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The International POPs Elimination Project

*Fostering Active and Effective Civil Society Participation in
Preparation for Implementation of the Stockholm Convention*

Country Situation Report on POPs in Togo



Obsolete pesticides, CRAFT
store, Photo PAN Togo, 2006



Wastes incinerator, Lome-
Togo
Photo : PAN Togo, 2006



PCB facilities, Lome, Togo
Photo : PAN Togo, 2006

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About the International POPs Elimination Project

On May 1, 2004, the International POPs Elimination Network (IPEN <http://www.ipen.org>) began a global NGO project called the International POPs Elimination Project (IPEP) in partnership with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP). The Global Environment Facility (GEF) provided core funding for the project.

IPEP has three principal objectives:

Encourage and enable NGOs in 40 developing and transitional countries to engage in activities that provide concrete and immediate contributions to country efforts in preparing for the implementation of the Stockholm Convention;

Enhance the skills and knowledge of NGOs to help build their capacity as effective stakeholders in the Convention implementation process;

Help establish regional and national NGO coordination and capacity in all regions of the world in support of longer term efforts to achieve chemical safety.

IPEP will support preparation of reports on country situation, hotspots, policy briefs, and regional activities. Three principal types of activities will be supported by IPEP: participation in the National Implementation Plan, training and awareness workshops, and public information and awareness campaigns.

For more information, please see <http://www.ipen.org>

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This report is available in the following languages: summary in English and full report in French

Country Situation Report on POPs in Togo

SUMMARY

A preliminary inventory of Persistent Organic Pollutants (POPs) was carried out in Togo in the framework of Stockholm Convention implementation. This inventory showed that only one POP was found among the obsolete pesticide stocks. This consisted of 14 litres of dieldrin. The study already mentioned that “the unrecorded stocks of the informal sector” had not been taken into account. The small-scale market also includes other sectors like fishing, market-gardening etc., which involves pollution of rivers. Trans-border transfers are also not easy to monitor”. Further investigation is recommended, involving populations’ participation, in order to have a better understanding of the pesticide issue in Togo. However, other sites that could probably be contaminated have not been visited during the inventory, which implies that the investigation is not very complete.

We need to deal with the gaps in the study and investigate at all levels (Government bodies, farmers and informal sector) in order to have a better idea of the POPs issue in Togo and recommend adequate solutions.

1. Methodology

1.1. General methodology

The following methodology was implemented for the field study.

- a. Bibliographical research. Review of existing documents and reports in order to collect information on the context and topic. This helped elaborate several questionnaires.
- b. Setting-up of 5 regional working groups to deal with the following aspects: sociological and anthropological research, Collection of legal and normative data and evaluation of health and environment impact.
- c. Field visits and interviews
 - Visits to phytosanitary products stores, storage and distribution sites (public, semi-public and private) in all economic regions.
 - Interview with officials in charge of controlling phytosanitary products at frontiers, Head of Phytosanitary control, storekeepers and pesticide users.
 - Visits to health care facilities (health services dealing with onchocerciasis (river blindness), Hygiene & Sanitation).
 - Visits to the Togolese electricity and water Company.
 - Visits to unofficial incineration sites and hospital waste collectors.
 - Field interviews.
- d. Drafting of partial reports for each group.
- e. Internal debriefing and report validation meetings.
- f. Provisional document sent to an external committee and other experts involved in the Togo POPs project.

g. Internal meeting of the restricted committee in order to validate the report.

1.2. Specific methodology used for the market-gardening sector

This was based on a series of investigations aimed at evaluating the producers' perception of the risks related to the use of chemical pesticides on vegetables.

1.2.1. Sample description

Three sample groups were established for the evaluation in the market gardening sector. One of the groups was made of producers and the two other ones of distributors.

- ✓ The group of producers included 200 farm owners in theory, but 217 farmers were finally contacted.
- ✓ The distributors group included 20 companies involved in the sale of pesticides in Togo.

1.2.2. Field investigations

The questionnaires were used to collect data on the field. The questions for the market gardening sector were related to the following aspects:

- Identity of the interviewed person
- Types of vegetables produced
- Types of pests and diseases
- Control methods
- Opinion of the interviewed person about pesticides.

The investigations carried out among the distributors were aimed at collecting information about their profile and the supply and sale of pesticides in Togo.

2. Study results

2.1. POPs presence, production and use POP Pesticides

- None of the Annex A pesticides has ever been produced in Togo or used in a manufacturing process. However many of the substances, including Aldrin, Chlordane, Dieldrin, Endrin and Heptachlor, have been used in the agricultural sector (commercial crops production and cattle breeding) and for public hygiene (termite control or disease control).
- However, XYLOGIL, which is made of Lindane, Aldrin and an undetermined amount of other active substances, is currently being officially imported, distributed and used for the treatment of wood. This is an issue because Aldrin is on the Stockholm Convention list and Lindane has been nominated for inclusion in the Convention by Mexico and declared to be a POP by the POPs Review Committee.
- There is a high risk of pesticide use in the informal sector, especially DDT use in market gardening.
- There is also some concern about the possible contamination of the environment by residues. Maximum residue limits (MRL) for POPs have never been clearly set in Togo and therefore, so sample analysis is required for monitoring purposes. Preliminary research showed that POPs concentrations in biotic and abiotic samples were much higher than maximum accepted limits.
- The recycling of packages that contained toxic substances in households has become systematic and therefore populations are highly exposed to intoxication risks.
- Four sites were identified in Togo as being possibly contaminated by POPs.
 - Division of Agriculture warehouse
 - CRA-ZF Experimental station warehouse
 - ACDR warehouse
 - KR-I/KR-II warehouse

PCBs

- PCBs have never been industrially produced in Togo. However, they have been imported and used for electricity production and use as constituents of the fluid contained in electrical transformers and condensers.
- According to the initial inventory of PCBs in Togo, 424 transformers (i.e. 68% of the inspected transformers) were identified as containing electrical fluids probably including PCBs. This corresponds to 342 tons of fluids containing PCBs and 1,045 tons of solid waste contaminated by PCBs (31 March 2004).
- All the transformers containing PCBs do not include any security device aimed at avoiding contamination and therefore there is a serious risk for release to soil and exposure to human beings. There should be a secure and standardised platform for temporary storage of all PCBs (contaminated fluids and solid wastes). All the transformers should be collected and stored on the platform when they are no longer used.
- There is also a dissemination of PCBs or PRC-containing devices in the environment. Certain local companies still sell such equipment and this leads to inappropriate use in all sectors of activity: iron welding, transportation, arts crafts, household work etc. PCB-contaminated oils are also used for the manufacturing of kitchen utensils or skin care products without any notification. This poses a real risk which cannot be easily assessed.
- Furthermore, PCBs are used for other outdoor applications (painting, fireproof protection, adhesive products and coatings). This represents approximately 30 % of the total use of PCBs.

Non-intentional by products

Dioxins and furans are the less known POPs in Togo. The total amount of these POPs released in 2002 was calculated to be 518.65 g TEQ using the UNEP Dioxin Toolkit.

Sources of dioxin and furan releases in Togo

The following sectors were identified as being the main sources of dioxin and furan releases:

- Combustion activities (99.97% of total releases.) Uncontrolled combustion, related to bush fires or illegal burning of solid household or industrial waste, together with hospital wastes are the main causes of dioxin and furan releases in Togo and represent 88.1% of the total releases.
- Another source is the incineration of hospital wastes using a rudimentary technology without any control of the temperature or air pollution. This represented 40.2 g TEQ (7.75% of total releases).
- Incineration represents a major source of POPs releases and should be reduced. Article 5 of the Convention deals more specifically with waste incineration, including biomedical waste.

Other activities of the informal sector also induce furan and dioxin releases:

- Ferrous metal production: PCDD/PCDF releases can occur during fusion of contaminated organic products, wood chips and other materials used by craftsmen.
- Domestic heating system using biomass:
 - Firewood – the consumption of firewood represents 347 kg/ht/year in average),
 - Wood coal (59 kg/ht/year),
 - Vegetation wastes - plant stems mainly (millet, sorghum, cotton, palm-tree extracts, coconut tree extracts etc.).
- Domestic heating systems based on fossil combustibles.

Liquefied petroleum gas is almost the only fossil combustible used for cooking. However, it is not largely used yet. Petroleum use is very limited due to unavailability of adapted equipment for local cooking practices. The following figures correspond to the evolution of butane gas consumption over recent years 933,113kg in 2000, 1,093,613 kg in 2001 and 1,226,386 kg in 2002 (source GPP, 2002).

2.2. Individuals' exposure:

- ✓ There are potential contamination risks by POP pesticides (DDT, Aldrin, Heptachlor, Endrin and Dieldrin) due to the contamination of drinking water and foodstuffs.
- ✓ There is also a risk for electricity workers and user users to be exposed to PCBs by manipulating non compliant PCB-containing equipment.
- ✓ Populations in urban areas can be exposed to POPs which have been unintentionally released into the environment (transportation equipment, waste burning, biomass waste or POP generated by thermal electrical production).
- ✓ Some professions are at risk (market gardeners, small scale craftsmen involved in recycling metal from transformers etc.).
- ✓ Several sites were identified as being contaminated by PCBs in all the 5 economic regions of the country and the situation is even more worrying if we take into account that the workers are not aware of the dangers and use contaminated areas as resting areas.

2.3. Environment exposure:

- ✓ There are a certain number of sites that are possibly contaminated: pesticide warehouses, transformers storage places, sites containing leaking transformers which possibly contain PCBs, illegal household or biomedical waste deposits etc.
- ✓ There is also a certain degree of contamination of the atmosphere by dioxins and/or furans.

2.4. People's awareness of the danger:

- ✓ The level of awareness about the dangers related to pesticides and POPs more specifically is very low.
- ✓ The populations do not have any idea of the dangers related to PCBs and dioxins and/or furans.
- ✓ There is also a serious issue about the level of information about environmental hazards among State officials and more specifically employees of the Division of the Environment. Many stakeholders are not even aware of all the Conventions that Togo has signed or ratified, especially those related to chemical substances. This proves that the Government has no information policy targeted at non-governmental bodies or other stakeholders and devoted to the management of chemicals and Persistent Organic Pollutants.

2.5. Measures taken for POPs management in Togo

Legal and regulatory measures

Togo has a legal framework for the management of hazardous chemicals, including POPs. However, this framework needs to be updated in order to include the relevant dispositions of multilateral environment agreements that the country has signed. The legal framework includes the following:

- The Togolese Constitution (Adopted on 14 October 1992 and modified on 31 December 2002). Article 41 of the Constitution guarantees protection of health and environment. .
- Law n° 88-14 (3 November 1988) : This law set the Code of the Environment and includes general dispositions about waste management (section III) and waste release in the environment (section IV)
- Law n°96-007 (3 July 1996) deals with the protection of plants, including phyto-pharmaceutical plants. It was completed by Implementation Decree n° 98-0099/PR (30 September 1999) and several other decisions (Ministerial Decree n° 39/MAEP/MFP signed 28 December 1999 , Ministerial Decree n° 03/MAEP/SG/DA signed 20 January 2000 and Ministerial Decree n° 04/MAEP/SG/DA signed 20 January 2000)
- Decree n° 30 & 31/MAEP/SG/DA (21 September 2004) are related to the implementation of the Stockholm Convention and other conventions dealing with the management of chemicals.
- Law N°2000-012 (18 July 2000) relates to the Electricity sector.
- Decree N°2000-089/PR (8 November 2000) defines the conditions to exercise certain regulated activities, as decided by Law n° 2000 regulating the electricity sector.

- Law n°2000-90/PR (8 November 2000) organises the National Authority in charge of the Electricity Sector.
- Law n°96-007 (3 July 1996): Mining Code
- Law n°99-003 (18 February 1999): Petroleum Act
- Togo ratified the Stockholm Convention on 22 July 2004. It also ratified other Conventions related to Chemicals (Basel & Rotterdam Conventions).

On the contrary, PCBs and other “non-intentional” POPs are not well known by Togolese legislators and therefore no specific regulation has been adopted. This gap needs to be addressed urgently in order to avoid further dissemination of such products

Coordination and consultation bodies

A certain number of committees have been put in place for environment management in Togo. However none of them is specifically devoted to POPs and therefore the country has no coordination mechanism is available at the moment.

Some of the existing committees are dealing with POPs.

- National Committee for Chemical Safety¹: This is the consultation and monitoring body for the implementation of International Agreements on Chemicals.
- The National Committee on Phyto-pharmaceutical products²: It deals with the registration of phyto-pharmaceutical products.
- The National Committee for the Implementation of the lead elimination project, in charge of monitoring the process of eliminating lead from the fuel sold in Togo.
- Regional and Local Planning Committees. This is the framework for promoting and protecting the environment at regional and local levels.
- The Inter-Ministerial Environment: It facilitates the coordination of all the activities related to the protection of the environment.

2.6. Research, development and monitoring:

- ✓ There are some laboratory data about contamination risks of foodstuffs by POP pesticides and other types of pesticides. However, those data still remain partial and incomplete.
- ✓ There is no data about the levels of contamination of human beings by POP pesticides at national level.

¹ Comité national pour la Sécurité Chimique

² Comité National des Produits Phytopharmaceutiques

- ✓ There is no data about the health and environment effects of PCBs, dioxins and furans at national level.
- ✓ The study also made it possible to collect useful data about the risks and regulations related to the health and environmental effects of POPs at sub-regional, regional and international levels.

2.7. POPs monitoring capacities at national level

There are some laboratories in charge of monitoring POPs at national level but their intervention capacity is very low. The budgets are very limited and do not make it possible to put in place monitoring programmes for the evaluation of POPs. No laboratory equipment is available in the country to monitor dioxins and furans.

- ✓ There is a need to have more and better trained staff for POPs monitoring. Togo does not have enough specialists in toxicology and ecotoxicology and people who are able to analyse the management of environment hazards. The country has to address this issue and find competent people who would be able to elaborate and implement a national POPs monitoring programme.

Conclusion and recommendation

The Togolese government has shown a real commitment to implement Stockholm convention. In this perspective, NGOs have a great role to play. Indeed, their skills in raising awareness and information could be put at the disposal of Convention implementation in Togo. But to function efficiently in their roles, the following actions must be undertaken:

1. To build on the technical capacities of actors in civil society in terms of POPs: Actors in Togolese civil society have very little knowledge on POPs. Their knowledge of POP pesticides is slight and the majority of NGOs are completely unaware of the dangers of PCBs and of dioxins and furans. It is necessary to train these actors on the questions relating to POPs and to build on the technical and financial capacities of existing local networks such as Pesticide Action Network TOGO (PAN Togo).
2. To strengthen cooperation between civil society actors: In Togo there is no close collaboration between the different actors. Outside of the members of the PAN Togo network who come together occasionally in the framework of the implementation of projects and in the framework of the collaboration of its members, there is no such framework between actors, it is important to create this collaboration framework. In addition, the creation of a website to spread information on chemical products in general and on POPs in particular, proves to be necessary because it does not exist in Togo.
3. To create or promote the creation of POPs databases: In Togo, there is a drastic lack of data on the impact of POPs in health and on the environment. From the results of the different inventories, a database should be created to

- allow lobbying techniques in favour of sound ecological management of POPs in the country. This database must be regularly updated using the data and information provided by the holders of POPs and the different parties involved.
4. To undertake lobbying activities for the implementation of the National Implementation Plan of the Stockholm Convention: This plan in which actors of civil society have largely taken part contains relevant layouts for sound rational management of chemicals and elimination of POPs in Togo, but the activities foreseen in this framework are late to begin and if nothing is done for civil society, the plan will never be entirely implemented.
 5. To promote POPs regulation and elimination: Outside of POPs pesticides which have seen some level of regulation, PCBs and dioxins and furans are ignored by Togolese legislation. Actors from civil society and in particular NGOs must undertake lobbying activities to promote the regulation and elimination of POPs in Togo.
 6. To spread information on the dangers of POPs and to promote development of research for the implementation of organic, non-chemical alternatives to pesticides and to value the places in which they exist and the use of natural plants for the protection of harvests: In Togo the majority of farmers are unaware of the dangers of POPs for health and the environment. In addition, natural methods are in existence to protect crops, which have been set up thanks to research activities but not known about by farmers. NGOs must strengthen information activities in the farming environment and divulge existing endogenous production methods and promote if possible the development of research for the setting up of organic methods in collaboration with University researchers.