



ODS Banks Global Project

Management and destruction of ozone depleting substances

The challenge

Rising temperatures, urbanization and economic growth lead to an increasing demand of refrigeration and air conditioning appliances (RAC), especially in developing countries. Most of the old refrigerators and air conditioners still use refrigerants consisting of ozone depleting substances (ODS) such as hydrochlorofluorocarbons (HCFCs) with a very high global warming potential (GWP).

Due to the Montreal Protocol, production and consumption of ODS have been reduced successfully stepwise. However, the environmentally friendly management of so-called "ODS banks" (waste containing these substances such as old fridges, air conditioners, etc.) is not regulated by the Montreal Protocol and often not properly handled. As a consequence the substances are leaking from ODS banks into the environment; damaging the ozone layer and global climate.

Adequate collection, recovery and destruction of ODS banks is a real challenge for developing countries. Often they lack the institutional framework conditions, related waste management planning and infrastructure as well as specific technologies for ODS destruction.

Our approach

This project is part of the International Climate Initiative (IKI) of the Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU). It is the first global project on ODS waste management dedicated to the development and implementation of integrated strategies for reducing the emissions of ODS containing waste.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH supports selected cooperation countries in the five UN regions to develop an integrated approach for management and destruction of ODS.

Objective

The project aims at establishing policy framework conditions to set up national ODS banks management as well as technology cooperation in the partner countries. International regulations such as the Montreal Protocol, the Framework Convention on Climate Change and the Basel and Rotterdam Convention will be taken into account to develop national strategies and regional cooperation.

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Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany



As a first step, the project includes a detailed analysis of the current framework conditions in the five partner countries/regions, including legislation and policy instruments, (ODS) waste management infrastructure, planning and practices. This study will provide methods and instruments for the transfer of possible approaches to other countries and regions. Based on this, national roadmaps will be drafted, also taking into consideration technology and future capacity needs. This comprises the creation of reliable framework conditions, deployment of appropriate legal, economic, fiscal, information and educational instruments improving capacities for environmentally friendly management and destruction of ODS banks in the five regions.

The benefits

For the environment and the climate:

The development of framework conditions, transfer of good practice and technology for management and destruction of ODS banks will help to set up and improve the collection, recovery and destruction of ODS. It is estimated that the global warming potential of the world-wide existing ODS banks, predominantly¹ in developing countries, is about 16 – 18 GT CO₂ equivalent. The resulting annual emissions are estimated at over 2 GT CO₂ equivalent².

The selection of partner countries sees the willingness of participating countries to reduce at least 35% of their current emissions of the gases regulated in the Montreal Protocol as a prerequisite. Implementing all measures to full extent, the estimates suggest emission reductions of 2 million tonnes CO₂ equivalent per year and country.³

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For the economy and job market:

By participating in the project, technology providers and private sectors companies can position themselves in the partner countries and generate important references for future projects in the region and developing countries. The project provides for transfer of knowhow, qualified employment and capacity development in the management of ODS containing waste and treatment options. It will also contribute to formalization and qualification of workers in the field of waste management.

¹ ICF, 2010, Study on financing the destruction of unwanted ozone-depleting substances through the voluntary carbon market, p. 24

² UNEP, TEAP, 2009, Environmentally sound management of banks of ozone-depleting substances, p. 17

³ Based on the assumption of an average size of 30 million inhabitants and average emissions from existing ODS banks by approximately 0.2 t CO₂ equivalent per head and year.

Title Management and destruction of existing ozone depleting substances in ODS banks

Target countries Global

Objective Through the implementation of national strategies as well as regional and national cooperation projects, the partner countries shall achieve significant reductions in emissions of ODS banks with high GWP from installations, equipment, foams and products.

Target group National and international decision makers in energy, environment and waste sector (e.g. policy makers, NOUs, private companies, technology suppliers, consumers), technology providers.

Project Executing Organization German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)
Implementing partner organisation GIZ, environment ministries or ministries of industry and technology and their national ozone units in selected partner countries.

Project duration November 2013 – June 2021

Project budget EUR 4,500,000

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