



IN BRIEF...

Climate Change and Development

The impact of rising global temperatures includes longer droughts and a higher risk of natural disasters. The poorest people in the least developed countries are the hardest hit.

This is why Sida is tackling climate issues. The main line of policy is to cut emissions of greenhouse gases (GHGs). Improving people's capacity to adjust to climate change is also vital.

Sida's overarching objective is to reduce poverty – that is, to assist in creating optimal conditions that help poor people and countries in their struggle to reduce poverty. Since climate change hits the poor hardest and also causes new poverty, work to minimise GHG emissions is a high priority for Sida. Reducing poor people's vulnerability to climate change is therefore vital.

The main factor underlying the greenhouse effect is increased emissions from fossil-fuel combustion in the transport and energy sectors.

Temperature changes are making the weather more extreme, with longer dry spells and heavier precipitation. The polar ice caps are thawing and sea level is rising. In low-lying countries, valuable farmland may be submerged. Islands may disappear, and there is a risk of massive floods devastating large areas.

Sida's premise is that prevention is better than cure and the industrialised world, above all, must reduce its emissions. But the developing countries, too, must move in the right direction. Sida therefore seeks to help developing countries invest in technology that is environmentally and economically sustainable.

Sometimes, however, a cure is necessary: measures to mitigate the effects of climate change are called for. Sida contributes to the development of methods to prevent disasters caused by floods, hurricanes and droughts.

Knowledge of how climate change arises and what can be done to reduce GHG emissions must be integrated into all international development cooperation. Collaboration among various actors and across sector boundaries is required.

How Sida works

Since many areas are strategically important to combating the greenhouse effect, climate-policy work must permeate the whole of Sida's development cooperation.

Energy supply is a central development issue. Dialogue with Sweden's development partners is an important way to spread knowledge of sustainable technology and energy, and of how to use regulations to encourage individuals and businesses to use energy more efficiently. Instructing people about renewable energy sources is another priority.

Efficient transport services have a

major bearing on growth. But an expansion of traffic boosts GHG emissions. Sida's task is therefore to show how fuel and vehicle pricing affects people's choices and work for ample, good and low-cost public transport in the partner countries. Sida also supports establishment of alternative modes of transport.

In many partner countries, people's livelihood depends on agriculture, fishing and other natural-resource use. Climate change alters their basis for survival. Through research, Sida is supporting the development of new methods to ease adjustment to the new climate. Food security – local, national and global – is a crucial issue. Climate change means that the earth's water resources are being redistributed and the supply of clean drinking-water is dwindling in areas where water is already scarce. Since these facts must be taken into consideration in decisions on water resources, decision-makers in the partner countries' need access to climate researchers findings.

Ill-health is another major problem in many developing countries. When clean water is in short supply, diarrhoea and malnutrition are worsened. A warmer climate is also expected to cause insect-borne diseases, such as malaria, to spread in larger areas. Informing people of how climate change affects health is therefore vital.

Sida's global cooperation

The greenhouse effect is a global problem that affects us all. Most of the world's nations have therefore jointly resolved to work for a

reduction in GHG emissions. Sweden plays an active part in this work, and Sida obtains help from internationally negotiated conventions and tools.

In Rio de Janeiro in 1992, UN member nations signed a Climate Convention aimed at reducing atmospheric concentrations of GHGs to levels at which climate change ceases. All the signatory nations have undertaken to work for this objective, and the industrialised countries are mainly responsible for leading the way. The Kyoto Protocol, signed in 1997, is an initial step towards specifying how the targets are to be attained. Thirty-eight industrialised countries have undertaken, by 2012, to cut their GHG emissions by 5.2% of their 1990 levels.

Tools are available to help countries fulfil the Convention's objectives. They are based on the idea that efforts to cut GHG emissions should function as a market in which the emitters pay and those who invest in emission-reducing measures are rewarded. These tools are:

- **Emissions trading** – nations that do not fill their GHG emission quotas can sell their surpluses to other countries.

- **The Clean Development**

Mechanism – industrialised nations can invest in projects that reduce GHG emissions in the poor countries.

- **Joint implementation** – industrialised nations can invest in one another's emission-reducing measures.

- **Climate funds** – these pay for action to combat climate change.

Ratification of the Kyoto Protocol requires the signatures of at least 55 countries together accounting for at least 55% of the industrialised nations' total GHG emissions in 1990.

Sida's priorities

For results to be achieved in climate-policy work, coordination – with everyone pulling in the same direction – is essential. Research on climate change and sustainable technology is equally important. Sweden seeks to help build bridges from one research field to another, and between short-term and long-term measures, and to press for agreement in international negotiations.

Sweden also aims to strengthen the partner countries, to enable them to benefit from developing and producing ecoefficient energy. One objective is to induce foreign investors to cooperate with the developing countries.

There are many reasons for integrating the climate issue into international development cooperation. If the objective of eradicating poverty is to be realised, poor people's earnings must increase. But growth that results in climate change worsens the situation of people who depend on agriculture, clean water and good health to improve their lives.

People's immediate environment is affected by regional and global environmental conditions. Sida is therefore involved in efforts at every level, from local NGOs to international cooperation through the EU and UN.

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WORKINGS OF THE GREENHOUSE EFFECT

The natural greenhouse effect is a precondition for life on earth. Carbon dioxide (CO₂), methane and other GHGs have been present in the atmosphere for many millions of years, forming a blanket that prevents most of the sun's energy from being reflected back, out of the atmosphere. Without this blanket, the average temperature on earth's surface would be 20°C below that of today, making this planet uninhabitable by human beings. Millions of tonnes of CO₂ circulate annually in an environmental cycle between the atmosphere, the oceans and the earth's vegetation in a well-balanced system.

When 19th-century industrialisation boosted the combustion of fossil fuels,

atmospheric GHGs increased dramatically. Forest felling also releases CO₂. Researchers have found that the concentration of CO₂ in the atmosphere is rising by more than 10% every 20 years. Atmospheric methane has also increased since the 19th century, owing to farming, with large-scale rice cultivation and cattle herding; smoke from waste incineration; and leaks from coal mines and natural-gas facilities.

Together, these GHGs enhance what is a natural, life-sustaining process. With the enhanced greenhouse effect an even thicker blanket, which traps more solar energy within the earth's atmosphere, is formed. The temperature then rises – with major climate change as a result.

Halving poverty by 2015 is one of the greatest challenges of our time, requiring cooperation and sustainability. The partner countries are responsible for their own development. Sida provides resources and develops knowledge and expertise, making the world a richer place.



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