

The Center for International Forestry Research

CIFOR's PROJECTS ON ADAPTATION SUPPORTS THE NAIROBI WORK PROGRAMME

Action pledges through research on tropical forests and climate change adaptation, to the Nairobi work programme on impacts, vulnerability and adaptation to climate change

Following the invitation by the UNFCCC Secretariat for pledges of actions to support the Nairobi Work Programme (NWP), CIFOR is responding to this request by making action pledges in contribution to the programme, using corresponding areas of the programme, to CIFOR's global research activities on tropical forests and climate change adaptation

About the Institution

The Center for international Forestry Research (CIFOR) was established in 1993 as part of the CGIAR in response to global concerns about the social, environmental and economic consequences of forest loss and degradation. CIFOR's purpose is to advance human well-being, environmental conservation and equity by conducting research to inform policies and practices that affect forests in developing countries. Under CIFOR's new strategy for research operationalized in October 2008, two out of six research domains are on climate change, one of which is on adaptation. Most obvious, forests have now taken centre stage in the international debate on climate change. The research domain (2) on adaptation is on enhancing the role of forests in adaptation to climate change with the principal research themes of bringing climate change adaptation into forest management, and mainstreaming forestry into climate change adaptation.

CIFOR currently have two ongoing projects on climate change adaptation. The first is the Tropical Forests and Climate Change Adaptation (TroFCCA) which is a global project implemented three region across eight countries (Central America: Costa Rica, Nicaragua and Honduras), West Africa (Mali, Burkina Faso, Ghana) and Southeast Asia (Indonesia, Philippines). The second project is the Congo Basin Forests and Climate Change Adaptation (CoFCCA) implemented in Democratic Republic of Congo, Central African Republic and Cameroon. CIFOR is well placed to contribute to the Nairobi Work Programme through these research projects in different global locations and tropical forests types.

CIFOR and the Nairobi Work Programme

Overall Objective

The over goals of CIFOR's projects on adaptation are to ensure that forestry policy and practices adequately address the need to protect forest-dependent livelihoods from adverse climate change and to ensure that adaptation strategies adequately incorporate improved forest management.

The main objective of the projects is to contribute to national processes of adaptation to climate change through the assessment of vulnerability and development of policy-orientated adaptation strategies that also ensure sustainable use of forest resources.

CIFOR and NWP Areas of work

The research activities of the Center for International Forestry Research (CIFOR) on Forests and Climate Change Adaptation can potentially contribute to the following sub-themes of the Nairobi Work Programme (NWP):

SUB-THEME A: IMPACTS AND VULNERABILITY

PLEDGE CONTRIBUTION TO NWP OBJECTIVES:

- (i) Promoting development and dissemination of methodologies and tools for impact and vulnerability assessments, such as rapid assessments and bottom-up approaches, including as they apply to sustainable development;
- (iv) Promoting understanding of impacts of, and vulnerability to, climate change, current and future climate variability and extreme events, and the implications for sustainable development;
- (v) Promoting the availability of information on the socio-economic aspects of climate change and improving the integration of socio-economic information into impact and vulnerability assessments

CIFOR's ADAPTATION PROJECT ACTIONS

CIFOR is developing methodological approaches for the followings:

- a) Prioritization of forest-based sectors for adaptation through engagement and participatory actions of multiple stakeholders sharing the forest ecosystem
- b) Vulnerability assessment of climate change impacts on the prioritized forest-based development sectors.
- c) Development of criteria and indicators for vulnerability assessment in tropical forest ecosystem

SUB-THEME B: ADAPTATION PLANNING MEASURES AND ACTIONS

PLEDGE CONTRIBUTION TO NWP OBJECTIVE:

- (i) Promoting the development and dissemination of methods and tools for assessment and improvement of adaptation planning, measures and actions, and integration with sustainable development;
- (ii) Collecting, analyzing and disseminating information on past and current practical adaptation actions and measures, including adaptation projects, short- and long-term adaptation strategies, and local and indigenous knowledge;
- (iii) Promoting research on adaptation options and the development and diffusion of technologies, know-how and practices for adaptation, particularly addressing identified adaptation priorities and building on lessons learned from current adaptation projects and strategies;

- (iv) Facilitating communication and cooperation among and between Parties and relevant organizations, business, civil society and decision makers, and other stakeholders;
- (v) Promoting understanding and the development and dissemination of measures, methodologies and tools including for economic diversification aimed at increasing economic resilience and reducing reliance on vulnerable economic sectors, especially for relevant categories of countries listed in Article 4, paragraph 8, of the Convention.

CIFOR's ADAPTATION PROJECT ACTIONS

CIFOR projects on adaptation are undertaking the following actions:

- 1) Developing adaptation strategies that emphasise the linkages between climate change, forest ecosystems and livelihood and mainstreaming this into national development policies that will support adaptation by rural and urban people, particularly the most vulnerable.
- 2) Highlighting the special needs of indigenous forest people for adaptation and gender – base vulnerability.
- 3) Documentation of indigenous coping strategies in forest systems

CIFOR's ADAPTATION PROJECT ACTIVITIES

The activities of CIFOR projects are structured into phases each with a central activity guiding the implementation of the overall objective. The phases and activities however are overlapping in providing transition to the other. The principal activities include:

- 1) Setting stakeholders platform, initiating science-policy dialogue process at regional, national and local levels
- 2) The identification and prioritisation of forest-based sectors through a regional science-policy dialogue process, for the assessment of climate risks and the vulnerability of livelihoods linked to these prioritised sectors, for planning adaptation strategies to climate change and climate variability.
- 3) Development of methodology for vulnerability assessment of the prioritized sectors
- 4) The assessment of vulnerability of gender and minority groups including indigenous communities, to highlight their special needs for climate change adaptation, and explore ways of engaging their participation in national adaptation planning processes and policy formulation

The methodology to assess vulnerability of tropical forests to climate change is comprised of twelve steps. The project acknowledges the close link existing between the processes of adaptation and development and, hence, it starts with the identification of the development priorities where the assessment will be focused.

This generic methodology sets the framework for the development of specific methodologies for each of the topics selected by each region and for the assessment of carbon (link between adaptation and mitigation) and biodiversity.

The following is a description of the 12 steps that comprise the methodology:

1. Definition of the areas/topics from the national development policies:
2. Specification of the goods and environmental services (G/S) that support/relate to the areas/topics identified in the previous step

3. Assessment of the ecosystem functions underlying the goods and services identified in the previous step
4. Assessment of the biophysical processes and parameters that control the functions identified in the previous step
5. Assessment and analysis of the climatic variables/parameters that can have a direct effect in the parameters assessed in the previous step.
6. Selection of case studies
7. Development of climate scenarios
8. Identification of current and future biophysical impacts
9. Assessment of the derived impacts
10. Vulnerability assessment

The assessment of vulnerability is focused at the policy topics/areas identified in step 1. Changes in the provision of goods and services as the edge of the impact chain is assessed in the broader context of other processes that may affect the topic(s)/area(s) under study and the implications relevant for the development policy.

The steps provides a thorough assessment of the importance of forest ecosystems in the respective topic(s)/area(s) as well as how and how likely are impacts from climate change over forests affect the topic(s)/area(s). The assessment of vulnerability will be undertaken at the environmental and socioeconomic levels.

OUTPUTS

- 1) A framework that describes a stepwise approach and the tools to be used in undertaking the assessment of sector vulnerability to climate change associated to climate change impacts on the forests.
- 2) Gender issues will be accounted for in this methodology through the assessment of vulnerability to various climate stresses by different gender groups, in order to identify gender-specific requirement for adaptation.

Which organisations, communities and experts will be engaged in the activity?

- CATIE will undertake several activities of the project. Some of these activities will be centralized (see below).
- NARs in all the participating countries
- Community groups
- Private sectors, forest operators
- National focal point to UNFCCC
- Government departments
- NGOs (international, national and local)
- An expert scientific steering panel
- Consultants
- Doctoral and master students
- ETC

What are the concrete outputs envisaged to achieve the specific objectives?

- 1) Development of ecosystem services balance sheets as a baseline for outcomes mapping and for progress monitoring and evaluation. That will also highlight the benefits of the forest for policy and decision making process and highly vulnerable areas will be identified for special adaptation measures within development policy context. This will be realized in the first year of the project.
- 2) Within the framework of the participatory action research approach and outcome mapping, specific methodologies for vulnerability assessments to climate impacts of prioritized regional development topics/ areas highly will be developed. This will be available in mid term of the second year of the project.
- 3) Simplified sets of criteria and indicators for adaptive forest management, and directly relevant for monitoring adaptation strategies for the specific development sectors identified by the project. This will be achieved in the fourth phase in year two.
- 4) Vulnerability maps including climate risk maps for the forest ecosystem including for each of the development sectors identified and prioritized by the stakeholders for the sites and country levels and under different scenarios will be produced to guide policy makers and adaptation planning strategies by the local communities. This will realized for each year of the project.

A general methodology for the assessment of vulnerability. The methodology follows the principles and work undertaken in the past by the IPCC and UNEP and incorporates the latest ideas on adaptation in the context of the adaptation policy framework by making an emphasis on the development side of adaptation. This product will be ready in the first half of phase 2.

Specific methodologies for regions: The specification of the general methodology will be undertaken in accordance with the focus of each region. This will result in at least three methodologies for the topics selected for each region. The methodologies will be ready by the end of phase 2.

Methodologies for the assessment of vulnerability of biodiversity: All regions will perform an assessment of the vulnerability of biodiversity to climate change derived from impacts over forests. The methodology will be developed in conjunction for the three regions.

Methodology for the assessment of the link between adaptation and mitigation: All regions will perform an assessment of how climate change can lead to loss of stored carbon and, hence, a feedback from climate impacts from the increased concentrations of CO₂ in the atmosphere. As for the methodology on biodiversity, this will be developed in conjunction for the three regions.