

Goal of Approach:

Coping with the impact of climate change on agriculture and food and nutritional security.

The agricultural sector both affects and is affected by climate change. While it contributes to mitigating it, agriculture affects climate change through the emission of greenhouse gases (GHGs) from croplands and animals. It is affected by loss of agricultural land, salt water intrusion, changes in temperature and rainfall regimes and increasingly severe weather hazards. The key objectives of this priority area are to identify innovative technologies and appropriate practices for coping with the adverse impacts of climate change, and to reduce the contribution of agriculture to GHG emissions while improving its role as a carbon sink. The primary tools will be assistance with policy formulation, technical assistance and capacity building support, advocacy, case studies in selected major food production areas on the impact of climate change, and dissemination of suitable technical options and practices. Expected results include strengthened FAO contribution to policy dialogues and technical cooperation, exchange of information on research and development of climate change-resilient varieties, development of agricultural strategies with strong potential for climate change adaptation and mitigation, identification and promotion of improved crop, aquaculture and livestock production systems and practices contributing to reduced GHG emissions.

Input provided by: FAO Regional Office for Asia and the Pacific

Main elements of the implementation strategy

1. identify innovative technologies and appropriate practices in sub regions for coping with the adverse impacts of climate change on the agricultural sector with a view to protecting and consolidating progress in food security and nutrition; and
2. reduce the contribution of agriculture, including livestock and aquaculture and deforestation, to GHG emissions and integrate climate change adaptation and mitigation into strategies for agriculture and rural development.

The primary tools are:

- formulate and mainstream regional, sub regional and national level policies and action plans to reduce agricultural GHG emissions and help the agricultural and rural sector adapt to climate change and contribute more to mitigating its effects;
- advocate that food security and nutrition issues be placed onto the climate-change policy agenda for ensuring efficient and pro-poor responses to emerging risks;
- advocate mainstreaming of the role of trees and forests in climate change adaptation and mitigation measures;
- technical assistance and capacity building support to REIOs and sub regions on suitable practical measures and best practices (including drought resistant varieties of crops, good agricultural practices, improved irrigation, land and water management and sustainable management of forests, fisheries and aquaculture) to reduce GHG emissions and encourage investment in cost-effective adaptation measures;
- case studies in selected major food production areas on the impact of climate change and its implications for food production and agricultural water use;
- dissemination of suitable technical options and practices on climate change adaptation and mitigation in different agriculture sub-sectors in the region;
- technical assistance in developing models and methodologies to assess the impact of bioenergy production systems on food security and nutrition;
- participation in policy and technology knowledge networks to improve understanding of the linkages between animal agriculture and climate change and dissemination of incentive-based mitigation measures;
- technical assistance in assessment of bioenergy policy frameworks to integrate food security and nutrition concerns into bioenergy strategies and action plans;
- provision of technical advice on coastal livelihoods improvement and microfinance programmes for enhanced stakeholder participation in adaptation to climate change; and
- support to member countries and regional fishery bodies (RFBs) in strengthening their capacity for integrated monitoring, control and surveillance of climate change impact on rural livelihoods, food security and balanced nutrition.

Targeted beneficiaries
Government (National and Local Level), Farmers
Any significant lessons learned
<p>The results are:</p> <ul style="list-style-type: none"> strengthened FAO contribution to policy dialogues and technical cooperation at regional, sub regional and national levels on climate change adaptation and mitigation in agriculture, forestry and fisheries; exchange of information on research and development of salt-, drought- and flood-tolerant varieties of crops for climate change adaptation and mitigation promoted; political will and commitment to address deforestation and land, water and forest degradation mobilized and confirmed with increased funding for climate change adaptation and mitigation in forestry; agricultural strategies with strong potential for climate change adaptation and mitigation incorporating sustainable forest, fisheries and crop and livestock husbandry management practices selected and promoted; improved crop, aquaculture and livestock production systems and practices contributing to GHG reduction identified and promoted; better understanding and awareness of the impact of climate change on livestock production systems in Asia and the Pacific region and adoption of environment-friendly pro-poor livestock sector policies; practical technologies and innovations on climate change adaptation and disaster risk reduction identified and widely adopted; and fishing communities have improved livelihood resilience to problems arising from climate change.
Resource requirements
Institutional setting, Mobilizing funds, Monitoring and evaluation, Technical networking, Partnerships
Potential for replication or scaling-up
<ul style="list-style-type: none"> Sustainable management of forests and trees is more broadly adopted, leading to reductions in deforestation and forest degradation and increased contributions of forests and trees to improve livelihoods and to contribute to climate change mitigation and adaptation Environmental values of forests, trees outside forests and forestry are better realized; strategies for conservation of forest biodiversity and genetic resources, climate change mitigation and adaptation, rehabilitation of degraded lands and water and wildlife management are effectively implemented Countries have strengthened capacities to address emerging environmental challenges, such as climate change and bioenergy
Any additional information