

## **MALAWI SUBMISSION ON NATIONALLY APROPRIATE MITIGATION ACTIONS (NAMAs)**

*This submission is made pursuant to paragraphs 33, 34 and 35 of COP17 Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) Outcome.*

### **Preamble**

Through the Initial and Second National Communications to the UNFCCC and national stakeholder forums, Malawi identified several mitigation options in various sectors including agriculture, energy, waste management, land use, land use change and forestry, and industrial processes.

Malawi makes this submission pursuant to Decision [-/CP.17], Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, paragraphs 34-35.

In order to contribute to the reduction of greenhouse gases so as to contribute to a global mitigation effort, in accordance with the principles and provisions of the Convention, Malawi intends to, depending on provision of finance, technology and capacity-building support by developed countries Parties, bilateral means, and other international and multilateral institutions, invest in the following areas:

### **Agriculture**

The nationally appropriate mitigation options in agriculture will constitute actions that will contribute to emission reductions while promoting economic development. Recognizing that agriculture accounts significantly to the emissions, this NAMA is prepared with a view to contribute to reduction of GHGs taking into account the overriding need to ensure food security and sustainable livelihoods.

- Documentation of GHGs in agriculture (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, CFC, HFC, NO<sub>x</sub>) Quantification of GHGs emission levels under different farming management practices with a view to enhance development of national carbon accounting.
- Changes in agricultural practices and systems that include integrated pest management, crop rotation, conservation agriculture, post harvest handling and storage, water harvesting, watershed management, soil and water conservation, Irrigation
- Enhance participatory research and technology development in crop, livestock, and fisheries production and management; land and water management.
- Agricultural advisory service and information systems focusing on participatory extension approaches.
- Strengthen local and farmers' institutions and organizations
- Promote Microfinance schemes, including ensuring functioning financial markets and institutions
- Increase focus on risk sharing and risk reducing across the entire value chain
- Develop/ enhance climate information systems and early warning mechanisms

- Review and harmonize existing policies and regulations that are dealing with climate change related impacts
- Mainstream win-win adaptation and mitigation strategies and actions through appropriate incentives
- Build capacity to develop, implement and monitor agricultural NAMA.
- Up-scaling best practices that enhance climate change adaptation and mitigation

### **Waste Management**

- Construction of controlled landfills and capacity-building for the operation of the landfills
- Processing of solid and liquid municipal and agricultural waste into energy and organic fertilizer
- Reduction in the generation of waste
- Composting
- Mechanical-biological treatment
- Disposal of waste in sanitary landfills

### **Energy**

- Promotion of renewable energy technologies
- Construction of biogas digesters
- Efficient lighting technologies
- Efficient firewood cooking stoves
- Increasing the efficiency in Electricity Supply Corporation of Malawi's capacity and energy balances
- Increasing the ethanol to petrol blending ratio
- Switching from paraffin (kerosene) lamps to photo-voltaic (PV) lamps

### **Land Use and Land Use Change and Forestry**

- Expanding the stand of trees and the pool of carbon in wood products
- Maintaining the existing stands of the trees and the proportion of forest products currently in use.

### **Industrial processes**

- Provision of regulation: permits to firms to operate depending on meeting environmental standards, so that failure to do so, results in financial or criminal penalties
- Voluntary engagement of programme regulators with firms so as to share and disseminate information and expertise interactively;
- Use of market-based instruments, such as the administration of taxes, tariffs and subsidies so as to shift the financial calculations of firms toward environmentally beneficial decisions

- Transparency: in public awareness campaigns on the dangers of pollutants and the reporting by firms of the pollutant discharged from their firms
- Information, education and public awareness campaigns on the risks of pollutants on human health and the environment.
- Industries that use carbon capture and storage
- Technologies that blend cement with rice husks
- Industries that use carbon dioxide (CO<sub>2</sub>) as a raw material,
- Industries that add value to lime via the Solvay process

### **Assumptions and Risks**

- International support will be made available in the form of capacity building, technologies and finance, to implement the NAMA.