



Federal Ministry
for Economic Cooperation
and Development

BMZ TOPICS 187

Development needs sustainable energy





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1. Sustainable energy for development



In the last few years, the world has seen a trend in the energy sector which would have been unimaginable even at the start of this millennium. Here are just a few of the major aspects of this trend:

- > Oil prices have quintupled since December 2001, while dwindling oil reserves are causing increasing concern among many industrialised and developing countries about future energy supplies.
- > Developing countries have discovered, often the hard way, that development without energy supplies is limited to nonexistent.
- > At the same time, the most rapidly growing countries, particularly China, are facing the question of how to satisfy their increasing demand for energy.
- > Energy generated from the combustion of oil and coal is increasingly falling into discredit as one of the main causes of climate change.
- > For these reasons, renewable energies are experiencing a boom, which is transforming them from a niche technology to a genuine source of hope for development and climate protection.

Renewables are taking over

High oil prices are hitting the poorest countries with no oil reserves of their own the hardest of all. At the start of 2008, oil prices broke the 100 dollar a barrel mark for the first time ever. In July 2008 the oil price peaked at over 145 US dollars a barrel, highlighting the growing urgency to find alternatives. Calls for the wide-scale use of renewables and for massive improvements in energy efficiency are increasingly falling on open ears around the globe.

The report by Sir Nicolas Stern, former chief economist at the World Bank, and the report from the Intergovernmental Panel on Climate Change (IPCC) make it unambiguously clear that climate change is taking place. Although we can no longer stop it, we can still slow it down significantly by taking decisive action to avoid the worst case scenario.

The main burden of responsibility for climate change rests undeniably on the shoulders of the industrialised countries, which are the main polluters. But all countries are now called on to act together, all the more so since the (welcome) process of economic development in some developing countries and transition states will further aggravate the problem, as growth is still being driven largely by fossil fuels. Thus, these countries too must be persuaded of the need to join forces; yet many of them will require external assistance.

Prospects for reducing poverty

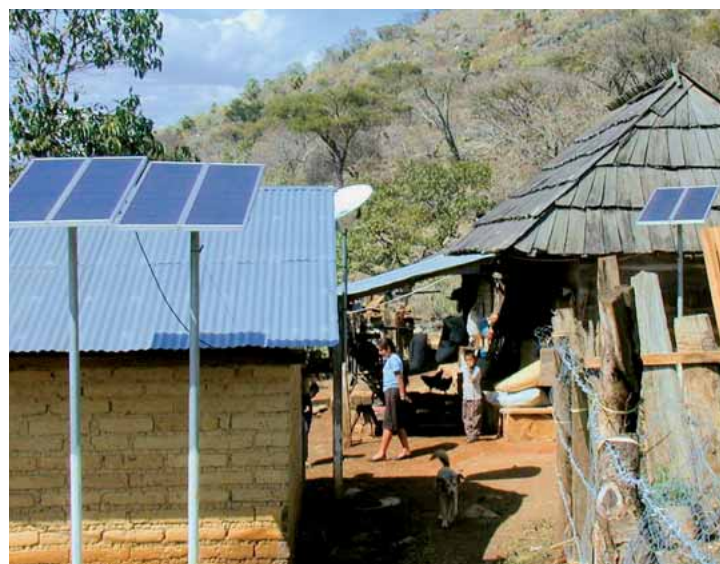
Access to energy services is an important precondition for meeting basic needs and for developing a modern economy. A smoothly functioning energy supply system is important for the stability of a country and its economy, and exerts a significant influence on the quality of the local and global environment. Energy is thus an indispensable element of efforts to

overcome poverty and to achieve the Millennium Development Goals (MDGs) adopted by the global community.

The Millennium Declaration

On 8 September 2000, the United Nations General Assembly adopted the Millennium Declaration, in which 189 governments committed themselves to a wide-ranging package of development goals. The central concerns are sustainable development and poverty reduction throughout the world. By 2015 the percentage of the world's population forced to live on less than one US dollar a day is to be halved.

Alongside primary education, primary health care, access to safe and affordable water and an elementary transport infrastructure, access to energy is one of the essential prerequisites for improving living and production conditions in developing countries.



Solar power can be a key to development for poor isolated villages.

Reducing dependence on imports

Renewable energies and enhanced energy efficiency can help a great many developing countries reduce their dependence on imported fossil fuels, and thus ease the financial burden caused by fluctuating prices on the world market. This will liberate funds that can then be used for urgently needed development measures.

Precondition for development

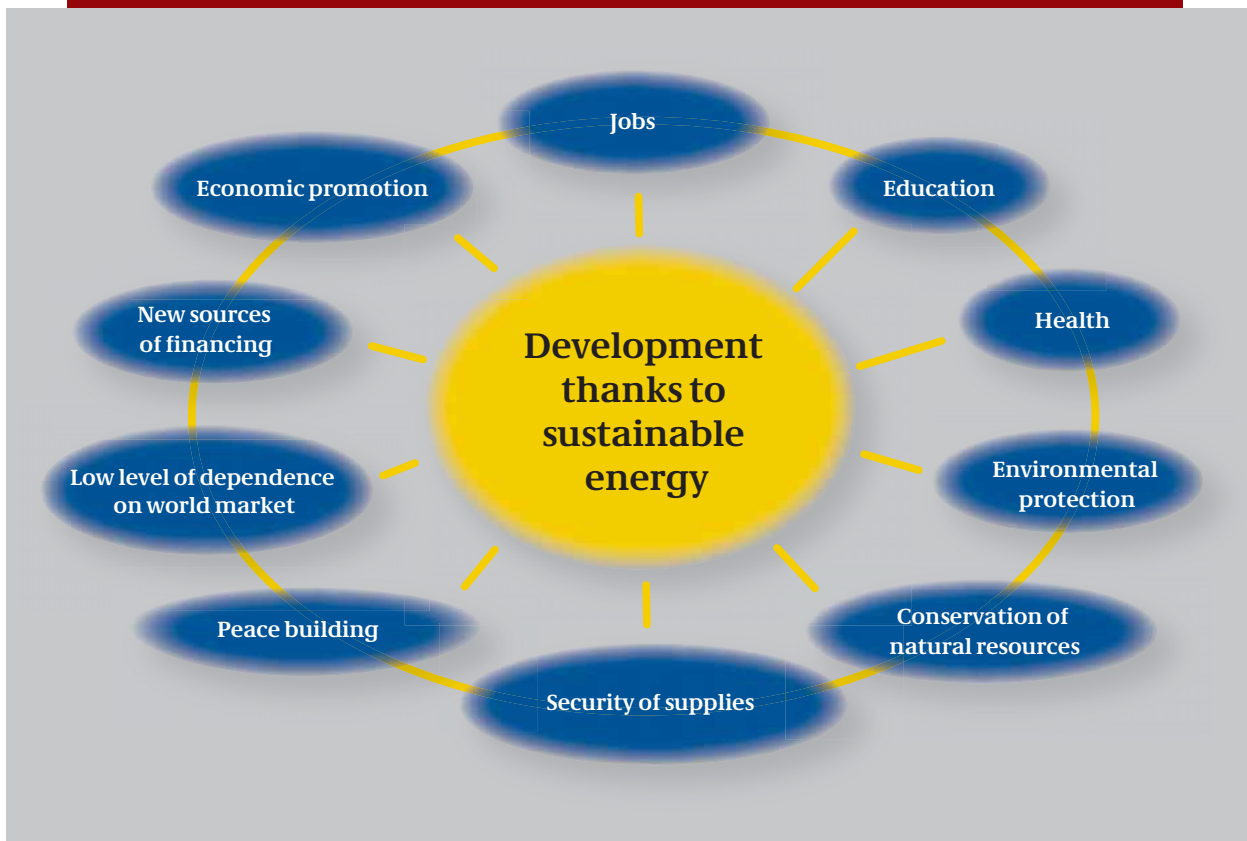
An adequate supply of energy is a central factor for economic and social development. To ensure that the economy can develop, generating jobs and income, we need energy. In almost every

aspect of everyday life energy is used – for cooking, for pumping water and for refrigerating essential drugs, to give but a few examples.

The poor in particular can and must benefit from access to modern energy. Renewable energies and technologies for improved energy efficiency offer great advantages, especially in developing countries. Renewable energies can be used at decentralised level, meaning that even isolated regions can be given access to an energy supply, and thus also to development.

The dwindling reserves of fossil fuels give us reason to fear that access to affordable energy will increasingly be a root cause of conflicts in future. Since renewable energies are available

Key to many facets of development: sustainable energy



almost everywhere, their development can help avoid conflicts and can go a long way towards mitigating what could become violent competition for the world's oil reserves.

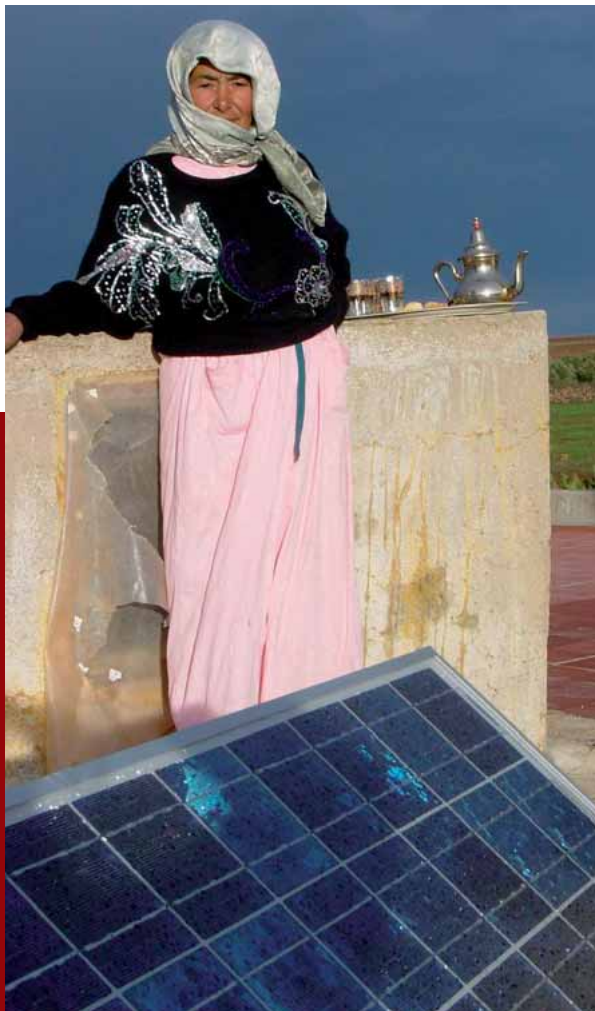
Rising demand

Energy policy around the globe is facing an enormous challenge. The human race continues to expand, as does its demand for food, goods and services. At the same time, a growing number of countries are managing to break out of the vicious circle of poverty and underdevelopment, with a concomitant rise in demand for energy. It is becoming more and more difficult to meet the demand for energy supplied mainly by fossil fuels. Experts expect oil prices to continue rising sharply. The price increases on the crude oil markets are already having dramatic impacts on oil-importing developing countries. The additional costs from these price increases

to the affected countries are higher than all of the official development assistance provided by the entire global community. For the poorest oil-importing countries, every US\$10 a barrel increase in oil price results in a 1.4 per cent loss in GDP (World Bank 2006). It is thus essential to find alternatives to oil.

Better supply and new sources of income

There is a close correlation between an inadequate supply of energy and poverty. More than two billion people have no direct access to modern energy for cooking and heating. Alongside fuelwood, these populations use batteries, candles and petroleum, which puts an enormous strain on their limited financial resources. Although the energy requirements of poor population groups are only about one kilowatt-hour per day, they frequently spend around one third of their income to buy this energy.



Renewable energies are in many instances a lower-cost alternative to conventional forms of energy. They offer people the chance to make better use of their limited income. At the same time, a connection to the national electricity grid opens up new production options and new sources of income for crafts and trades businesses and small enterprises.

The symptoms of the poor energy supply in many developing countries and emerging economies are many and varied. Large regions

are not connected up to the national electricity grid, which is a major obstacle to economic development in these areas. In many places the population is forced to meet its energy needs largely from naturally occurring biomass, especially wood. This has far-reaching consequences for their health and for the conservation of forests. Deforestation brings environmental problems on a massive scale with it, which in turn is an obstacle to development.



Access to modern sustainable energy prevents the negative impacts that gathering firewood can have on human health and the environment.

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