



Pesticide management in the Caribbean

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Inspecting obsolete pesticides stocks in Trinidad and Tobago.

“The Disposal of Obsolete Pesticides including persistent organic pollutants (POPs), Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean” is a project designed in collaboration with national Caribbean regulatory authorities, and is coordinated by the Coordinating Group of Pesticide Control Boards of the Caribbean (CGPC).

Jointly funded by the Global Environment Facility (GEF) and several co-finance partners, the project is being executed by the Food and Agriculture Organization of the United Nations (FAO) in 11 Caribbean countries: **Antigua and Barbuda, Barbados, Dominica, Dominican Republic, Guyana, Jamaica, St. Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.**

KEY FACTS

- ▶ The Caribbean region had more than 300 tonnes of deteriorating obsolete pesticides stocks, which have been safely removed from eleven project countries and disposed of by FAO.
- ▶ Pesticide-contaminated sites in several Caribbean countries have been identified and may need remediation.
- ▶ There are no official systems in place in the Caribbean for the collection and proper disposal of empty pesticides containers.
- ▶ Most countries in the region have Pesticides Regulatory Authorities, that operate under outdated legislation and minimal funding.
- ▶ In the Caribbean, Highly Hazardous Pesticides (HHPs) have been used by farmers for the management of agricultural pests and diseases. Alternatives to chemical pesticides are poorly documented and not readily available to farmers.

The implementation of the four-year project began in May 2016 and is anticipated to end in April 2020.

Pesticides that can no longer be used for any purpose are obsolete, dangerous toxic waste. Often, stockpiles of such pesticides are poorly stored, and toxic chemicals leak into the environment turning potentially fertile soil into hazardous wasteland. A regional inventory conducted between 2011 and 2015 revealed more than 300 tonnes of obsolete stocks

located in farm stores and other sites, in deteriorating containers and conditions. Under the project, 319 tonnes of these obsolete stocks were repackaged, safeguarded and exported to the United Kingdom where they were disposed of by high temperature incineration, eliminating the risk of further human or environmental exposure. Participating countries have been presented with Certificates of Disposal. As the project continues, it will also seek to field test and share strategies for remediating contaminated soil/sites.

Discarded pesticide containers also pose a serious threat, as they are often used to store food or water in developing countries. FAO's Programme on the Prevention and Disposal of Obsolete Pesticides assists these countries to deal with such toxic containers. The project is using global and national experiences elsewhere, to provide viable strategies and Options for the management of empty pesticide containers in the Caribbean.

A majority of the smaller Caribbean territories (and some bigger ones) do not have the capacity to evaluate applications to register pesticides products. The processing time for applications can range from months to years and is a sore point for applicants. An option is regionally harmonized evaluation of pesticide registration applications resulting in registration or non-registration based on the recommendations of a technical committee to national regulatory authorities. Even after products are registered for use in countries, inspectors and border authorities are unable to detect contraband, resulting in illegal products in circulation and for sale.



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Top: Empty pesticides containers in Guyana. Bottom: Dr. Lystra Fletcher-Paul, FAO Subregional Coordinator for the Caribbean presents Certificates of Disposal to Hon. Ezechiel Joseph, Minister of Agriculture, Fisheries, Physical Planning, Natural Resources and Co-operatives, Saint Lucia (left) and Hon. Arthur Nibbs, Minister of Agriculture, Lands, Fisheries & Barbuda Affairs, Antigua and Barbuda (right).

Safe disposal of obsolete pesticides in the Caribbean

The project addresses these issues by 1) promoting the use of the FAO Pesticides Registration Toolkit; 2) conducting a regional “training of trainers” workshop, in collaboration with CARICOM, for customs officers and pesticides inspectors on import / export control, which is being rolled out at the national level; and, 3) promoting quality assurance by the independent testing of samples collected as a result of such inspections.

Most farmers in the region choose highly toxic chemical pesticides as the first line of defence against pests and diseases. Some of these products fall into the HHPs category, as defined by the FAO and the World Health Organization (WHO). These products need to be removed from the region’s list of registered products so they do not pose a threat to human and environmental health. Environmentally friendly alternatives to chemical pesticides do exist and some have been tested. Others have to be tested using demonstrations or the farmer field school (FFS) approach, which has successfully gained a foothold in the region. Alternatives are not always readily available and the project will facilitate relevant activities in the beneficiary countries.

Since most regulatory authorities operate without access to adequate budgetary allocations, participation at regional annual CGPC meetings is usually funded by international donor / partner organizations. The project will recommend ways for regulatory authorities to be more relevant, generate revenue and become self-sustainable.

Priorities, specific objectives and activities

1. Safe Disposal of POPs and other obsolete pesticides and PCBs:
 - between July 2016 and October 2017, 319 tonnes of obsolete pesticides stocks removed from project countries and disposed of in the United Kingdom by for environmentally-sound high temperature incineration. Project countries were presented with official Certificates of Disposal;
 - FAO working with regulatory authorities to prevent future build-up of obsolete pesticides stocks.
2. Technology Transfer of methodologies for identification and remediation of contaminated sites:
 - regional capacity will be improved to identify, characterize and remediate contaminated sites;
 - six countries reported potential pesticides-contaminated sites. Preliminary investigations and sampling at sites began in February 2017;
 - regional strategies and locally available technologies and tools will be developed to identify, characterize and remediate contaminated sites and become incorporated into environmental management plans (EMPs) for specific sites;
 - appropriate remediation strategies will be demonstrated at two high priority pilot sites.
3. Development of systems to manage empty pesticides containers:
 - information on quantities and types of pesticides containers imported submitted by project countries;
 - container management networks will be established and pesticides user practices will be improved.
4. Strengthening the regulatory framework and institutional capacity for sound management of pesticides in project countries
 - model harmonized regulations will be provided for national review and adoption;
 - regionally harmonized pesticide registration mechanisms will be developed and piloted;
 - common system for inspection and control of imported pesticides will be established to reduce illegal trafficking of pesticides and POPs;
 - joint Training of Trainers (ToT) of Customs Officials and Pesticides Inspectors on Pesticides Import and Export Control and Multilateral Environmental Agreements (MEAs), took place in Saint Lucia in March 2017;
 - sustainable financing will be identified and committed for regional pesticide life cycle management.
5. Promotion of alternatives to chemical pesticides
 - a regional plan for use and risk reduction of HHPs will be developed;
 - alternatives to HHPs will be field tested and demonstrated;
 - integrated Pest Management (IPM) will be promoted to farmers and home gardeners to reduce HHP use.

Project partners and linkages to other projects

Along with the CGPC, GEF and the participating countries who provide in-kind co-finance for project activities, the Inter-American Institute for Cooperation on Agriculture (IICA), provides the Secretariat for the CGPC and collaborates with FAO on project implementation. The Secretariat of the Caribbean Community (CARICOM) and the Caribbean Agricultural Health and Food Safety Agency (CAHFSA) provide support for the implementation of Multilateral Environmental Agreements (MEAs) and the harmonization of legislation and regulations; the University of the West Indies (UWI) support testing of alternatives to toxic chemical pesticides, pesticides contaminated soil remediation and IPM.

The project is linked to three projects (two are funded by the European Union (EU)), as follows:

The project Capacity Building related to Multilateral Environmental Agreements in African, Caribbean and Pacific countries (ACP/MEAs-1) (2007–2012) which supported regional MEA hubs and the implementation of specific MEAs. FAO executed the subcomponent “The clean-up of obsolete pesticides, pesticides management and sustainable pest management”.

The second phase (ACP/MEAs-2) (2013–2017) builds on ACP/MEAs-1, with an expanded scope to additional MEAs, notably the Convention on Biological Diversity (CBD) and the Minamata Convention on Mercury. It intends to strengthen institutional and national capacity for the synergistic implementation of target MEA clusters (chemicals/wastes and biodiversity) in ACP countries, and assist them in meeting the MEAs objectives.

The project Development and Implementation of a Sustainable Management Mechanism for POPs in the Caribbean (2015–2020) is being implemented by the Basel Convention Regional Center (BCRC - Trinidad and Tobago) and the United Nations Industrial Development Organization (UNIDO). FAO will help with the environmentally-sound disposal of 20.41 tonnes of Polychlorinated Biphenyls (PCBs)-contaminated equipment and 16.15 tonnes of PCBs-contaminated oil from Antigua and Barbuda, Barbados, Trinidad and Tobago and Suriname.



Pesticide-contaminated site in St. Kitts.

FAO and pesticides management

The Plant Production and Protection Division (AGP) of FAO considers reduced reliance on pesticides as a main element of Sustainable Production Intensification and Pesticide Risk Reduction. IPM programmes have demonstrated that pesticide use can often be reduced considerably without affecting yields or farmer profits.

Pesticide risk reduction is further achieved through judicious selection of pesticides and proper pesticide management: promoting the implementation of the new International Code of Conduct on Pesticide Management and providing the Secretariat for the Rotterdam Convention for the part that concerns pesticides.

The International Code of Conduct on Pesticide Management is a voluntary framework endorsed by FAO Members, and supported by key pesticide industry associations and civil society organizations. It complements legally binding instruments such as the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and voluntary mechanisms such as the Strategic Approach to International Chemicals Management (SAICM).

FAO's Subregional Office for the Caribbean (SLC) remains committed to collaborating with the CGPC and partner agencies to ensure that anticipated outputs are fully met and the Caribbean becomes another shining example of what individuals and organizations can achieve, working together towards common goals and objectives.

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