UNEP RISØ CENTRE

ENERGY, CLIMATE AND SUSTAINABLE DEVELOPMENT

FACILITATING IMPLEMENTATION AND READINESS FOR MITIGATION (FIRM)

AN UPDATE ON THE FIRM PROJECT NOVEMBER 2013

Helping countries identify the right mitigation action for a specific context and incorporating it into a country's sustainable development plan is at the core of UNEP's flagship project, **Facilitating Implementation Readiness for Mitigation (FIRM)**. Through the project, countries "learn by doing," increasing their ability to identify ambitious and transformative emission-reduction opportunities. This means a step change in increasing energy efficiency, using renewable technologies, reducing deforestation, and removing fossil fuel subsidies, among other invaluable measures. As always, partnerships between government, business, finance, NGOs and concerned citizens are essential in order for this transition to occur.

As recently reiterated in the IPPC AR5 report, there is an urgent need for climate change mitigation actions if we hope to limit the global temperature increase to 2°C and concurrently limit the difficulty and cost of adapting to climate change impacts. UNEP works with countries to strengthen their ability to adapt to climate change, help them move towards low-carbon societies, improve their understanding of climate science, and raise public awareness of the Earth's changing climate.

FIRM's work specifically focuses on furthering Nationally Appropriate Mitigation Actions (NAMAs) in developing countries. As a key outcome of COP 16 in Cancun, NAMAs offer developing countries a flexible and country-specific way to contribute to global mitigation efforts, allowing them to develop plans that are adapted to each country's environmental, economic, and social situation. By helping them identify, develop and implement NAMAs, FIRM advances UNEP's goal of enabling countries to integrate climate change responses into national development processes and fulfil their obligations under the UNFCCC.

Funded by the Government of Denmark, FIRM builds on the groundwork laid by existing UNEP and UNEP Risø Centre (URC) programmes designed to support NAMA development. Using initiatives like the GEF-funded Technology Needs Assessments (TNAs), Technology Action Plans (TAPs) and various studies as a base, FIRM provides targeted NAMA development support to seven countries in Africa, Asia and Latin America.

The project not only generates knowledge about NAMAs through analytical work, it also fosters south-south cooperation so countries can adopt best practices from their neighbours. Through the project's inputs into UNFCCC process, and its participation in alliances like the NAMA Partnership, FIRM's work supports both the countries participating in the project and the larger international community. As countries join together to adopt a new instrument for the post-2020 period, FIRM could be an important stepping-stone that will allow countries to better analyse and develop low-carbon development strategies and contribute significantly to international climate change mitigation efforts.

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ACTIVITIES

FIRM's activities provide support to national processes for identifying and formulating NAMAs by enabling institutional arrangements, national MRV systems, and legal structures. Implemented by UNEP and the UNEP Risø Centre (URC), in-country activities involve relevant ministries, local centres of excellence, and national experts.

PARTICIPATING COUNTRIES

Nine countries in Africa, Asia and Latin America are participating in the FIRM project: Costa Rica, Ethiopia, Ghana, Indonesia, Mexico, Morocco, Senegal, South Africa and Vietnam. In Mexico and South Africa, the project will produce estimates associated with the uncertainty of national emission scenarios relevant to NAMA development. In the remaining countries, the project has two main components – aimed at supporting the preparation of low carbon development strategies and identifying NAMAs.

PROJECT OBJECTIVES

FIRM's main objectives are:

- To help countries understand the concept and technical aspects of low carbon development, as well as the analytical and methodological approaches to NAMA development and Measurement, Reporting and Verification (MRV) systems
- To link the outcomes of the TNA exercise and similar analytical processes with national low carbon development planning so countries can identify priority NAMAs
- To support pilot activities aimed at overcoming non-financial barriers for priority NAMAs in developing countries
- To enhance efficient use of energy and other resources, create enabling environments for uptake of clean technologies, and improve human and environmental well-being
- To foster South-South cooperation and mutual learning

IMPLEMENTATION

FIRM uses a country-driven approach, led by a designated national government agency. A broad range of stakeholders from both the public and private sector are involved, including, sector-specific experts, academia, civil society and project developers. All of the participating countries have already established an institutional framework for project implementation. One of FIRM's first actions was to highlight the importance of coordination within the government to ensure effective NAMA planning and implementation. Each country has established a coordinating committee and working groups that bring together technical experts from different ministries and the private sector.

Most of the participating countries have already undertaken various studies, including TNAs, for identifying GHG mitigation opportunities in their sustainable development plans. FIRM's focus areas for NAMAs development include renewable energy, transport, urban planning and energy efficiency in both industry and private households. A number of countries are also focusing on strengthening institutional arrangements for developing and implementing Low Carbon Development Strategies (LCDS) and MRV systems, either in a sector (mostly energy) or an entire nation (see table next page).

Country	NAMAs	LCDS
Costa Rica	Housing sector NAMA for the construction of 8,000 houses using materials that minimize GHG emissions, including related policy and regulatory framework.	Costa Rica is focusing on urban development for addressing climate change and is creating a strategy for sustainable urban conglomerations and low emission building construction.
Ethiopia	Urban solid waste NAMAs that develop policy and regulatory frameworks, as well as incentive mechanisms for landfill gas capture from waste treatment.	Ethiopia has developed a Climate Resilient Green Economy Strategy identifying key sectors for mitigating climate change. They are in the process of choosing a priority area for this strategy.
Ghana	NAMAs to promote Bus Rapid Transport systems as a sustainable mobility option in major cities and use of energy efficiency appliances in households.	Ghana has identified options for developing institutional structures to coordinate climate policy. It will also develop an MRV plan for evaluating implementation of its NAMAs.
Indonesia	NAMA to promote use of energy efficient technologies in steel manufacturing and solar electricity generation.	Indonesia has a well-elaborated medium-term climate change strategy and would like to develop MRV for NAMAs in the energy sector, which is a major source of emissions.
Morocco	NAMA to promote solar home PV systems and agricultural PV pumping.	Morocco has identified energy as a strategic sector for development and mitigating climate change. The country will focus on strengthening the institutional framework for LCD as well as design options for a MRV system.
Senegal	NAMAs to promote solar home systems and minigrid in rural areas and to promote biogas technology in rural areas for waste management and as an energy source.	Senegal aims to develop MRV systems and to strengthen the energy information collection system for GHG measurement. It plans to undertake an analytical study on how to improve the institutional context in regards to LCD.
Vietnam	NAMAs to increase wind-based electricity generation capacity and address emissions from animal waste in rural sector.	Vietnam has set a goal to meet 5% of its energy needs through renewable energy and will develop a strategy to achieve this target.

FIRM ACTIVITIES IN VIETNAM

In its desire to contribute to the global community's efforts to address the effects of climate change and achieve the goals of the UNFCCC, the Government of Vietnam has developed and implemented a number of policies, especially for mitigating greenhouse gas (GHG) emissions. The country's GHG emissions management plan includes reduction targets for 2020 for transport (8%), agriculture (20%), land use, land use change and forestry (20%), waste (5%), using 2005 as a base year. Vietnam is also studying potential NAMAs, establishing a national GHG inventory system and preparing its first Biennial Updated Report for the UNFCCC.

Drawing on results from the first phase of the TNA project, Vietnam is also implementing the FIRM project. Since it was launched in October 2012, the project has helped Vietnam assess the potential of renewable energy sources and gather information related to a number of wind energy and biogas projects. The result so far is the development of two potential NAMAs and their related action plans.

FIRM ACTIVITIES IN GHANA

Ghana is experiencing steady economic growth, but environmental degradation and climate change threaten to derail the modest gains it has achieved in socio-economic development. With the help of FIRM, the government created the Ghana Shared Growth and Development Agenda (GAGDA, 2010-2013) and a National Climate Change policy to tackle this challenge. Each of the two policy frameworks addresses environmental sustainability, poverty reduction and climate change, albeit with a different focus. Furthermore, Ghana has produced a list of 55 NAMAs geared towards meeting its climate and development goals.

In addition to its inception workshop, held in June 2012, FIRM has conducted two other training sessions in Ghana, one for the transport sector and the other on energy efficiency. At the latter, participants learned about various measures being pursued to promote energy efficiency and reduce emission of GHGs. For example, Ghana has been able to achieve a peak savings of 124 MW or 172.8GWh/annum by replacing 6 million incandescent lamps with CFLs and switching to CFL as the basic lighting technology.

FIRM ACTIVITIES IN MEXICO AND SOUTH AFRICA

Baseline scenarios are used in the formulation of domestic climate change policy and, in some countries, like Mexico and South Africa, are the reference for pledges to the UNFCCC. Expressing the baseline as a range of possible emission levels (as opposed to a unique best estimate) is a convenient way of accounting for the uncertainty associated with all scenario projections. This can increase the credibility of the baseline vis-à-vis both national and international stakeholders.

To this end, and in partnership with baseline developers in Mexico and South Africa, the FIRM project will produce quantitative estimates of key drivers of emissions, such as expected near-term economic growth rates or fuel prices. Drawing on these estimates, and using common probabilistic techniques, model projections of interest – typically emission by sector – can also be expressed as ranges. Not least, the project will help quantify the uncertainty associated with the model used to obtain those projections.

PUBLICATIONS AND TOOLS

As part of FIRM the following publications have been developed by UNEP and URC:

Low Carbon Development Strategies: A Primer on Framing Nationally Appropriate Mitigation Actions (NAMAs) in Developing Countries – This UNEP primer presents the basic principles behind NAMAs, explaining elements of the national LCDS and NAMA preparation process and providing a template for NAMA articulation.

Measuring Reporting Verifying: A Primer on MRV for Nationally Appropriate Mitigation Actions – The requirements for Measurement, Reporting and Verification (MRV) of NAMAs are among the crucial topics on the agenda of international negotiations addressing climate change mitigation. This document provides insights on how MRV for NAMAs can be performed and identifies elements and drivers to be considered when designing MRV systems for NAMAs in developing countries.

Understanding the Concept of Nationally Appropriate Mitigation Action – The goal of this publication is to enable national policy makers, private sector and technical experts and other stakeholders to acquaint themselves with the NAMA concept, providing a comprehensive overview in layman's terms.

National Greenhouse Gas Emissions Baseline Scenarios: Learning from Experiences in Developing Countries – Produced in partnership with the Organisation for Economic Cooperation and Development, the Danish Energy Agency, and the UNEP Risø Centre, this publication reviews practices in ten developing countries for preparing baseline scenarios. It highlights challenges and suggests elements of good practice.

RELATED UNEP/URC PUBLICATIONS:

Guidebook for the Development of a Nationally Appropriate Mitigation Action on Efficient Lighting – This guidebook illustrates how to create an efficient lighting NAMA based on a country-led national efficient lighting strategy. A practical resource for governments, private sector investors and civil society organizations that have already developed an efficient lighting strategy or are in the process of developing one.

FORTHCOMING:

Institutional Challenges to NAMAs – This publication analyses the challenges to organizing institutional structures or enhancing existing ones so that NAMAs can be successfully implemented and serve as vehicles for transformative and long-lasting change.

Measuring, Reporting, and Verifying NAMAs: Developing In-country Institutional Arrangements and Processes – Designed for policy makers and decision makers in developing countries, this publication will explain how MRV systems work, and how to make them operational. The publication will also be a supplement to "General guidelines for Domestic MRV", including guidance currently being developed by the COP.

For more information about FIRM and publication downloads, please visit the project's website: www.lowcarbondev-support.org