STOCKHOLM CONVENTION

SUCCESS STORY #10

WORKING WITH ELECTRICITY COMPANIES IN SOUTHERN AFRICA TO PREVENT ILLEGAL AND DANGEROUS USE OF OIL

Building partnerships and learning from best practice vital to grassroots success

A significant amount of infrastructure across the world requires the replacement of outdated equipment that is now considered dangerous both to human health and the environment, which also contributes to managing chemicals and wastes under the Basel, Rotterdam and Stockholm (BRS) Conventions. A striking example of this comes in the form of electricity transformers and capacitors, many of which contain oil that is polychlorinated biphenyl (PCB)-contaminated, and therefore to be eliminated under the Stockholm Convention on Persistent Organic Pollutants (POPs).

In the SADC region, efforts have been made, through the Global Environment Facility (GEF) funding, to eliminate PCB in electrical components such as transformers and capacitors. The project, which is executed through the Basel Convention Regional Centre in South Africa (BCRC South Africa), is undertaken in 12 countries. The overall goal is that participating countries become PCB-free. In addition, should the project not yield a PCB-free environment in these countries, they will, as an outcome of the project, develop a phase-out plan in compliance with the Stockholm Convention. UNEP is the implementing agency for this project with BCRC-South Africa as the executing agency; it commenced in 2016.

There is much evidence that contaminated transformer oils are not being disposed of in an environmentally sound manner. The oil is being illegally sold for a variety of purposes, including for cooking food, as well as therapeutic massage oil for arthritis, and even as an aid to recovery from pneumonia. Needless to say, these uses - and even others much more benign - pose grave threats to the ordinary consumer.

The first step was to compile an inventory of the number of transformers that could be labelled as suspect, many of which

dated back to the 1960s. These would have their oils sampled and tested for PCB-contamination. All contaminated oils were then to be collected and shipped out for PCB destruction.

But even this primary phase was not without its difficulties. In accordance with the project document, the project targeted the removal of approximately 4,000 tons of PCB. The first phase of the inventory, however, yielded significantly less than this set target and a process is underway to dispose of the identified contaminated equipment. The less than expected quantities collected necessitated a second phase of inventorying, to ensure that all contamination is identified and cleared. Included in the strategy for this second phase is increasing the involvement of the utility companies, who are the custodians of the electrical equipment that are the subject of investigation in this project. To this end, utility companies have been engaged and their commitment to support the project secured. They will also play a pivotal role in helping countries develop phase-out plans.

The project has had several successes. These include the identification of some quantities of PCB-contaminated equipment for disposal and initiation of efforts to remove this equipment. A tender has been issued to procure a service provider for the disposal of the identified quantities. Another notable success includes a study that was conducted with all participating countries, to establish the extent of the existence of legal frameworks to implement the Stockholm Convention. The project has also resulted in the development, by each of country, of an awareness strategy. When implemented, the strategy will result in a better informed and vigilant public, and will greatly reduce the dangerous uses of the PCB contaminated oils, among others. This will minimize the deleterious effects of PCB in humans and thereby enhance human health.

Several lessons have also been learned. There was little in the way of after-care for many of the defunct transformers - 'carcasses' - that were now in the process of being earmarked for replacement. Many of them vanished, almost certainly sold on the black market for non-environmentally sound purposes. Through the intervention of the executing agency, the BCRC-South Africa, participating countries have now signed pledges to safeguard stockpiles and prevent their disappearance. This will bring greater integrity to the data gathered about the stockpiles and will help the project achieve its set objectives of successfully and completely eliminating PCBs in participating countries. The sound management of transformer stockpiles has therefore become a priority for future projects, as well as full engagement with national governments on the overall decommissioning process.

The project has made significant strides and is on course to achieving its set objectives. An added benefit is the experience for BCRC-South Africa in managing complex, multi-country and multi-stakeholder projects, all of bring their own challenges. The success of the project therefore is a major victory for the regional centre, increasing its expertise and capacity to support Parties in the future.

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