



RE and Poverty Alleviation Workshops

Highlight Regional Needs
and Solutions

GNESD

GLOBAL NETWORK ON ENERGY FOR SUSTAINABLE DEVELOPMENT

Facilitated by UNEP

Highlight Regional Needs and S

RE and Poverty Alleviation

Sustainable and equitable development is one of the most important challenges, and a critical issue in the rural areas of developing countries. Decreasing dependence on fossil fuels, preserving forests and biodiversity, and protecting the natural environment are urgently needed for a sustainable world. Among issues of energy security and climate change, world attention is now focusing on greater use of renewable sources of energy and greater energy efficiency.

A portfolio of energy options are needed if poverty is to be reduced and the Millennium Development Goals (MDG) achieved. Renewable energy can form part of a holistic vision of development based on broader access to energy, improved living conditions, and the stimulation of income-generating activities.

The Global Network for Energy for Sustainable Development (GNESD) has been working for the past two years to improve the understanding of the role of renewable energy in reducing poverty. One of the key strengths of the GNESD is its ability to carry out common research in different regions of the world, which can provide useful lessons from the comparison of regional experiences.



Solar powered millet mill, Senegal

The Renewable Energy Technologies (RETs) Study:

The GNESD global study on the Renewable Energy Technologies (RETs) involved centres of excellence in Africa, Asia and Latin America where the Bariloche Foundation (FB) of Argentina, acted as the study's overall coordinator.

Phase I

During the first phase a general diagnosis of the renewable energy sector was made in different regions/countries, which helped identify potential niches where renewable energy could help to significantly reduce poverty through an improvement in the quality of life of households, as well as the development of productive activities that generate employment and extra income. The selected niches included treadle and wind pumps (East Africa); wind pumps, solar pumps and improved stoves (Tunisia); biodiesel and solar water heaters (South Africa); solar water heaters (Lebanon); solar water heaters and wind turbines (Argentina); vegetable oil and photovoltaic (Brazil); biomass gasification (China, Cambodia and India).

One fundamental result was the identification of problems limiting the use of renewable energy technologies and resources in developing countries, which also became the main input for the design of strategic policy.

In the policy area, Phase I only dealt with the formulation of policy outlines, but did not indicate the instruments and strategies to be used to reach the objectives.

Phase II

The second phase developed the general framework from the first phase, identifying fundamental technical knowledge and recommendations for concrete actions to overcome barriers and develop specific renewable niches through national/regional programmes. The clear message from the regional studies is that the way forward is to promote renewable energy as a means to alleviate poverty through activities that help households generate incomes.

Battery Bank for PV Systems





Regional Workshops

Under the common theme, "Renewable Energy and Poverty Alleviation", three regional workshops were held in South Asia, Africa and Latin America following the conclusion of GNESD's second phase RETs study. The United Nations Development Programme (UNDP) and the Renewable Energy and Energy Efficiency Partnership (REEEP) co-sponsored the workshops.



Silk cooking in India

Asia

India's Tata Energy and Resources Institute (TERI) and GNESD organised a South Asian Regional Workshop on 7-8 March 2007 in New Delhi, focusing on the theme "Productive uses of renewable energy in small and micro enterprises and livelihoods improvement through off-grid electrification." The workshop was attended by participants from India, Bangladesh, Sri Lanka, Bhutan, Maldives, Cambodia, Thailand and Nepal.

The Adviser to the Ministry of New and Renewable Energy, Government of India, inaugurated the meeting. In his speech he talked about the importance of RETs in the livelihood-generating sector and off grid rural electrification and discussed at length about the renewable energy programme in India especially the Village Energy Security Programme of the Government of India. He urged the participants to share country experiences and lessons learned in the renewable energy sector.

The technical sessions some key issue discussed included:

- The status of technology research South and South East Asia
- Development and deployment of RETs
- Adaptation of RETs
- Policies and regulations to integrate RE for productive use and livelihood generation
- Women's role in RE

In the general discussions many participants expressed their concerns about the lack of coordination at the inter-ministerial level and even within the energy sector itself which is one of the major barriers towards more extensive use of RE in the region.

Latin America

More than 150 participants attended the Latin American and Caribbean Workshop in Buenos Aires from 10 to 11 April 2007. Representatives came from Argentina, Bolivia, Brazil, Chile, Cuba, Ecuador, Guatemala, Mexico, Peru, Uruguay, and the Food and Agricultural Organisation (FAO).

Some key issues discussed included:

- The need for articulating energy and development policies, with specific policies that target low income families, particularly in the region's development of biofuels
- The advantages of employment generation and creation of technological niches
- The importance of complementing renewable energy projects with rational use of energy and efficiency measures, and improving access and quality of energy for urban poor
- The need to focus on proven technologies that promote productive activities
- The need to share experiences among Latin American countries and to foster local capacities, focusing on institutional aspects and policy formulation

Participants agreed on the influence of political will to implement suggested recommendations. Towards this aim, it was proposed to create a regional policy agenda on energy issues, particularly renewable energy.



Workshop in Argentina



Solar home system in Senegal

Africa

The African workshop was held in Dakar from 21 to 23 March, 2007 with seventy participants from various government ministries (energy, agriculture, environment, and development), electric power companies, the private sector, NGOs, financial institutions, institutions. Thirteen African countries (West, North, East and Southern Africa), three sub-regional organisations (African Development Bank, WAEMU, NEPAD) and four development partners (GTZ, UNEP, World Bank) were represented.

Participants discussed urgent and immediate sustainable development needs of African countries, including sustained economic growth, poverty alleviation and the MDGs. Articulating clean energy policies with local development and climate change adaptation strategies is another major challenge for Africa, including the transition away from energy systems based on conventional energy sources and the rational management of biomass resources.

On account of the international dynamics of bio-fuels and the potential of the region, specific recommendations were made to develop the bio-fuel sector, including:

- Creating regulatory frameworks including standards, and fiscal measures
- Diversifying production
- Increasing knowledge and technical skills
- Developing national infrastructures
- Matching food security with energy security
- Harmonizing agriculture and energy policies

Conclusions from the Regional Workshops

The common barriers identified in all the three regions are lack of finances and suitable policies, institutional weaknesses and capacity to operate and maintain RETs. The need for setting adequate standards and certification were also identified.

In Africa and Latin America the issue of bio-fuel got prominence. This is due to plans under serious consideration for cultivating energy crops on large scale by countries in the two regions. The general consensus was that the population with low income involved in small and marginal agricultural must be protected as far as food security is concerned and in order to do so the Governments must put in place the required policies and a strong regulatory regime before embarking on large scale energy crop plantation.

The common and important conclusion that emerged from the regional workshops is that RETs hold a vast untapped potential to help alleviate poverty, but they are restricted by a number of barriers. However, while these may be entrenched, they are perhaps not so formidable and can often be overcome with simple but dedicated policies or measures.

Workshop participants on a field visit in Senegal



Gasifier in India



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www.gnesd.org

gnesd@risoe.dk