welt hunger hilfe

ENERGY

The issue of the future

Abstract

A reliable energy supply is the basis of both economic and social development (e.g. for communications and health care). Even today, 1.6 billion people have no access to electricity supply. Rural development needs energy, although increasing energy consumption still entails increasing greenhouse gas emissions. The local use of renewable energy sources must therefore be the main option in overcoming energy shortages in the context of pro-poor green growth. It is the key for combining economic and social development with environmental protection goals. Nevertheless, the cultivation of energy crops for export has so far brought more harm than good to poor populations in the countries of the South. The cultivation of energy plants is only legitimate if it can be proved to have no adverse consequences on the human right to food.

Around two billion people worldwide are dependent on firewood and charcoal as their main energy sources, above all in rural areas. Collecting and chopping wood can take several hours' work per day in arid rural regions. In Africa alone, almost half a million people – mostly women and girls – die annually from health problems caused by open fires in insufficiently ventilated rooms. A dramatic overuse of wood resources is taking place (particularly in arid areas and near cities) leading to soil erosion and the loss of water reserves (cf. Section 9 on land and Section 10 on water). An initial step to improving the situation would be to use wood and charcoal more efficiently. This is an important step because introducing new, preferably renewable energy sources is a long-term process. Introducing fuel-efficient stoves and regulating charcoal burning are important interim stages on the way to developing sustainable energy supplies for rural areas. Information and training on saving energy are also important. In regions where heating is needed, building insulation contributes to a rational use of energy.

Development requires energy – this also applies to rural areas. For economic growth, increasing energy consumption and rising greenhouse gas emissions are inevitable in developing countries for the foreseeable future (cf. Section 14 on climate change). Appropriate energy solutions based on existing technologies can help to combat poverty and hunger. They contribute to improving social services, the use of energy in households becomes more effective and healthier, transport costs are reduced and access to modern information and communications technologies improves.

Around 80 percent of household energy consumption in developing countries is used for cooking and lighting. Nevertheless it is important to expand modern, sustainable forms of local energy generation in rural areas to enable productive use. Agricultural production requires energy; post harvest activities, such as food processing, and the rural crafts also benefit from energy provision. In this way the feed-in or locally generated energy can be used to create value (cf. Section 2 on the economy).

Decentralized energy solutions are particularly interesting for rural areas. There are still huge areas without inter-regional energy supply networks (electricity, gas) available for the foreseeable future. Local, sustainable energy generation must make use of all the available potentials (water, sun, biomass, geothermal sources etc.) and determine the most suitable form of energy generation or the best energy mix. In this context, it is necessary to be aware that all modern forms of energy generation are complex and require expertise and trained personnel to operate them effectively.

At first sight, the idea of cultivating energy crops for agro-fuels in developing countries (as well) seemed appealing. Industrialised countries have a lively interest in the large-scale cultivation of energy crops in order to reduce their dependency on oil and to improve their CO_2 emissions. However, the contribution of agro-fuels to reducing CO_2 emissions is a controversial topic; change in land use – for example, deforestation of intact forests to cultivate energy crops – may result in a negative CO_2 balance (cf. Section 14 on climate change).

The rapid expansion of areas used for the large-scale cultivation of agro-fuel in the countries of the South is already causing con-

siderable damage. Firstly, this is due to the competition between the cultivation of energy plants and food crops. The issues of concern here are access to land and water, provision of labour and inputs such as fertiliser, pesticides and herbicides, but also state subsidy programmes, resources for research and finally capital. Secondly, the cultivation of fuel crops is dominated by industrialised agriculture. Small-scale farmers cannot compete and are driven out (cf. Sections 1 on agriculture, 9 on land and 10 on water). In this way, the cultivation of energy crops leads directly and indirectly to infringement of the human right to food. In addition, food prices are soaring – and the demand for energy crops is accelerating this trend.

Using energy locally can provide considerable increases in income. Ideally, the necessary biomass is a by-product (after harvest) or it is produced in small-scale cultivation and is appropriate to local conditions. It should on no account endanger the people's food security. The local population's use (such as making electricity or running combustion engines on vegetable oil) must have priority over energy exports. This type of solution is possible in a decentralised set-up and can often be developed from existing technologies. Key technologies such as fuel distillation must be developed and simplified. Biogas installations are currently proving very successful. They are fairly complicated to construct but do not compete with food cultivation in terms of area and hardly in terms of water. They not only produce energy; they also help to compost vegetable waste and /or animal dung to make better quality fertiliser. In this way, this technology can contribute to improving agricultural productivity.

Welthungerhilfe's involvement in relation to energy poverty in developing countries:

Promoting energy-saving measures such as energy-efficient ovens in households and commercial contexts.

Supporting the introduction of modern forms of energy generation, preferably renewable energy using adapted technologies (photovoltaics, small hydroelectric power stations, wind energy, biogas).

Promoting energy production by small-scale farmers if it is proved to increase the target groups' income, does not compete with the cultivation of food crops and is produced using sustainable cultivation methods.

Welthungerhilfe's demands in relation to energy poverty in developing countries:

Industrial countries must not impede global food security through their energy targets (estimating the consequences of policies). Developing countries must also give priority to the right to food and, if necessary, reject demands for bio-energy and bio-fuels.

Industrial countries must increase the technology transfer with developing countries. This includes training experts as well as research into and further development of locally adapted modern forms of energy generation and use.

The energy requirements of rural areas should be taken into account in developing countries in their state energy supply concepts – including in large-scale projects.

National standards and international agreements must ensure that the production of agro-fuels is socially, economically and ecologically justifiable. These should be mainly used locally and their cultivation must not infringe upon the human right to food.

Importing agricultural produce from developing countries, in particular energy plants, should only be acceptable if the production can be shown to be sufficiently social and ecologically satisfactory.

16/12

This section is an excerpt of the WHH Position Papier Rural Development. Please also consult all other sections at www.welthungerhilfe.org/position-paper-rural-development

Bonn/Berlin March 2012

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