



Overview of the Global Monitoring Plan On Persistent Organic Pollutants (POPs) In Water, Air and Human Milk in Zambia

By

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Outline of the presentation

1. Zambia's status on the Stockholm Convention
2. Project objectives
3. Status of project implementation
4. Constraints
5. Next steps

Zambia's status on the SC

- The SC entered into force on February 17, 2004 and Zambia became a signatory in May 23, 2001 and later ratified the Convention on 5th October, 2006.
- Developed her first National Implementation Plan (NIP) for the initial 12 POPs from 2002 to 2006.
- Updated the initial NIP in 2013.
- Further, Zambia has in line with article 16 of the SC been implementing the Global Monitoring Plan (GMP)

Global Monitoring Plan

- The Government of the Republic of Zambia (GRZ) through Zambia Environmental Management Agency (ZEMA) partnered with the United Nations Environment Program (UNEP) to implement the GMP project.
- The GMP project is part of the global monitoring program and Zambia is part of the regional program for Africa.

Project Objectives

In order to strengthen the national capacity to implement the GMP for POPs, the following are the objectives of the project:

- i. To implement the GMP for POPs according to article 16 of the Stockholm Convention on the effectiveness evaluation, by generating data on the concentration of POPs in the core media of air, water and human milk; and
- ii. Develop a sustainable monitoring plan for POPs for the African Region.

Project Activities

The project is being implemented through the following activities:

1. Passive air sampling;
2. Water sampling;
3. Human milk sampling;
4. Matrices of major national interest sampling,
and
5. National laboratory analysis.

Status of Project Implementation

1. Passive air sampling:

- i. Sampling site - Kenneth Kaunda International Airport (KKIA)
- ii. Sampling schedule – quarterly
- iii. Expert laboratory - Institute for Environmental Studies (IVM) in the Netherlands and Man-Technology-Environment Research Centre (MTM) in Sweden.
- iv. National laboratories – duplicate samples
- v. Routine monitoring of sampling site

Passive air sampling



Fig 1: Passive samplers at KKIA

Fig 2: ZEMA officers changing PUFs

Status of Project Implementation Cont'D

2. Water sampling

- i. Sampling site: Confluence - Kafue and Zambezi Rivers.
- ii. Sampling schedule: quarterly
- iii. Expert laboratory: Sample ZMB-A - Man-Technology-Environment Research Centre (MTM) in Sweden.
- iv. National laboratories – duplicate sample (ZMB-B)

2. Water sampling



Fig 1&2: Sampling at the confluence of the Kafue and Zambezi Rivers

Status of Project Implementation Cont'D

3. Human milk sampling

Sampling has not yet commenced, however the following has been achieved:

1. Protocol for sampling has been approved;
 - a) Ethical clearance by Biomedical Research and Ethics Committee under University of Zambia;
 - b) Ethical clearance by the National Health Research Authority under the Ministry of Health;
2. Technical team for field sampling has been put in place

Status of Project Implementation Cont'D

Matrices of major national interest sampling

Sampling has not yet commenced, however the following has been achieved:

- i. Sampling plan developed and approved by expert laboratory;
- ii. The identified matrices are: fish, sediments, PUF/PAS, beef, egg, maize, tomato, pork and chicken

These samples will be analysed at national laboratories and the duplicate samples will be shipped for analysis at the MTM and E&H-VU laboratories.

Status of Project Implementation Cont'D

Capacity building training for laboratory experts

The following laboratories participated in the training:

- i. University of Zambia- Chemistry Department;
- ii. Zambia Bureau of Standards;
- iii. Zambia Agricultural Research Institute; and
- iv. Zambia Medicines Regulatory Authority.

The training was facilitated by expert personnel from laboratories based in Sweden and Netherlands

Constraints

The following were the constraints:

- i. Delays in obtaining ethics clearance;
- ii. Lack of budget line for the capacity building training workshop;
- iii. Inadequate equipment in national laboratories; and
- iv. Limited funds for the analysis of samples of national interest.

Next steps

- i. Routine sampling of air and water samples;
- ii. Routine monitoring of sampling site for air;
- iii. Sampling of human milk;
- iv. Sampling of matrices of national interest; and
- v. National laboratory analysis of matrices of national interest.

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Thank you for your attention