

## **Climate Change and CDM Activities**

The Republic of Togo ratified the UN Framework Convention on Climate Change (UNFCCC) in 1995 and the Kyoto Protocol in 2004. The implementation of the UNFCCC took place in two phases from 1998 until 2001. In the first phase, a national committee on climate change was set up; a campaign was organised to extend awareness of the adverse effects of climate change on the National Plan; an inventory of greenhouse gas emissions was compiled as well as a study on vulnerability and adaptation; and the first National Communication was made to COP7 in Marrakech.

The second phase concentrated on reinforcing national capacities, for which a workshop was organised; on evaluating technological needs as well as compiling a list of priorities; and on drawing up a national strategy for implementing the UNFCCC. The project document for the Second Communication was drawn up at a workshop held in November 2005 and transmitted to the regional coordinating office in Dakar, Senegal. These activities were assisted financially and logistically by the Fund for Global Development, the UNFCCC Secretariat and the UNDP.

## **Criteria for Sustainable Development**

The criteria for sustainable development in Togo are still in the course of being defined in relation to other national strategies, plans and programmes. These in turn will determine the choice and evaluation of CDM projects. The principal ones are:

- The national strategy for implementing the UNFCCC
- The national action programme to combat desertification
- The action plan for the conservation of biodiversity
- The interim strategy document on reducing poverty
- The regional and local plans for managing the environment
- The administrative and legal rules
- The Agenda 21
- The objectives of the UN Millennium Goals for Development
- The follow-up document to the Millennium Goals

An approved CDM project will have to meet the requirements of these framework measures, but it will also be judged on its ability to reduce other pressures on the environment, reduce unemployment, augment the GDP, combat poverty at base population level, improve the quality of life, and revitalise employment and industry.

## **Constraints to CDM Adoption**

The barriers to adoption of the CDM in Togo are institutional, legal, technological and financial:

- The lack of a CDM administrative authority.
- Insufficient national expertise required for the conception, formulation and implementation of a CDM project, especially as regards quantifying the certified emission reductions.

- Inadequacy of the legislative and administrative framework.
- Limited awareness of the CDM amongst decision makers in the public and private sectors as well as the general public.
- The criteria for the choice and evaluation of CDM projects have not yet been agreed.
- Insufficient national expertise for studies of emission inventories, vulnerability and attenuation.
- Inadequate documentation in French language.
- Absence of an effective network for the exchange of information on methods and techniques with the relevant international organisations.
- Weak mobilisation of domestic capital for inaugurating projects.

### **National Stakeholders**

The government authorities involved are the Interministerial Committee and the various ministries: Environment and Forest Resources; Mines, Energy and Water; Transport; Health; Development; Economy, Finance and Privatisation; Communication and Public Education; Industry; and the authority for the regulation of the electricity sub-sector.

In the private sector there are the National Council of Employers; the society for the administration of the special fiscal industrial zone; the Petroleum Products Group; the Togo Group of Small and Medium-Sized Industries; the Togo Chamber of Commerce and Industry; the Chamber of Labour; the Bénin Electricity Community; and Togo Electricity. On the financial side there are the African Development Bank, the World Bank, the International Bank for Africa, and the Togo Development Bank, etc.

The universities in Togo are all potential participants in the CDM, especially the faculties of science, arts and law. Other higher education institutions include the academies of agriculture and applied biological technology.

Non-governmental organisations include Friends of the Earth; the Togo NGO Union (UONGTO); the NGO Consortium on the Environment (COMET); the African Network for the Protection of the Environment (RAPE); the International Centre of African Women for Development (CIFAD); the Association for the Protection of the Environment and Social Welfare (APEBES); and the Association for the Promotion of Childhood and the Environment (APEE).

### **CDM Potential in the Industrial and Energy Sectors**

In the land use and forestry sectors there is scope for CDM projects for carbon sequestration. Manufacturing industry contributed no more than 2% of total emissions in 1995, but here, too, there is some scope for CDM projects, not least as a means of importing cleaner modern technologies. The principal field of application for the CDM in Togo will, however, be in the energy sector.

The transport sub-sector consumes the greater part of the imported petroleum products and accounts for 11% of Togo's total energy consumption. A CDM project

to substitute biologically-based fuels (ethanol, etc.) for petrochemical products could help to achieve certified emission reductions.

Domestic households consumed 86.14% of total energy in 1995, predominantly firewood and other forms of biomass, with electricity accounting for only 2.3% of the whole. The actual volume consumed is rising steeply in step with the increasing size of the population, and will result in increased emissions of greenhouse gases. Togo's available forest resources will cover no more than half of the need for biomass energy by 2010, and by 2025 no more than a quarter. The recourse to petroleum and natural gas will intensify as a consequence. CDM projects in the domestic sub-sector will therefore have a particular importance for Togo, as will those involving forestation and reforestation.

Electricity generation and distribution, in particular for some of the new industries that have recently been established in Togo, involves the consumption of considerable quantities of fossil fuel with their concomitant emissions. The energy industry emitted 32.96 Gg greenhouse gas emissions in the base year 1995. Despite this very modest output, the sub-sector has a vast potential for relevant CDM projects.

The country also has 39 hydro-electric plants, of which 23 have potential for increased production. There is an obvious potential for solar energy projects, especially for rural electrification, with an estimated output of up to 4.5 KWh that remains considerably underdeveloped. The substitution of biogas for hydrocarbon fuels for electricity generation would also contribute to a reduction of emissions.

Urban and agricultural wastes emit mostly methane gas, estimated at 6.75 Gg in 1995, or 0.03% of total emissions. This contribution could increase in the future, which provides scope for utilising this potential source of energy for conversion to electricity, thereby reducing the pressure on forests and aiding the sequestration of carbon. The various options for CDM projects therefore include the following:

- Utilising the energy potential of organic industrial waste.
- Biomass energy for rural areas through forestation and reforestation.
- Decentralised photovoltaic electricity generation for rural areas.
- Small hydro-electric schemes.
- Development of research on new and renewable energy forms.
- Development of research on biological fuels.
- Conversion of thermal network electricity generation to gas.
- A proportion of network electricity generation from hydro power.
- Promotion of energy efficiency for household apparatus, etc.
- Use of heat exchangers in soap works, oil mills, bakeries, etc.
- Cogeneration from industrial waste.
- Generation from sugar cane and other vegetable waste.
- Carbon sequestration through forestation and reforestation.

## **Conclusions and Recommendations**

The Republic of Togo, in partnership with the international community, is fully committed to countering the adverse effects of climate change through implementing

the UNFCCC and the Kyoto Protocol. Its accession to the various international conventions, and its adoption of a National Strategy to this end, do however require reinforcement in order to develop Togo's institutional, human and technological capacities. The Clean Development Mechanism therefore provides a development tool as well as an opportunity to take advantage of the investment and technological assistance that are available from the developed country partners. To this end, Togo, together with its partners, will endeavour to remove the constraints to the implementation of the CDM and to implement the following recommendations:

- Reinforcement of institutional capacities by setting up the National CDM Authority and assuring its effective functioning.
- Reinforcement of national capacities for the conception, formulation and implementation of CDM projects.
- Reinforcement of national capacities for establishing a methodology for the selection and evaluation of CDM projects.
- Increasing awareness of the CDM and its opportunities amongst the various potential actors.
- Intensification of bilateral and multilateral cooperation towards reducing emissions of greenhouse gases by means of the CDM and support for development.
- Establishment of an active network for the exchange of technological and methodological information at regional and international level.
- Providing the relevant institutions with the logistical means for post-evaluation of CDM activities.
- Providing the French-speaking countries with French-language documents and practical guides in order to ensure the optimum exploitation of the Clean Development Mechanism.