Implementing country-specific solutions

Refrigeration Management Projects in Africa

Project Description

Since 1998, GTZ Proklima has started to assist the National Ozone Units (NOUs) of 17 African countries with meeting their CFC phase-out targets under the Montreal Protocol. A national Refrigerant Management Plan (RMP) has been developed and is being implemented for each country. These aim to gradually reduce CFC consumption to zero in the refrigeration and air conditioning sectors.
Each RMP comprises four main activities:

- Drafting of legislation and enforcement
- Training of customs officers
- Upgrading know-how and skills of trainers
- Training courses for local technicians from the maintenance sector

In some countries, the RMP also includes a project to establish recovery as well as an end-user programme to assist owners of ODS-based equipment to convert to alternatives.

Terminal Phase-out Management Plans

Subsequent to the RMPs, Terminal Phase-out Management Plans (TPMPs) were developed. Under a TPMP, a country receives funding for a full phase-out of CFC consumption.

Country-specific solutions for implementation

All RMPs have been based on an integrated approach that takes into account both national and regional aspects in order to minimise costs and maximise outputs.
In each of the partner countries, an individual needs-based strategy was pursued, with different stakeholders participating in developing the project, its activities and funding modalities. Initially the projects created an institutional framework (i.e. ODS regulations) which laid the foundations for the country's ability to monitor the trade in ODS. This was complemented by capacity building within customs departments, who are at the forefront of enforcing the regulations. In Namibia for example, the Ministry of Finance included ODS in their ASCUYDA++ system, the electronic database used by customs at all border posts of the country. Existing regional structures like the Southern African Customs Union (SACU), the Common Market of Eastern and Southern Africa (COMESA) and the South African Development Community (SADC) were also used to encourage harmonisation of ODS trade in the regions.

Montreal Protocol

In 1987 the Montreal Protocol (MP) was adopted by developing (A5) and developed (A2) countries in order to work towards the systematic elimination of ozone depleting substances (ODS). In 1990/1 the Multilateral Fund (MLF) for the implementation of the MP was set up with (financial) contributions from the industrialised member countries to provide financial support to developing countries. It is managed by the Executive Committee (ExCom) which is assisted by the Fund Secretariat.
The MP has four Implementing Agencies, the World Bank, UNDP, UNIDO and UNEP which assist A5 countries in their phase out efforts. In addition, A2 countries may contribute 20% of their contribution through bilateral projects.
The German Technical Cooperation (GTZ) works on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) and assists in achieving German development policy goals.

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On behalf of
Federal Ministry
for Economic Cooperation
and Development

The projects also emphasised the use of South-South cooperation, through which existing local/regional know-how is promoted and exchanged. Trainers from one country conducted training in other countries, bringing with them ideas and practices that could be readily applied. The South-South cooperation aspect ensures that the know-how developed remains based in and adapted to the region. It can thus be more readily accessed and utilised by those requiring it.
The needs-based approach meant that projects had to be flexible. For example, Mauritius wanted to address aspects of the Montreal Protocol along with those from the Kyoto Protocol. Its technicians were therefore trained in the use of long-term environmentally sustainable refrigerants like hydrocarbons. The project made it possible to conduct the required training in the country.

Sustainability

The sustainability of the project activities is ensured by means of

- Legislation: incorporating ODS regulations into the countries' existing environmental legislation
- Customs: the inclusion of ODS issues into the regular training curriculum of the customs department
- Ministry of Education: adoption and inclusion of 'best practice training' into the regular curricula for refrigeration courses at Vocational Training Centres throughout the relevant countries
- Environment: where possible, encouraging natural refrigerants as long-term alternatives

Project Impact

At the time of the approval of the first RMPs, all 17 countries combined consumed over 1,350 ODP tonnes of CFCs. Since then, consumption has been steadily reduced and the Multilateral Fund has approved the second phases (RMP updates) and some third phases (Terminal Phase out Management Plans) for the countries involved. By 2005, approximately 1,050 ODP tonnes had been avoided.
Lesotho, Mauritius and Namibia were the first Low Volume Consuming Countries (LVCs) in Africa to opt for a Terminal Phase out Management Plan (TPMP) and to commit to completely phasing out their ODS by 2008, 2 years ahead of the schedule specified by the Montreal Protocol. In reality, these three countries even achieved a complete ban on the importation of ODS as early as 2005, which is a great success for their national NOUs.
The implementation of the incentive scheme for commercial users of RAC systems made early possible conversions of equipment which would not have occurred otherwise, as the equipment was still in very good operational condition. Thus an additional reduction in ODS consumption was achieved.

Project Title Refrigerant Management Plans (RMPs) and Terminal ODS phase out Management Plans (TPMPs) in
Countries 17 African countries (Angola, Botswana, Ethiopia, Gambia, Kenya, Lesotho, Liberia, Malawi, Mozambique, Mauritius, Namibia, Seychelles, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe)
Sector Refrigeration and air conditioning sector
Objective Training of refrigeration mechanics in the domestic and commercial refrigeration repair sector
Target groups Refrigeration mechanics and technicians in the refrigeration sector;
Stakeholders in the refrigeration and air-conditioning sector
Implementing Partner Organisations Germany (GTZ PROKLIMA) and France (Agence Française de Développement)
National Ozone Units
Project Duration The numerous projects have different start and completion dates, ranging between 1998 and 2010.
Project Budget Approved project costs for all 17 countries amounted to US$ 4,839,463.
Impact on ODS Baseline: 1,350 tonnes of ODP. Phase out by 2005: approx. 1,050 ODP tonnes.

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