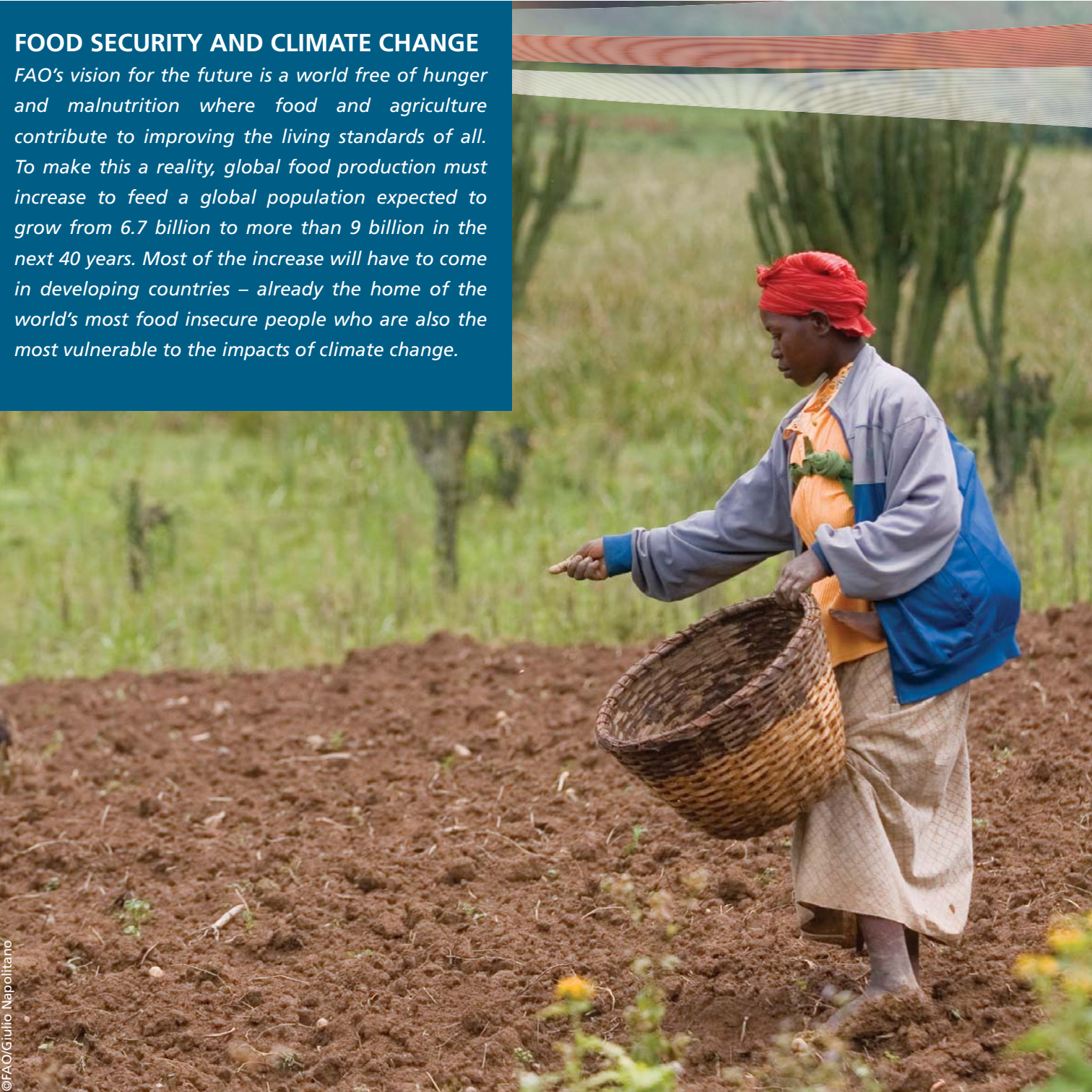
FAO-ADAPT

Framework Programme on
Climate Change Adaptation

FOOD SECURITY AND CLIMATE CHANGE

FAO's vision for the future is a world free of hunger and malnutrition where food and agriculture contribute to improving the living standards of all. To make this a reality, global food production must increase to feed a global population expected to grow from 6.7 billion to more than 9 billion in the next 40 years. Most of the increase will have to come in developing countries – already the home of the world's most food insecure people who are also the most vulnerable to the impacts of climate change.



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GLOBAL FOOD SECURITY

Facing climate change and responding to its challenge

Coping with changes in climate patterns is nothing new for farmers. They have had to adapt to changes and climate variability throughout the millennia. However today, the pace of the change is increasing, and as change accelerates, farmers also must speed up their ability to adapt.

Indisputably, climate change is part of today's reality, bringing with it rising temperatures, more extreme weather events and shifting seasons. Nowhere is its impact more evident than in agriculture, where farmers, herders and fishermen face reduced yields, water shortages, increased weed and pest proliferation and loss of agricultural biodiversity.

For decades, FAO has been a global leader in raising awareness of the reality of climate change, its impacts on food security and the steps needed to face it. This includes promoting climate-smart agricultural practices that:

- increase resilience to climate change – ADAPTATION,
- reduce or remove greenhouse gases – MITIGATION,
- enhance achievement of NATIONAL FOOD SECURITY.

INTRODUCING FAO-ADAPT

A catalyst for FAO's work on climate change adaptation

FAO-Adapt is FAO's response to the global call for measures to tackle climate change through adaptation. A framework for climate change adaptation, FAO-Adapt promotes activities in agriculture, forestry and fisheries that can lead to sustainable production increases while at the same time promoting resilience to the current and future impacts of climate change.

With FAO-Adapt, FAO establishes a core strategy to ensure that all climate change adaptation efforts move ahead in a coordinated fashion toward a clear and unified goal. FAO-Adapt helps mainstream climate change into all FAO development activities which will improve the uptake of climate-smart agriculture at national, regional and global levels.

FAO-Adapt was developed through a collaborative effort across FAO involving headquarters technical departments and regional and subregional offices, and coordinated by the FAO Interdepartmental Working Group on Climate Change (IDWG-CC). This body has been coordinating FAO's cross-departmental, multidisciplinary work on climate change since 1988.

*A set of guidelines to assist policy makers in **integrating climate change into national forest programmes** was developed by FAO. The scope is to help decision-makers and stakeholders to identify and prioritize required changes in policy and practice. These guidelines provide decision makers and stakeholders with an operational approach for integrating climate change into the national forest programme frameworks. Guidance is given at the strategic level and specific operational actions are indicated as well as sources of information to facilitate the process. The guidelines have been developed in collaboration with the NFP-Facility. www.fao.org/forestry/climatechange/64862*

FAO-Adapt paves the way for consolidating FAO's adaptation activities

FAO-Adapt is an organization-wide framework programme that provides general guidance and introduces principles as well as priority themes, actions and implementation support to FAO's activities for climate change adaptation.

- FAO-ADAPT offers an initial consensus and comprehensive view of the way forward for mainstreaming climate change adaptation into all FAO development activities and contribute to heading off negative climate impacts.
- FAO-ADAPT catalyses FAO's adaptation activities to increase its ability to respond to member country requests for support in implementing climate change adaptation measures in agriculture, forestry and fisheries.
- FAO-ADAPT brings together the body of climate change adaptation work accomplished by FAO, its technical units, decentralized offices and regional bodies.
- FAO-ADAPT aims to enhance coordination, capacity development and sharing of experiences on adaptation within FAO and among its member countries to widen the coverage, encourage synergies, enhance cross-sectoral approaches and optimize the use of resources for adaptation.
- FAO-ADAPT facilitates external and internal communication as well as mobilization of additional resources for FAO's work on adaptation.
- FAO-ADAPT fosters partnerships related to adaptation, including UN agencies, international financing and research institutions, and regional organizations.

THEMES THAT GUIDE FAO WORK ON ADAPTATION

In analyzing local national, regional and global adaptation needs in agriculture, forestry and fisheries, FAO identified five overarching themes that now stand to guide FAO's work on adaptation and at the same time contribute toward achievement of FAO's strategic objectives.

Data and knowledge for impact and vulnerability assessment and adaptation

Countries need a sound understanding of their vulnerability to climate change and its current and future impacts on their food systems, ecosystems, societies and national economies. FAO supports countries and decision-makers in building and strengthening capacities and developing innovative, user-friendly tools and methods for assessing these impacts and vulnerabilities and planning adaptation strategies. Communication and information sharing promote people's participation and ownership of adaptation planning and activities.

FAO also facilitates effective use of climate information to reduce vulnerability and manage climate risks in food and agriculture with specific focus on vulnerable developing countries, including small island developing states (SIDS) and least developed countries (LDCs). FAO makes its climate information available to all, including policy-makers, planners, service providers to local communities and the public. FAO supports institutional partnerships, cross-disciplinary collaboration, development of decision support tools as well as of risk management and adaptation practices. It has developed a series of methods and tools that provide fundamental information for informed planning of climate change adaptation practices.

Institutions, policies and financing to strengthen capacities for adaptation

Adapting to climate change requires adjusting institutional structures and arrangements. This includes defining adequate national policy and legislative frameworks and assigning and coordinating responsibilities within the governance structures of countries and regions. Iterative planning, participatory and systems-based approaches and strong stakeholder engagement should be key principles in adaptation. Access to adaptation financing is usually a prerequisite for countries to effectively implement adaptation activities. In addition, FAO emphasizes that institutions and decision-makers must remain flexible for dealing with uncertainties of potential climate change impacts.

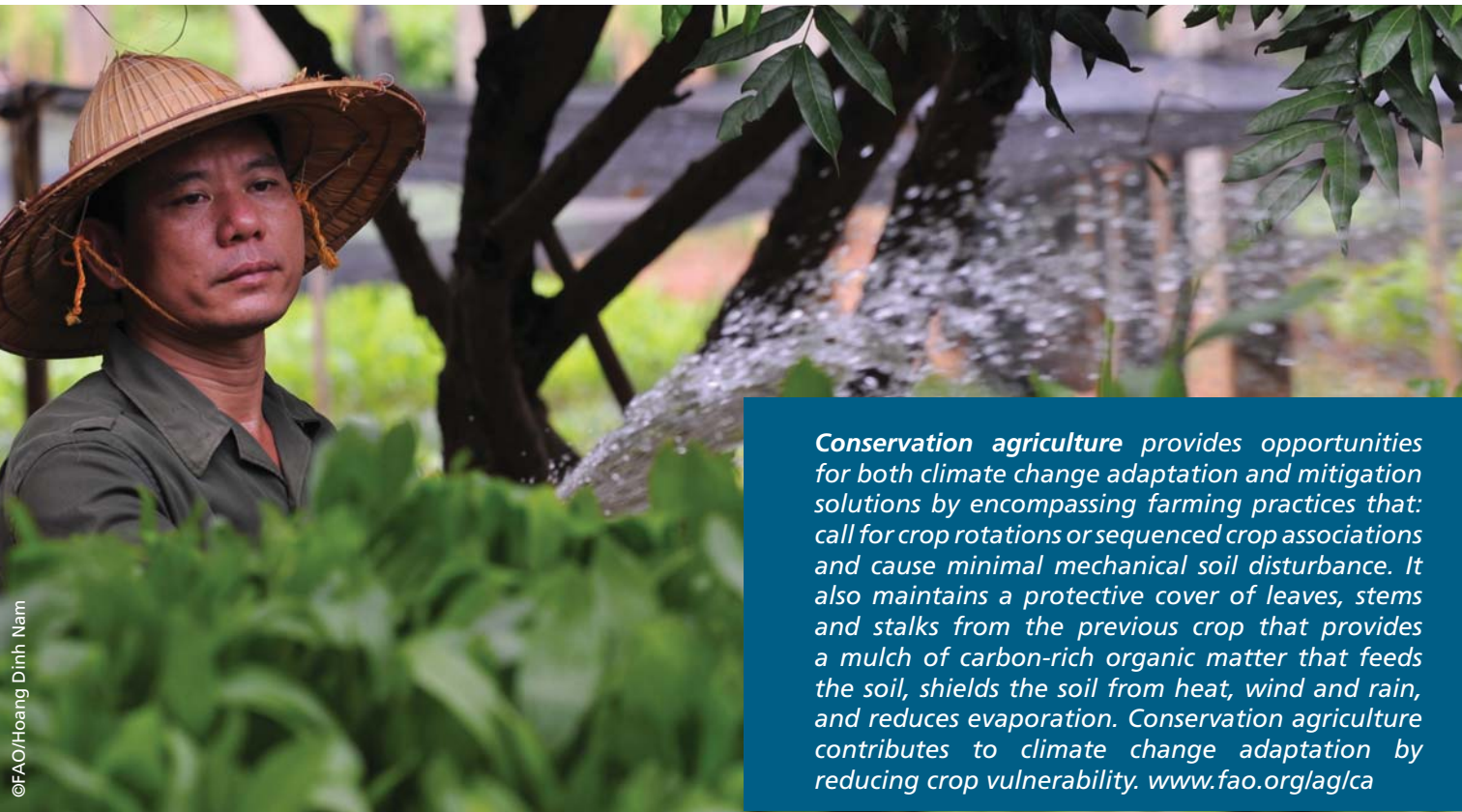
*FAO established its **Technologies for Agriculture (TECA)** initiative in 2002 to improve information and knowledge sharing about proven technologies and encourage their adoption. TECA provides Web-based communication tools to improve documentation and the sharing of good practices by customizing them to the needs of each user. Its interactive features hold great potential to improve linkages among extension staff, researchers, farmers organizations and other stakeholders involved in agricultural innovation. http://teca.fao.org*

Sustainable and climate-smart management of land, water and biodiversity

The healthy functioning and resilience of ecosystems depends to a great extent on maintaining biological diversity. This requires increasing understanding of the ecosystem services secured by agricultural, aquatic and forest biodiversity and identifying potential impacts of climate change. FAO strongly argues for priority actions in sustainable and adaptive natural resources management, such as land-use planning and soil and water management, to increase production system resilience to climate change. The response in some cases may require major qualitative changes in the natural resource management strategies, such as shifting from tillage-based production to a non-tillage based system, such as conservation agriculture.

Technologies, practices and processes for adaptation

The built-in adaptation capacity of ecological and human systems may not be enough to deal with expected medium- to long-term impacts of climate change. Therefore, FAO supports the development and dissemination of technologies, practices and processes related to agriculture, forestry and fisheries, value chains and rural energy demands, as well as rural income diversification with the aim to increase resilience of the production systems and livelihoods. Considering the limited access of women to appropriate technologies, which curbs their productivity potential, FAO pays special attention to ensuring women have adequate access to technologies.



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Conservation agriculture *provides opportunities for both climate change adaptation and mitigation solutions by encompassing farming practices that: call for crop rotations or sequenced crop associations and cause minimal mechanical soil disturbance. It also maintains a protective cover of leaves, stems and stalks from the previous crop that provides a mulch of carbon-rich organic matter that feeds the soil, shields the soil from heat, wind and rain, and reduces evaporation. Conservation agriculture contributes to climate change adaptation by reducing crop vulnerability. www.fao.org/ag/ca*

Nepal is one of the global "hot spots" for natural disasters. This country is prone to a variety of recurring natural disasters such as floods, drought, land slides, hailstorms, snow avalanches, hot and cold waves and pest and disease epidemics. Agriculture is one of the most exposed sectors to effects of theses disasters. To respond to these climate risk impacts FAO is assisting Nepal to shift from a reactive emergency response to a proactive ***disaster risk management*** *that protects agricultural livelihoods. A series of adaptation options is being tested including crop diversification and rain water harvesting among many other options. www.fao.org/climatechange/56995*

DISASTER RISK MANAGEMENT

Increasing frequency and intensity of extreme weather events call for strengthened disaster risk management, improved local practices for risk reduction and enhanced emergency responses. Building on its long-standing experience in sustainable development and disaster risk management, FAO prioritizes disaster risk reduction as an entry point to climate change adaptation in areas under frequent threat of climate-related emergencies.

LOOKING AHEAD

Initial activities to support the implementation of FAO-Adapt relate to improved information sharing, knowledge management, and capacity and tool development for climate change adaptation. Preliminary work will include initiating resource mobilization activities, establishing a resource allocation and oversight body, and preparing a comprehensive adaptation approach to pilot in a few pilot countries.

With this cohesive, organization-wide framework, FAO-Adapt can provide a clear picture of the need for, and the application and the outcome of FAO adaptation activities, as it seeks support for both the short-term responses to immediate needs but also for long-term strategically planned investments for helping its member countries adapt to climate change.

*FAO is an active member of the **Global Partnership for Climate, Fisheries and Aquaculture (PaCFA)**, a voluntary global level initiative among international organizations and sector bodies with a common concern for climate change interactions with global waters and living resources and their social and economic consequences. An immediate aim of the Partnership is to highlight key issues to alert and inform decision makers and climate change negotiators at UNFCCC meetings. From this, global, national and local responses can be formulated and implemented for adaptation and mitigation in aquatic ecosystems and for fisheries and aquaculture and in national and local responses to climate change. www.climatefish.org*

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Food and Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
00153, Rome, Italy
www.fao.org/climatechange/fao-adapt

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