ADB ASIAN DEVELOPMENT BANK

Thailand: Climate Change Adaptation in Agriculture for Enhanced Recovery and Sustainability of Highlands

Project Name	Climate Change Adaptation in Agriculture for Enhanced Recovery and Sustainability of Highlands
Project Number	53099-001
Country	Thailand
Project Status	Proposed
Project Type / Modality of Assistance	Technical Assistance
Source of Funding / Amount	
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships Private sector development
Sector / Subsector	Agriculture, natural resources and rural development - Agricultural policy, institutional and capacity development - Agricultural production - Agro-industry, marketing, and trade - Forestry - Land-based natural resources management - Rural market infrastructure - Water-based natural resources management
Gender Equity and Mainstreaming	Effective gender mainstreaming
Description	Impact, outcome and outputs: The proposed TA aims to reduce vulnerability and enhance adaptive capacity of highland communities and ecosystems to cope with current and projected climate change impacts. The TA is aligned with the following impact: agricultural competitiveness in highlands improved. The TA will have the following outcome: capacities and policy support for adopting climate-smart agriculture in project areas strengthened. The TA has four outputs as listed below. Output 1: Baseline data for assessing climate change vulnerability of highland agriculture improved. Key activities include: (i) consultations with local governments, local communities and experts on climate change vulnerability of highland agriculture; (ii) collection and analysis of baseline information for climate change vulnerability in different subsectors of agriculture, and preparation of a simple guidance manual; (iii) organizing workshops for local authorities and communities on vulnerability assessment; (iv) analysis of current and future change scenarios and impacts on highland agriculture; and (v) development of knowledge products on climate change vulnerability assessment in highlands. Output 2: Gender-conscious, climate-smart agricultural practices prioritized and demonstrated. Key activities include: (i) preparation of an inventory of CSA practices for Nan province; (ii) assessment and prioritization of locally-appropriate and gender-conscious CSA practices; (iii) conducting cost-benefit analysis of 3-4 priority CSA practices; (iv) demonstration of the priority gender-conscious CSA practices at selected sites; (v) preparation of a climate-friendly agribusiness value chain investment project for Nan province to scale up and replicate successful CSA practices; and (vi) development of knowledge products on CSA. Output 3: Agricultural product quality, value addition and market linkages enhanced. Key activities include: (i) identification of priority products for quality improvement and value addition (processing, packaging, branding and marketing) in collaboration with the private sector; (ii) training on organic certification, PGS, geographic indication, good agricultural practices (GAP) and other certification schemes; (iii) assessment of impacts of the 4th Industrial revolution technologies (Industry 4.0) in improving agricultural competitiveness of highland agriculture; (iv) demonstration of Industry 4.0 technologies for traceability and circular economy in the agriculture sector; (v) conduct of workshops to strengthen capacity of the private sector and local farmers in farm mechanization, agricultural product quality and safety enhancement and value addition approaches; (vi) engagement of private sector agricultural service providers, transporters, and purchasers to help advise farmers on how to improve quality and marketability of agricultural products; and (vii) preparation of knowledge products on food safety, quality and value addition. Output 4: Capacity of local governments and communities to address climate change strengthened. Key activities include: (i) organizing awareness raising workshops on climate change and agriculture to local governments, communities, youth and students, including women; (ii) training government staff to prepare local climate change action plans in the agriculture sector, and integrate climate change in local development plans at both policy and operational levels; (iii) training local communities on adaptation measures to build community resilience, including alternative livelihood options; (iv) conducting workshops on application of remote sensing, geographic information systems (GIS) and mobile phone-based applications to improve natural resource management standards and resilience of highland communities and ecosystems; (v) conducting field visits to promote learning from the TA demonstration sites; and (vi) organizing national and subregional workshops on climate change adaptation in agriculture.
Project Rationale and Linkage to Country/Regional Strategy	Agriculture remains a key sector in Thailand's economy, with over 48% of population living in rural areas and over 30% employed in agriculture. In northern Thailand, monocropping (especially maize) has become the dominant economic activity following conversion of large tracts of forests into agricultural land. Unsustainable farming practices and over-exploitation of natural resources led to severe resource degradation, low productivity, negative health impacts, and unstable incomes. Key challenges facing the highland agriculture in provinces such as Nan include: (i) severe soil erosion due to crop cultivation on sloping areas without adequate soil conservation measures; (ii) high soil degradation resulting from monoculture; (iii) high soil and water pollution due to sloping area and inappropriate use of fertilizers and pesticides; (iv) high sedimentation in water bodies, leading to low carrying capacity; (v) lack of land ownership or user rights; and (vi) limited collaboration and cooperation of local ethnic groups living in upstream areas with local governments. Climate variability and change, manifested through rising temperatures and a greater frequency of extreme weather events such as droughts and floods, is exacerbating the problems. The ethnic mountainous farmers in remote areas are directly and severely impacted by climate change. Addressing degradation of natural resources and impacts of climate change, in close cooperation with local farmers, CSOs and governments, is critical to enhance recovery and sustainability of highland communities and ecosystems.
Impact	
Outcome	
Outputs	

Geographical Location

Summary of Environmental and Social Aspects
Environmental Aspects
Involuntary Resettlement
Indigenous Peoples
Stakeholder Communication, Participation, and Consultation
During Project Design
During Project Implementation

Responsible ADB Officer	Ancha, Srinivasan
Responsible ADB Department	Southeast Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, SERD
Executing Agencies	Ministry of Agriculture and Cooperatives Ratchadamnoen Nok Bangkok 10200, Thailand

Timetable	
Concept Clearance	21 Dec 2020
Fact Finding	10 Feb 2020 to 12 Feb 2020
MRM	-
Approval	-
Last Review Mission	-
Last PDS Update	13 Apr 2020

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