

CLIMATE CHANGE

A global threat to rural development in the South

Abstract

Through its emissions (mainly of carbon dioxide, nitrogen oxides and methane), humanity is triggering a greenhouse gas effect which is causing long-term global warming. Climate change is threatening development chances of the rural poor, although their direct contribution to the causes is very small. Climate change is becoming a growing threat to rural populations. Some consequences can already be foreseen, such as reduced agricultural productivity, increasing risks of extreme weather events and the spread of new diseases affecting people, livestock and crops.

It is important therefore that developing countries take adaptive measures to retain agricultural production and increase the resilience particularly of the poorer sections of the population to climate change. International climate policy must shape climate mitigation and adaptation strategies in such a way that they contribute to reducing poverty and improve food security. Industrial nations, mainly responsible for global warming, should take on the obligation to bear most of the burden of reducing greenhouse gas emissions.

The impacts of climate change on rural development and agriculture will differ from region to region. A temperature rise of just one or two degrees Celsius causes a measurable increase of seasonal droughts in tropical and subtropical areas. Fluctuations in rainfall and more frequent extreme weather events are direct challenges for those affected. In the long run, increasing dryness particularly in arid areas means that the land must be used differently and certain areas will no longer be suitable for agriculture at all. Because most developing countries are located in tropical and subtropical regions, they are disproportionately affected by global climate change. In Africa, and in the high mountainous regions of Asia and South America, a considerable decline in agricultural yields is anticipated. In this context the issue of land use rights gains a new significance (cf. Section 9 on land).

The availability of water will be less in many locations, particularly in developing countries. It can already be foreseen that in

the near future, many more people will suffer water shortages and agricultural yields will decline. This gives even more importance to water-saving and water storage technologies such as terracing, rainwater harvesting, adapted irrigation systems and the regeneration of degraded areas. (Small-scale) farmers require special support in carrying out adaptations of this kind, because it is more difficult for them to raise capital compared to farmers in industrialised agriculture. Low incomes and limited investment potential lead to more severe climate change impacts on small-scale farmers than on large agricultural producers, who can survive a failed harvest much better.

Natural disasters hit the poorest people hardest because they are lacking resources to prevent disasters or to compensate for the losses. The number of extreme weather events is set to increase, so investments are required in early warning systems, improved and decentralised disaster prevention and comprehensive risk management. These systems must be established at the national level, to set up strategic food reserves, to expand and secure rural infrastructure, to adapt land, settlement and land-use planning and to construct technologically appropriate buildings. Provision of micro-insurances, particularly for crop failures, is also part of comprehensive risk management strategies (cf. Section 5 on microfinance).

The consequences of global warming for the spread of livestock and plant diseases have hardly been researched so far. For example, the tsetse fly as the carrier of sleeping sickness is a growing threat to domestic animals. The pathogens causing hoof and mouth disease also react to changes in temperature. In the context of plant diseases, the spread of pests into previously cooler regions is to be anticipated.

Diversified income structures reduce the risks caused by climate change. For this reason it is important to improve infrastructure, transport facilities, market access and energy supply. These factors improve the rural population's resilience (cf. Section 2 on the economy and Section 13 on energy). Climate change will lead to changes and a considerable reduction in biodiversity and also increases the probability of losing crop varieties or even

whole species of crops and cultivated plants (cf. Section 11 on agro biodiversity), so it is important to extend seed preservation and environmental protection activities (particularly of forests and coastal biotopes) in a socially acceptable way.

Certain diseases will spread due to climate change; for example, malaria-carrying mosquitoes may move into new regions or the incidence of cholera may increase if availability and quality of drinking water declines. Extending the health care systems and educational opportunities in rural areas are therefore also part of the needed adaptation to climate change. Curricula must be extended to include climate-relevant material as a matter of urgency. In many developing countries, further decentralisation seems to be advisable because this favours decision-making at the local level. The self-help capacity of rural populations contributes to their capacity to deal with the impacts of climate change (cf. Section 4 on social security, Section 7 on gender equality and Section 8 on civil society).

Agriculture makes a considerable contribution to greenhouse gas emissions worldwide. However, food security in developing countries must have priority over the reduction of emissions. Adaptation measures to climate change should be supported for social, technological and economic reasons. Site-specific agriculture can reduce emissions to a minimum in the context of climate smart agriculture (cf. Section 1 on agriculture).

The mitigation of climate change is primarily the task of industrialised countries, which have caused the lion's share of the emissions. This is a matter of fair burden sharing. There are only very limited opportunities for reducing greenhouse gas emissions in developing countries, which need scope for their own development. For technical and financial reasons, developing countries are dependent on technological support. It is expected that industrialised countries develop technologies for their own energy-efficient development and make them available globally (cf. Section 13 on energy).

Welthungerhilfe's involvement in relation to climate change:

Climate change is a crosscutting challenge for development programmes. A key strategy is to include climate proofing at an early stage of project planning.

Promoting climate adaptation measures in relation to agricultural techniques and practices, the rehabilitation of degraded areas and multiple resource protection measures.

Supporting local measures to improve the resilience to climate change of particularly vulnerable people in rural areas.

Supporting disaster risk reduction and disaster prevention, including local information and knowledge management (such as drawing up risk analyses and preparing prevention plans), setting up local early warning systems, establishing rescue teams and construction of protective buildings.

Promoting the participation of civil society organisations in national programmes for climate protection.

Welthungerhilfe's demands in relation to climate change:

The international target of restricting global warming to less than two degrees Celsius must be binding.

Industrialised countries must focus their climate-related support for developing countries more towards adaptation. Emissions reduction must take place mainly in industrialised countries.

Industrialised countries should use an additional 0.3 percent of the total GNP for climate protection. This money should be made available to developing countries for supporting adaptation to climate change.

Disaster risk reduction should be understood as an integrated principle of rural development.

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

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