

The Paris-Nairobi Climate Initiative

Clean energy for all in Africa and in countries most vulnerable to climate change



France and Kenya have held a Ministerial Conference in Paris, on 21 April 2011, initiating a high-level dialogue between ministers, representatives of multilateral and bilateral donors, business leaders and energy experts on the issues of clean energy.

The « Paris-Nairobi » Climate Initiative aims to :

- provide concrete solutions for clean energy access in developing countries in climate change negotiations, considering its links with their economies' adaptation to and mitigation of climate change and the need for a low-carbon development and the conservation of their forests;
- achieve the ambitious goal of universal access to energy by 2030, consistent with the recommendations of the United Nations Secretary-General's Advisory Group on Energy and Climate Change.

To do this, the Initiative intends to facilitate the flow of climate financing that will be allocated as fast-start funds by developing projects and proposing effective business models and beyond to develop sustainable generation, transmission and distribution systems in countries most vulnerable to climate change.



Access to energy, sustainable development

The objective of achieving universal access to modern energy services by 2030 must be addressed as an utmost priority by the international community to both fight against the extreme poverty and support the global effort to fight against climate change. Today :

- 2.7 billion people still rely on traditional biomass to meet their cooking needs. That figure could reach 2.8 billion in 2030;
- 1.4 billion people worldwide are lacking access to electricity, the vast majority in sub-Saharan Africa where the electrification rate does not exceed 30% on average and 12% in rural areas;
- without the implementation of specific measures, the number of people without access to electricity is expected to remain around 1.2 billion by 2030;
- the poorest population of the world pays energy among the most expensive, least effective and least sustainable.

The Paris-Nairobi Climate Initiative supports and is in line with the 2012 International Year of Sustainable Energy for All, the United Nations Secretary General's initiative Sustainable Energy for All and support energy-related processes linked to the Rio+20 Summit

Economic and social development and climate change mitigation and adaptation are intrinsically linked to access to clean energies

The key to energy security, to powering development and to avoiding catastrophic climate change lies in addressing the three issues simultaneously. A piecemeal approach to these issues has hindered progress on all three. In particular, meeting the climate challenge cannot, and should not, be accomplished in isolation. Clean energy (renewable energy, energy efficiency, CO₂ capture and storage, hybrid solutions) access holds the key for minimizing climate risks, reducing poverty, improving global health and meeting the Millennium Development Goals (MDGs). The commitment to energy access is essential to achieving North-South agreement on the major issues we face in the climate negotiations. Rapid progress towards sustainable energy for all can bring a po-

sitive input to the climate change negotiations, showing that embracing a green path presents economic and social opportunities. Partnerships are complementary to the negotiations and give them a concrete base.

Promote a value chain approach in order to provide energy services

Provide a safe, affordable and sustainable cooking

In Africa, most cooking is done with solid fuels (wood, charcoal and dung). Improved cook stoves considerably reduce the amount of fuel used, and reduce negative health impacts from smoke inhalation.

Energy services for rural development

Rural populations need access to energy for their vital needs but also for economic activities. Without modern energy services, poor populations cannot expand their productive activities. Conversely, without expanding productive activities, the poor cannot pay for energy.

Energy for productive activities and poles for economic growth

Providing energy services for productive activities in regional economic centres is a key to economic development, as well as to the success of energy programs.

Energy for sustainable cities

While more than half of Africans live in rural areas today, city dwellers are predicted to become the majority by 2025. Unplanned sprawling cities use as much as 10 times more energy per person than better planned cities.

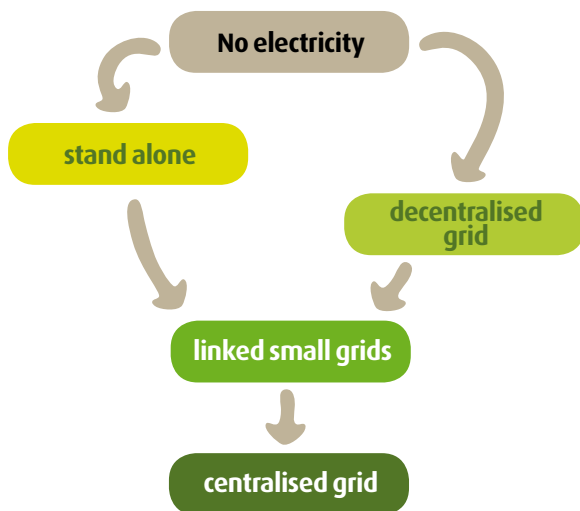
National and regional power grids

Large scale use of grid connected renewable energy sources, notably through regional power pools will allow a better allocation of resources.

Use public funding to enable business case

The development of sustainable business models is essential to the success and scaling up of projects. The Paris-Nairobi initiative intends to develop such business models. The projects should be defined by the developing countries members of the Initiative. Four main types of projects are suggested to be first considered.





Mini-grids at a community level

In many cases grid extension is often highly costly and unlikely to happen - even in the medium - to long-term. Mini-grids are in effect a return to the vision of Thomas Edison, who designed small, city-based power plants. When used in conjunction with renewable or hybrid systems, they can increase access to electricity. They can be a more cost-effective, reliable and sustainable mean of supplying power to rural communities, especially in populated isolated areas.

Peri-urban production facility

Rapid urbanization is expected to result in an increase in energy use. Typical activities of the average urban resident are usually more modern and energy-intensive than the activities of a rural resident. Characteristics of peri-urban areas such as good links to markets and services and ready supplies of labour, make them prime areas to benefit from access to electricity. People in urban areas where access to «free» energy sources such as wood, dung and leaves is limited, are willing to spend a significant proportion of their incomes on energy services. The main barrier to grid connection for a large proportion of peri-urban areas which are closer to rural areas in character is the dispersed location of households and farms making it difficult and uneconomic to connect them to the grid. In these areas stand alone systems are more likely to be viable options in the medium term.

Hybrid systems

Electrical energy requirements for many remote applications are too large to allow the cost-effective use of stand-alone or autonomous renewable energy generation technology. In these cases, it may prove more

feasible to combine several different types of power sources to form what is known as a «hybrid» system. Hybrid power systems range from small systems designed for one or several homes to very large ones for remote island grids or large communities. Hybrid power systems are seen as a way to provide power to the many remote communities in the developing world where the costs for large scale expansion of electrical grids is prohibitive and the transportation costs of diesel fuel are also very high.

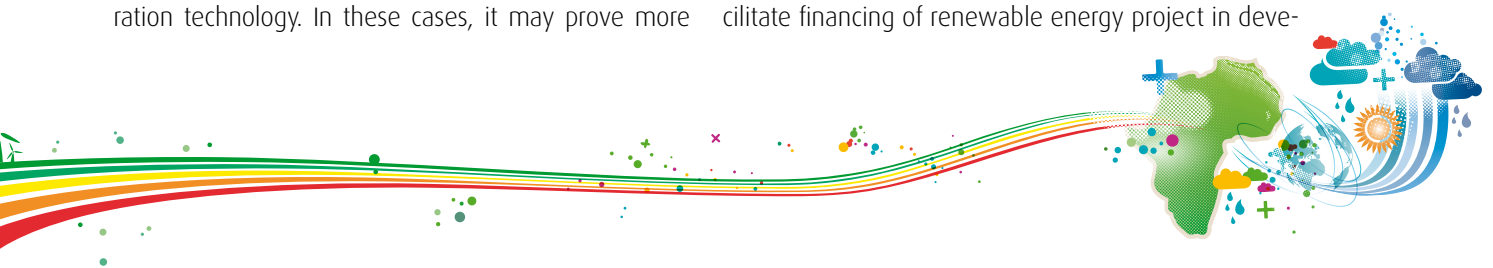
Private business models

Private entities, such as energy consuming businesses, might value at a higher price their energy security than what they actually pay for electricity. The private actor could carry the development and financing of a renewable energy production facility mainly for its own consumption. It could either: Release capacities that it was previously buying on the national grid - In that case, the fact that the energy utility loses a credit-worthy consumers needs to be addressed. Divide the energy production, keeping a share for its own consumption, and releasing a percentage of the production on the local or national grid according to the network configuration.

Financing access to clean energy for development

To ensure widespread access to electricity by 2030, 40 billion USD of additional investment per year would be needed. Faced with the overwhelming needs, it is essential to mobilize all available public and private funding, dedicated to the fight against climate change, development aid or the energy sector, and create new mechanisms for financing clean energy.

The Copenhagen and Cancun agreements expect a contribution of public financing from developed countries of approaching 30 billion USD over the 2010-2012 period and a mobilisation of all actors to reach 100 billion per year by 2020 of public and private financing, to fund balanced actions of adaptation and mitigation in developing countries, focusing on more specific needs of countries most vulnerable to climate change: the least developed countries, small islands and countries of Africa. To catalyze private sector investment, it is necessary to develop innovative risk guarantees to facilitate financing of renewable energy project in deve-





loping countries: partial risk guarantees (PRGs), grants or specific public funding such as facilities.

Key objectives

The international community should commit to three objectives:

- achieve universal access to modern energy services for social services and productive activities by 2030;
- aid all countries in building secure and reliable energy systems to power development and social progress;
- massively increase the use of local and renewable energy, to support access to energy improving both energy sustainability and security.

To go further...

A Franco-Kenyan expert group has drafted from October 2010 to January 2011 a White Paper on a strategy for access to 100% of the people to clean energy in Africa and countries most vulnerable to climate change by 2030 that can be found, both in French and English, on the website of the French Ministry of sustainable development. More information also available on the website:

www.developpement-durable.gouv.fr/paris-nairobi

Key actions

In order to achieve these objectives, the Paris-Nairobi Climate initiative is designed to build a bridge between development energy and climate policy. It will also bring together governance, capacity building and production capacity issues through action and results on the ground.

Through projects implementation, the Paris-Nairobi Climate Initiative intends to bring expertise and meaningful conclusions on best practices and share this experience in order to scale-up projects and replicate them. Identify and establish optimal national energy frameworks, including renewables:

- build human and institutional capacity;
- favor regional energy integration;
- achieve a steep change in investment in energy infrastructure creating guarantees, facilities, new and flexible mechanisms leveraging the private sector;
- build up and link international partnerships.

