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International POPs Elimination Project
*Fostering Active and Effective Civil Society Participation in
Preparations for Implementation of the Stockholm Convention*

Contribution to a pollutants-free future

**Opportunities to move towards health care waste treatment
without incineration in Latin America**
English Summary

Health Care Without Harm – Salud Sin Daño

Dra. María Della Rodolfa, Coordinadora Región Latinoamérica

**GAIA, Alianza Global Anti-Incineración – Alianza Global para Alternativas a la
Incineración**

Cecilia Allen, Coordinadora de información y contacto en español

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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: English Summary and Full report in Spanish

Contribution to a pollutants-free future

Opportunities to move towards health care waste treatment without incineration in Latin America English Summary

About the report

Health care waste is a complex mixture comprised of different streams, such as general recyclable and organic materials, infectious waste, toxic chemicals and radioactive waste. In Latin America, the most extended practices to manage and dispose of waste are incineration (mostly in poorly equipped furnaces) or dumping in open pits. Both practices are dangerous and have to stop. Burial in dumpsites is especially dangerous given the biological and chemical hazards of some of the health care wastes and the resulting possibility of spreading diseases and chemical pollutants to the environment if the hazardous wastes are not properly disinfected and disposed of properly. Incineration emits extremely toxic pollutants through its gaseous, liquid and solid releases. Given that open burning is common in dumpsites, both practices are important sources of Persistent Organic Pollutants (POPs) to the environment.

The Stockholm Convention on POPs has entered into force and Parties are now in the process of designing and proceeding with their National Implementation Plans (NIPs). Given that waste incineration is listed among the sources which have elevated potential to release unintentionally produced POPs (U-POPs), and that governments will not only have their own resources but also international finance mechanisms to implement the Convention, this is a good opportunity to address the problem of mismanagement of health care waste and moving towards a POPs-free future. However, modernization of waste incinerators is being considered by some governments of the region as a proper way to minimize POPs releases. In this regard, and considering that alternatives to incineration exist and they do not produce POPs and are available in the region, that approach seems contradictory with the ultimate goal of the Convention: the elimination of Persistent Organic Pollutants.

This report intends to be a contribution for governments to implement the POPs Treaty without producing more persistent pollutants, by replacing the existent health care waste incinerators by other methods and technologies that are safer, less polluting and do not form U-POPs. It also aims to provide health care workers with guidance on how to improve waste management within their facilities, and ensure that people in charge of healing people's health will no longer be a source of health-harming pollutants. Finally, it will hopefully be a useful tool for NGOs, citizens and civil society groups to push for better health care waste management in their communities.

Incineration is not the appropriate technology

The anti-incinerator movement is in expansion in the Latin America region, as well as worldwide. The report briefly describes some citizen's local struggles against incineration plants, showing as well what incineration means in the practice. For example,

citizens of Villa Allende (Córdoba, Argentina) have successfully worked against a medical waste incinerator plant for some years, to take to an end the health and psychological problems that the plant had caused to them. After impressive public pressure, finding that local population had hexachlorobenzene and lead in their blood and there was no other potential source nearby, the authorities finally close the plant. In Paysandu, Uruguay, an incinerator plant was closed after finding that it was operating with several serious failures in the devices. These are only a few examples of the impacts incinerators actually have in the practice, and governments and health care workers should be aware of the consequences their decisions actually have for the population.

Moving towards safer alternatives

Given the proven pollutant record of waste incinerators, and the existence of safer alternatives that do not produce POPs, information, political will, public participation and partnership among stakeholders are essential to move towards a pollutants free future. Evaluating and improving health care waste management is needed in the region to achieve this goal.

Classification of different waste streams is provided in the report since it is a key part of any plan to improve waste management in health care facilities. The first step is waste minimization and segregation. Separating different types of waste at the point of generation and keeping them isolated from each other. Given that most of health care waste is comprised by general discards that can be reused, recycled or composted, and do not need to undergo a special disinfecting treatment, characterization of waste and proper source segregation are fundamental factors to improve waste management practices. Also important are training and monitoring measures, a proper disposition of different bins according to each waste stream, and the design of an adequate internal collection and storing of the waste within the facilities.

Proper segregation allows each waste stream to receive the type of treatment it needs, and this way health care facilities avoid spending a lot of money in costly disinfection treatments that are only necessary for a small percentage of the total waste. The majority of waste from health care facilities is surprisingly similar to the municipal or that of an office building -- paper, cardboard and food waste. Hospitals can implement fairly simple programs that divert these materials from the solid waste stream, lowering disposal costs.

Waste that must be disinfected before disposal is infectious waste, comprised for example by laboratory waste, sharps, etc. Several alternatives to incineration exist that do not create POPs and are safer and easier to control. In the report, some of these alternative technologies – autoclave, microwave and alkaline hydrolysis- are described. As mentioned, some of these technologies have been operating in Latin America for years, and can be cheaper than modern incinerators.

Another waste stream of concern is chemical waste. Through purchasing and product substitution, the toxicity of waste can also be reduced. For these types of materials the priority approach should be minimization by materials/substances substitution and reuse. Many examples of reduction of chemical waste exist such as replacement of mercury thermometers. These could be implemented in the region to reduce chemical

hazards and in many cases save money by avoiding hazardous waste treatment. Extended producer responsibility needs to be implemented, for example by working with companies to replace toxic substances in medical products or returning hazardous chemicals for them to reuse or dispose of safely.

Recent projects in different countries provide new opportunities to move towards non-incineration health care waste treatment in non-industrialized countries. For example, Health Care Without Harm conducted an international contest in 2002, to develop low cost incinerator alternative technologies especially suitable for rural areas. Examples described in the report are portable solar-powered autoclave, and a boiling chamber with a mechanical grinder and compactor. The models designed are a good alternative for the many rural and semi rural areas of Latin America, and should be taken into consideration when designing the national implementation plans, and the national, regional or local strategies to improve health care waste management. Also, implementation and research on incinerator alternatives to treat health care waste are gaining more support from international intergovernmental organizations. For example, the World Health Organization, United Nation Development Programme, the Global Environmental Fund and Health Care Without Harm are partners in a project developed in the framework of the Stockholm Convention, that aims to demonstrate and promote “best practices in reducing medical waste to avoid environmental releases of dioxins and mercury from health care practices”. The project includes non-incineration treatment of health care waste, and in the Latin America region it will be implemented in Argentina. These and other advances described in the report show that new developments are taking place in the area of health care waste management, that expand the possibilities of stop the release of new POPs by simply preventing their formation. As the report shows, the alternatives are not a fantasy, but are being implemented in many places in the world, including the Latin America region.

Finally, the report shows civil society groups play a key role in providing information to governments and decision makers on the impacts that waste management practices have over the environment and people’s health, as well as the ways to implement proper waste treatment and reduce sources of pollution. This is recognized by the Stockholm Convention that mandates parties to ensure public participation in the national implementation plans. Recognition of the knowledge that civil society groups have and a participatory process within the NIPs will assure a better implementation of the Convention in each country.