



GTZ: Three Steps to CO₂ Neutrality

Country:	Germany
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Climate protection worldwide – and at home

A major part of the work of Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ – German Technical Cooperation) is to advise partners in developing countries on the protection of the environment. Renewable energy, energy efficiency and climate protection are key issues. In accordance with its concept of sustainable development, GTZ Head Office has set itself an ambitious goal: CO₂ neutrality. To achieve this goal, the environmental management team has developed an innovative three-step strategy that aims to reduce the greenhouse gas emissions associated with GTZ operations to zero. The three steps are:

REDUCE

energy consumption and individual, motorised commuter travel

SUBSTITUTE

fossil fuels with renewables wherever possible

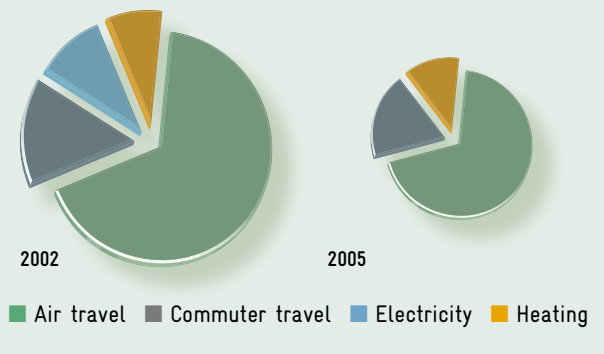
COMPENSATE

the remaining CO₂ emissions

In 2005, the 1,000 members of staff at GTZ Head Office generated around 11,000 tonnes of CO₂ emissions, of which some 7,400 tonnes were due to air travel. Compared to 2002, this is a reduction by 6,000 tonnes CO₂.

Development of CO₂ emissions at GTZ

Energy use for heating, daily commuting and air travel were the key sources of CO₂ emissions in 2005. Electricity has been switched completely to “green” renewable sources, and is thus no longer a CO₂ source.



The elements of the reduction strategy

Commuting

Cars used by individuals for commuting cause high CO₂ emissions. GTZ has thus launched two initiatives to motivate its employees to switch to alternative means of transportation.

- Since July 2003, the “Job Ticket” has enabled employees to use *local public transport at low cost* in the Rhine-Main area. In 2005, 660 tickets were issued to employees, equalling 67% of Head Office staff.
- “Bike & Business” is a scheme promoting *cycling to work*. Simple yet highly effective measures such as the provision of showers, lockers and bicycle racks are all part of GTZ’s mobility strategy, which won the “Business on the Move” award in 2004. A survey conducted in May 2005 found that 5% of staff cycle to work. In summer this proportion doubles, as evidenced by the level of participation in the “Bike to Work” campaign.

Business travel

GTZ staff are making much use of a video conferencing systems and technical facilities provided for telephone conferences. This is substituting a part of business travel.

Green procurement

All acquisitions of office equipment such as computers, printers, photocopiers and fax machines have to meet strict environmental performance specifications, particularly regarding their levels of energy consumption. This applies equally to the procurement of motor vehicles for projects worldwide.

Modern building services

GTZ continuously improves its building service systems in order to keep energy consumption as low as possible. Heating buildings caused around 11% of total CO₂ emissions in 2005. Modernisation of the main Head Office

building was completed in summer 2006. As a result of the excellent thermal insulation standards now achieved, it will likely be possible to *save 50% of heating energy*. The *air-conditioning scheme* of the building relies on innovative components such as the use of cool ground water and cold recovery from the air extracted from cooled rooms. Moreover, the building has modern lighting systems including *low-energy lamps* and high-efficiency switching. A further

step towards improved energy efficiency is the switch from electricity to gas in the Head Office canteen. The lift drives installed in 2003 deliver energy savings of about 40%.

Substitution of fossil electricity with green power



On 1 July 2003 GTZ Head Office switched completely to *power from 100% renewable sources*. GTZ is thus one of the largest companies in Germany to procure green power certified under the “ok power” labelling scheme. The “ok power” label guarantees additional benefit over and above regular power from renewable sources, which is already promoted in Germany. This step delivers savings of about 2,000 tonnes CO₂ every year.

Compensation

GTZ expects to be able to compensate the remaining CO₂ emissions – largely attributable to air travel – by means of a Kyoto Protocol mechanism from 2007 onwards. As GTZ’s principal activities are undertaken in developing countries, the *Clean Development Mechanism (CDM)* was chosen, which makes it possible to meet emissions reduction commitments in industrialised countries by reducing greenhouse gases in the developing world. To maximise transparency and verifiability, GTZ has opted for a CDM project which it developed itself in order to generate Certified Emission Reductions (CER) rather than buying anonymous emission certificates on the open market.

GTZ has identified and carefully appraised a suitable project in the palm oil industry in Thailand. An effluent treatment facility will capture the methane arising from the fermentation of palm oil fruit residues. The biogas will be used to supply heat to the factory. This GTZ compensation project not only prevents CO₂ emissions in line with the international CDM rules, it also fulfils the tighter specifications in terms of project type, additionality and sustainability set by the World Wide Fund for Nature (WWF) for CDM projects meeting the Gold Standard.



Generating energy from methane arising in a palm oil factory in Thailand delivers greenhouse gas reductions eligible under the CDM.

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