

Detailed Case study information

Lifecycle refrigerant management

Description	The activity was implemented by the GIZ project Proklima, a long-standing global programme promoting environmentally sustainable cooling solutions since 1995 (currently running until 2026 with an open-ended extension). They collaborated with the National Ozone Unit of Colombia (UTO Colombia) and were funded by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment (BMU). It formed part of a broader project on the management and destruction of ozone-depleting substances contained in existing equipment (“ODS banks”). In November 2019, the project supported the installation of specialized degassing equipment in Colombia to improve the environmentally sound management of discarded domestic refrigerators. The initiative focused on enabling the safe recovery of refrigerants and oils from old appliances, which are often improperly handled and can lead to significant emissions of ozone-depleting substances and greenhouse gases. The equipment was installed in two waste management plants operated by RED VERDE, the national system responsible for the collection and treatment of end-of-life refrigerators. The intervention aimed to strengthen technical capacity and introduce safer, more efficient dismantling processes within Colombia’s waste management sector.
Achievements	The project successfully installed two degassing machines, marking the first equipment of this kind available in Colombia. These machines were integrated into two waste management facilities, significantly upgrading their technical capabilities for handling end-of-life refrigeration equipment. To ensure proper use and sustainability of the technology, the project conducted two dedicated three-day training sessions covering installation, commissioning, and operation of the equipment. As a result, more than ten operators from the partner facilities were trained, building local expertise in safe refrigerant recovery. The initiative also strengthened collaboration between key stakeholders, including RED VERDE, the National Ozone Unit, and technical service providers, ensuring coordinated implementation and knowledge transfer.
Benefits	The installation of degassing equipment has significantly improved the safety and efficiency of refrigerant recovery processes in Colombia. By enabling controlled extraction of refrigerant gases and oils, the project reduces the risk of harmful emissions during the dismantling of old refrigerators. This contributes directly to climate protection and ozone layer preservation by preventing the release of high-impact substances into the atmosphere. At the same time, the improved processes enhance occupational safety for workers involved in waste management. In addition, the project strengthens the overall capacity of Colombia’s waste management system by introducing modern technologies and building technical expertise. This helps establish more sustainable and environmentally responsible practices for handling end-of-life appliances.
Next steps	The next steps focused on scaling up the use of degassing technology and expanding infrastructure across additional waste management facilities in Colombia. Further capacity building and training programs were to be implemented to strengthen technical skills and ensure long-term sustainability. In parallel, efforts aimed to reinforce policy frameworks and national strategies for managing ozone-depleting substances, with continued support to international cooperation under the Montreal Protocol.
Source	Recovering refrigerants properly - GIZ Proklima

