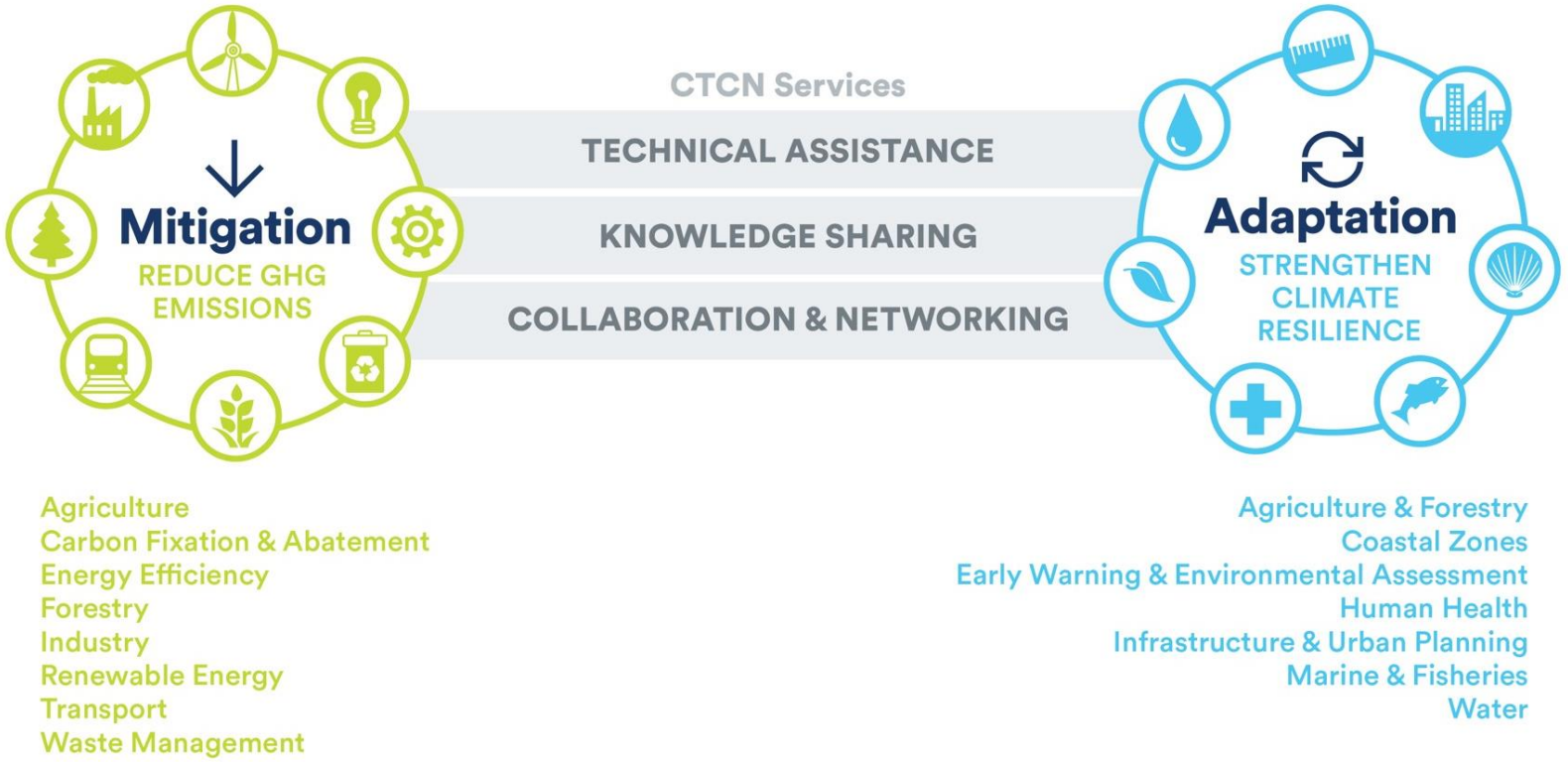
Climate Technology Centre and Network

- Operational arm of the UNFCCC Technology Mechanism.
- Mandated to support the development, transfer, deployment and dissemination of climate technologies.
- Work with Financial Mechanism & via 500+ expert implementing partners (= Network)
- Co-hosts: UNEP & UNIDO

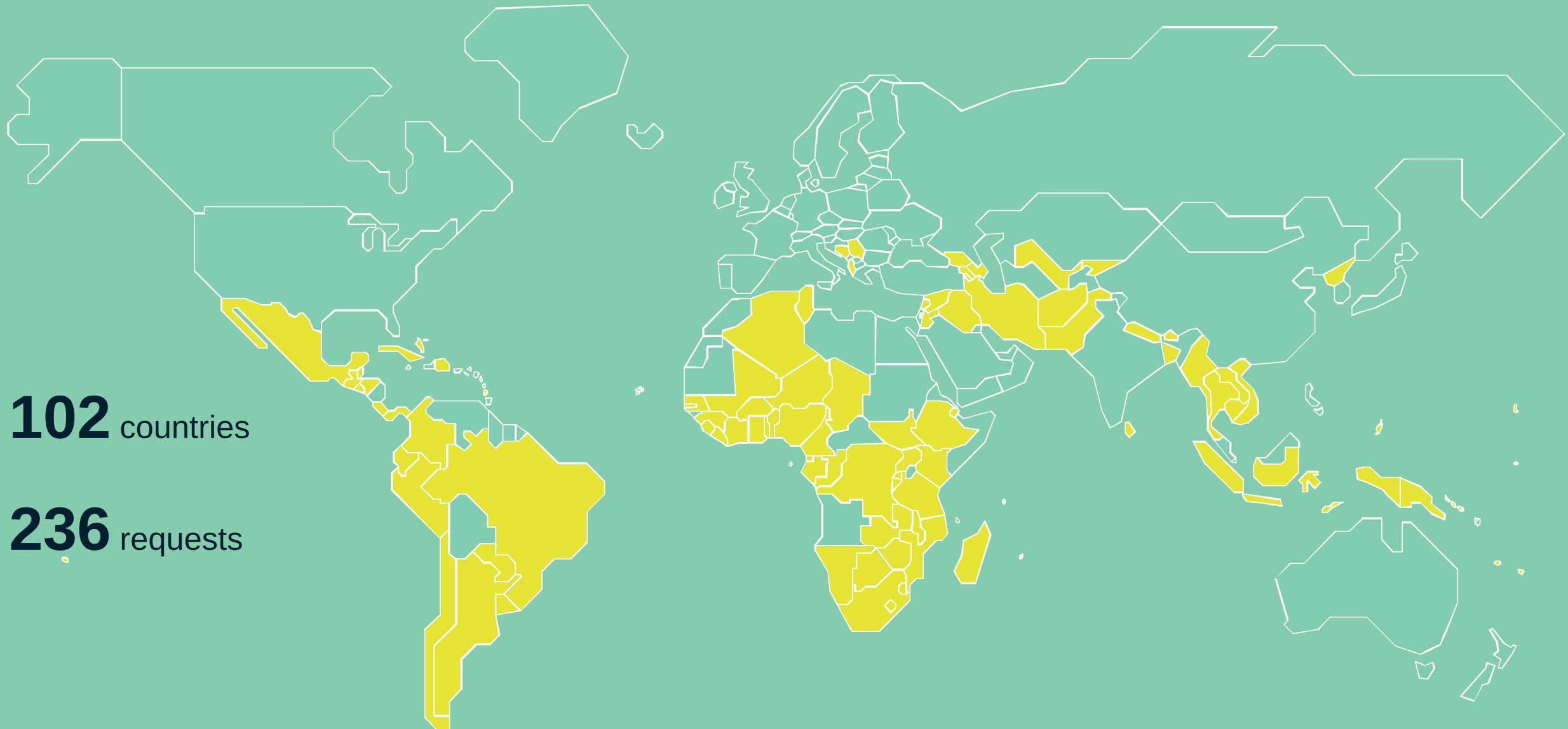


CTCN Services

- CTCN provides technical assistance to developing countries on their request.
- These request are implemented through network members of the CTCN, selected through a competitive bidding process



Countries Receiving Technical Assistance

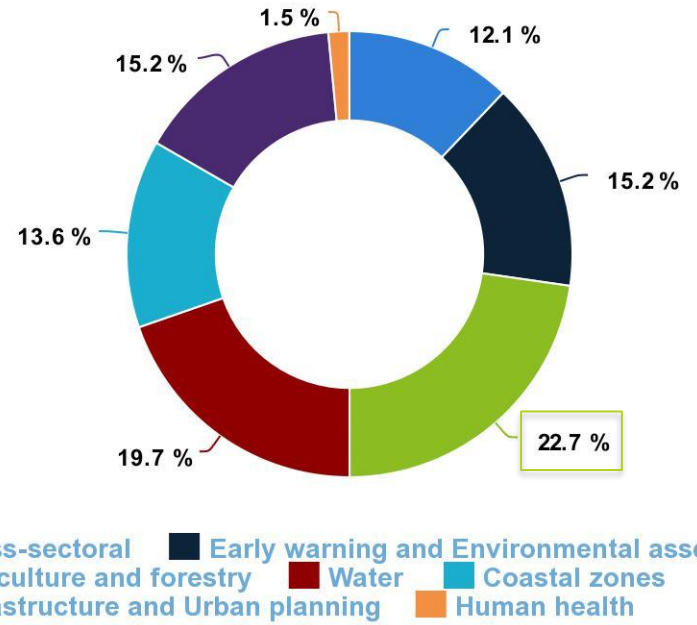


102 countries

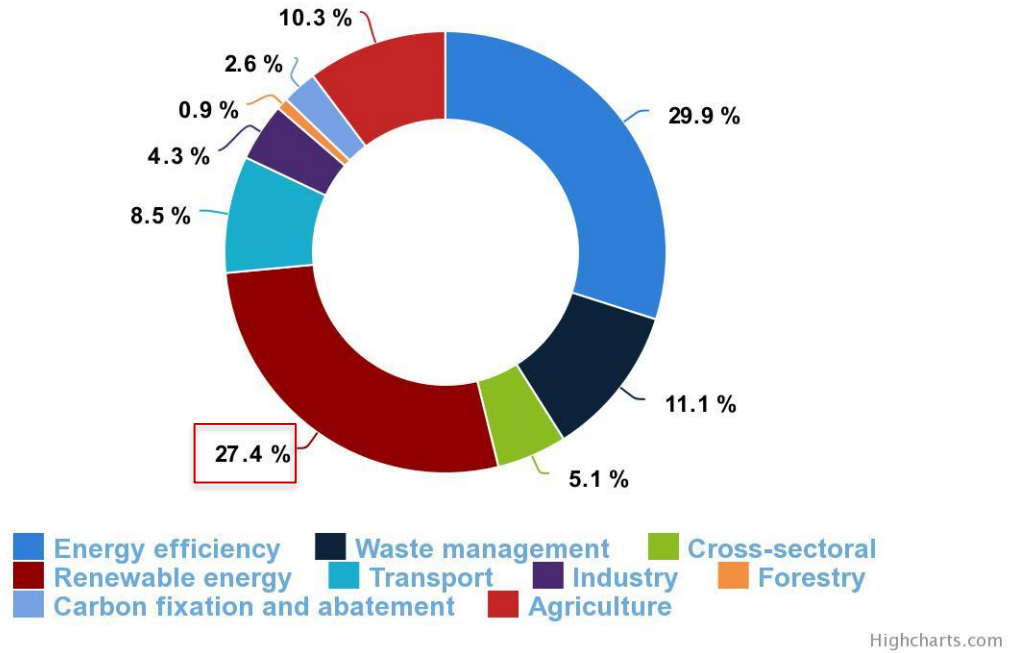
236 requests

Technical Assistances related to Agriculture

Distribution of requests related to adaptation, by sector



Distribution of requests related to mitigation, by sector



Technical Assistance – Case Studies

Country Thailand	**Status** Completed in 2018
Title Technology development for climate resilience and efficient use of resources in the agricultural sector in Thailand	
Objectives • Enhance capacities of Thai stakeholders in the knowledge and application of agricultural technologies (Precision farming, GIS, Sensors, ...) to optimize resource management and crop productivity • Conduct a capacity building workshop on improving resource use efficiency through technological interventions • Design a pilot project to demonstrate application of agricultural technologies for resource management	
Impact • 56 participants from different research-related institutions were trained on agricultural technologies for resource management and crop productivity, including 20 female researchers • Dissemination of knowledge and implementation of precision farming techniques to reduce fuel and energy use and to increase agricultural resilience of potentially up to 125,000 farmers in Thailand	

Technical Assistance – Case Studies

Country Georgia	**Status** Completed in 2018
Title Assessment of Suitable Flood Mitigation Measures in Tbilisi	
Objectives • Determine appropriate actions to reduce the flood-related vulnerability of Dukniskhevi River in Tbilisi • Rainfall runoff and hydrodynamic modelling as well as flood mapping • Development of flood hazard and risk maps • Recommendations and training on hydro-meteorological monitoring and flood-risk mitigation	
Impact • Improved contingency planning for extreme flood events based on actual flood risk maps • Proper spatial and land development planning based on flooding maps • Reduction of flood risk vulnerability through implementation of adaptation measures • Gain of autonomy in terms of conducting flood modelling and evaluation	

Technical Assistance – Case Studies

Country Ecuador	**Status** Completed in 2020
Title Design and scale-up of climate resilient waste management and energy capture technologies in small and medium livestock farms	
Objectives • Analysis and development of a detailed management and financing model for small and medium livestock farms for the usage of biodigesters (biomass to energy) • Evaluation of the baseline and potential for biodigesters in Ecuador • Training of technicians and users in operating, maintaining and using biodigesters • Strategy development for scaling up the usage of biodigesters	
Impact • Demonstration of economic and technical viability of biodigesters for small and medium livestock farms • Scale up of biodigester technology to a national level • Reduction of agricultural waste, environmental degradation and reliance on fossil fuels	

Technical Assistance – Case Studies

Country	Status
Kenya	Completed in 2020

Title

Formulation of Kenya’s ten-year national agroforestry strategy (2020 – 2030)

Objectives

- Ensure accelerated adoption of agroforestry as a key technique for enhancing the country’s resilience and mitigating climate change
- To contribute towards the achievement of the implementation of Kenya's strategy on achieving and maintaining a 10% tree cover at the farm-forestry level

Impact

- A potential contribution to 50% of the countries goal of abatement of 4.2MtCO_2e by 2030
- Boosted efforts towards food security by promoting agroforestry products as dietary substitutes for nutritional benefit
- On the long term these TA's is expected to help provide cleaner air and water, richer soil biodiversity, water retention, reduced soil erosion and more stable food supplies

Technical Assistance – Case Studies

Country	Status
Nepal	Completed in 2018
Title Technical support to formulate a National Agroforestry Policy for Nepal	
Objectives: To assist the Ministry of Agricultural Development (MoAD), and the Ministry of Forests and Soil Conservation (MFSC) of Nepal to formulate the National Agroforestry Policy of Nepal. This would help eliminate the hurdles and regulations on planting, felling, and transporting trees on non-forest lands.	
Impact • Anticipated increase in tree cover as well as resilience of rural community to climate change • A functional agroforestry policy that would mainstream agroforestry at landscape level and would help Nepal to mitigate and adapt to climate change • Increased food security from some of the trees by products i.e. fruits, nuts, livestock fodder etc	

Technical Assistance – Case Studies

Country Indonesia	**Status** Under preparation
Title Identification of technical practices for climate-smart agriculture (CSA) in Indonesia	
Objectives • Identify and design climate-smart agriculture (CSA) technologies and associated system for enhancing climate change adaptation in agriculture sector in Indonesia in 2 sectors: The use of sensors that can identify water content and soil chemistry on agricultural land and and Automation of watering and fertilizing tools according to land requirement • Market potential and cost-benefit analyses for the deployment of the integrated system will be carried out. • Capacity of national and local governmental officials will be enhanced.	
Impact • Facilitate implementation and replication of CSA technologies in Indonesia, supporting to achieve the goal and strategies of its National Adaptation Plan.	

Technical Assistance – Case Studies

Country Mali	**Status** Under implementation
Title Definition, Selection, Development and Deployment in a pilot commune of an agrometeorological information system agrometeorological to improve crop management in Mali	
Objectives •Define, select, develop and implement in a pilot commune a "weather and climate information service system" to support decision-making in the agricultural sector. •Ensure that the information on future weather conditions is relevant and timely communicated to support strategic and tactical crop management decisions. •Ensure capacity building for both system administrators and system users. •Define a plan to expand the system to other communes	
Impact • Improve agricultural productivity and increase farmers' incomes, thereby reducing the impact of climate change and minimizing the risk of food insecurity.	

Technical Assistance – Case Studies

Country Burundi	**Status** Under preparation
Title Benchmark, select and deploy a low-cost, climate resilient, re-usable, easily replicable, scalable and mobile flood barrier to prevent damage from flooding and ensure water availability in times of drought in Rubira Hills, Musenyi area of Mpanda Commune in Bubanza, Burundi.	
Objectives • Map the regional, sub-national and national stakeholders, • Elaborate a flood and drought assessment • Select the mobile flood barrier to be implemented in Rubira Hill in one pilot area • Implement the small pilot in the selected area and ensure capacity building of future users and beneficiaries of the technology • Define a M&E framework • Formulate a roadmap (including financial consideration) for the scale up of the technology	
Impact • Enhance the resilience of the selected commune to climate induced flooding and drought.	

Opportunities in the Area of Agriculture

Digital Technologies

The application of digital technologies (information systems, UAV, AI, IoT, etc.) allows better planning, improved decision-making, large-scale dissemination of real-time information, better communication and many other benefits.

Post-harvest Actions

Minimal post harvest losses through enhanced technologies including food processing, storage and transportation, are essential for a resource efficient, resilient agricultural sector and food secure economies.

Challenges in the Area of Agriculture

Lack of information and Robust Policy

Lack of access to and knowledge of agrometeorolgical information, modern agricultural technologies, and demand are limiting the ability of farmers to improve their operations. This increases their vulnerability to climate change, causes food loss and risks livelihoods.

Land reforms - ownership

Value Chain Gaps

The focus on improving efficiencies in one part of the agricultural value chain may be undermined by the inefficiency of another part further down or up the value chain. A holistic perspective on agricultural value chains is therefore crucial to improve the efficiency of the sector. This requires close coordination between different actors, including the public sector.
Gaps in the post-harvest preservation & storage and market access are some of the main challenges experienced especially in developing nations

Possible Contribution of Koronivia Joint Work

- Provide guidance on research, usage and large-scale dissemination of digital technologies in the agricultural sector to harness their potential for farmers
- Promote a holistic perspective on agricultural value chains which necessitates collaboration between different stakeholder groups
- Advocate for Policy Interventions on land reforms.

CTCN

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