



AGENDA
For *Environment* and Responsible Development



POPs Country Situation Report - Tanzania

Title of project:

Enhancing awareness and participation of local actors and general public on the implementation of the Stockholm Convention in Tanzania

AGENDA for Environment and Responsible Development (AGENDA)

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Acronyms and abbreviations

AGENDA	AGENDA for Environment and Responsible Development
ASP	Africa Stockpiles Programme
BAT	Best Available Techniques
BEPs	Best Environmental Practices
COP	Conference of Parties
CPCT	Cleaner Production Centre of Tanzania
CSOs	Civil Society Organizations
DCC	Dar es Salaam City Council
DDT	Dichlorodiphenyltrichloroethane
EMA	Environmental Management Act
FCC	Fair Competition Commission
GCLA	Government Chemist Laboratory Authority
GEF	Global Environment Facility
HBCD	Hexabromocyclododecane
HCB	Hexachlorobenzene
HCBD	Hexachlorobutadiene
IPM	Integrated Pest Management
IRTECO	Irrigation Training and Economic Empowerment Organization
IVM	Integrated Vector Management
LGAs	Local Government Authorities
MC	Municipal Council
MoA	Ministry of Agriculture
MDAs	Ministries, Departments and Agencies
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MVIWATA	Mtandao wa Wakulima Tanzania (Network of Smallholder Farmers)
NEMC	National Environment Management Council
NGO	Nongovernmental Organization
NIP	National Implementation Plan
PCBs	Polychlorinated Biphenyls
PCDD	Polychlorinated para-dibenzodioxins

PCDF	Polychlorinated dibenzofurans
PCNs	Polychlorinated naphtalenes
PCP	Pentachlorolphenol
PeCBz	Pentachlorobenzene
PFOS	Perluorooctane sulfonic acid
PFOS-F	Perluorooctane sulfonyl fluoride
POPs	Persistent Organic Pollutants
PORALG	President's Office Regional Administration and Local Government
SCCPs	Short-chained chlorinated paraffins
TAPOHE	Tanzania Association of Public, Occupational and Environmental Health Experts
TANESCO	Tanzania Electric Supply Company
TBS	Tanzania Bureau of Standards
TFDA	Tanzania Food and Drug Authority
TPAWU	Tanzania Plantation and Agricultural Workers Union
TOTs	Training of Trainers
TPRI	Tropical Pesticides Research Institute
TRA	Tanzania Revenue Authority
UN	United Nations
UNEP	United Nations Environment Programme (UN Environment)
VPO-DoE	Vice President's Office – Division of Environment

Enhancing awareness and participation of local actors and general public on the implementation of the Stockholm Convention in Tanzania

1. Introduction

The Stockholm Convention on Persistent Organic Pollutants (POPs) was adopted at a Conference of Plenipotentiaries on 22 May 2001 in Stockholm, Sweden. It entered into force in May 2004. Tanzania, which is one of the six countries forming the East Africa Sub-region, signed it on the date it was adopted and ratified it on 30 April 2004, a month before entering to force.

The objective of the Convention is to protect human health and the environment from adverse effects of persistent organic pollutants.

The initial list of chemicals controlled under the Convention included 12 chemicals which were popularly referred to as the 'dirty dozen'. However, during meetings of the Conference of the Parties in 2009, 2011, 2013 and 2015, additional 14 new chemicals were included in the list, totaling to 26 controlled chemicals as of August 2016¹. The list consists of Pesticides (Aldrin, Dieldrin, DDT, Endrin, Chlordane, Hexachlorobenzene (HCB), Mirex, Toxaphene, Heptachlor, Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Pentachlorobenzene (PeCBz), Hexabromocyclododecane (HBCD), Technical Endosulfan and its related isomers, Pentachlorophenol (PCP) and its salts and esters and Lindane); Industrial chemicals (Polychlorinated Biphenyls (PCBs), Hexachlorobutadiene (HCBD), Hexabromobiphenyl, Hexabromodiphenyl ether and heptabromodiphenyl ether (homologues of commercial octabromodiphenyl ether), Hexachlorobenzene, Pentachlorobenzene (PeCBz), Perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F), Polychlorinated naphthalenes (PCNs), Tetrabromodiphenyl ether and pentabromodiphenyl ether (homologues of commercial pentabromodiphenyl ether)); and unintentionally produced by-product chemicals (Polychlorinated para- dibenzodioxins (PCDD), Polychlorinated dibenzofurans (PCDF, Hexachlorobenzene (HCB), Polychlorinated Biphenyls (PCBs), Pentachlorobenzene (PeCBz) and Polychlorinated naphthalenes (PCNs)).

During its Seventh Meeting of the Conference of the Parties held during the Joint Meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions, Geneva, Switzerland, 24 April - 5 May 2017, two more chemicals were added which are: decabromodiphenyl ether (commercial mixture, c-decaBDE); and Short-chained chlorinated paraffins (SCCPs). This brings the total number of POPs chemicals list to 28.

According to Article 7 of the Stockholm Convention, Parties have the obligation of developing, implementing and periodically reviewing and updating a National Implementation Plan on POPs. Tanzania completed and submitted its first NIP to the Secretariat of the Convention on 12 June 2006. It is also in the final stage of finalizing the update of the first NIP.

¹ URT, National Implementation Plan, 2016

2. Project description

This study has been initiated by AGENDA with financial support from IPEN as initial information that would help AGENDA and other stakeholders in Tanzania to find out the successes and gaps that appeared during the course of implementing the Stockholm Convention in Tanzania since its ratification. In the end, the information obtained will be shared for stakeholders' awareness raising, capacity enhancement and engagement. In addition to that, AGENDA will submit a more detailed report to the Convention Focal Point for information and relevant action.

3. Objective of the report

The objective of this report is to provide information on the NIP implementation gap with focus on the level of awareness of the local actors and their participation in implementing the NIP. The information obtained will be used to recommend improvements including the action plan for better engagement of the stakeholders in NIP implementation.

4. Methodology

The report development followed the following methodologies:

Literature review

A number of documents from different sources were reviewed by AGENDA. Some of these are: The Stockholm Convention text, NIP of the Stockholm Convention version 1, National reports of NIP implementation – first and second round, various laws, by-laws for waste management, the IPEN POPs Dioxins Kit and the sixteen New POPs booklet. All reviewed documents are listed at the end of this report (on the references).

Consultation with stakeholders

AGENDA consulted 20 stakeholders during the study mainly between March and May 2018. They are representative of among key stakeholder groups which for the scope of this study seems to be adequate. The identification of the stakeholders based on the roles highlighted in the NIP. The information on the stakeholders consulted is found on Appendix 1 below.

Site visit

AGENDA carried out a site visit at Morogoro Municipal dumpsite to see how waste disposal is handled. This was done on 8th and 9th May 2018. The site visit was facilitated by the staff of Morogoro Municipal Council, under the leadership of Municipal Environmental Officer, Mr. Samwel Subi.

Administration of questionnaires

Structured questionnaires were developed by AGENDA based on the information collected during the literature review and the consultation with stakeholders. The stakeholders were grouped as follows:

- (1). Ministries, Departments and Agencies (MDAs – Vice President’s Office – Division of Environment, (VPO-DoE), National Environment Management Council (NEMC), Government Chemist Laboratory Authority (GCLA), Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC), Ministry of Agriculture (MOA), President’s Office – Regional Administration and Local Government (PORALG), Tanzania Food and Drugs Authority (TFDA), Fair Competition Commission (FCC), Tropical Pesticides Research Institute (TPRI), Tanzania Electric Supply Company (TANESCO), Tanzania Revenue Authority (TRA));
- (2). Local Government Authorities (LGAs – Dar es Salaam City Council (DCC), Ilala Municipal Council (Ilala MC), Morogoro Municipal Council (Morogoro MC)); and
- (3). Civil Society Organizations (CSOs – Mtandao wa Wakulima Tanzania (MVIWATA), AGENDA for Environment and Responsible Development (AGENDA)).

Some questions in the questionnaire were specific to the stakeholder group. Altogether, questionnaires were sent to 15 stakeholders.

Questionnaire analysis

Questionnaires were analyzed by AGENDA; however, no statistical software was used since the data was small that it was well managed using the excel program. Most of the results were provided in percentages and listing.

Preparing and validating draft report

A draft report of the information obtained from all sources was prepared by AGENDA. The draft report was circulated to stakeholders for their review and input. In addition to that stakeholders had opportunity to share the findings through a 1-day workshop organized by AGENDA.

5. Activities for developing this report

The following activities enabled the development of this report.

- (i) Identification and reviewing the existing documents.
- (ii) Identifying stakeholders and developing stakeholder’s database.
- (iii) Consultation with stakeholders.
- (iv) Developing questionnaires for each stakeholder group.
- (v) Distributing the questionnaires to stakeholders.
- (vi) Interviewing and collection of the completed questionnaires.
- (vii) Analysis of questionnaires.
- (viii) Preparing the draft report.
- (ix) Planning a stakeholders workshop.
- (x) Receiving stakeholders inputs to the draft report and draft action plan.
- (xi) Finalizing the report based on the input from stakeholders workshop.

6. Reporting back

6.1 Submission of NIP to the Secretariat

According to Article 7 of the Stockholm Convention, Parties have the obligation of developing, implementing and periodically reviewing and updating a National Implementation Plan on POPs. Tanzania completed and submitted its first NIP for addressing the original 12 POPs listed in the Convention to the Secretariat of the Convention on 12 June 2006. This was done by the National Focal Point of the Convention.

Awareness by stakeholders on NIP presence

Eighty percent (80%) of respondents reported to be aware of the NIP presence in Tanzania. However, some indicated that they have not seen the NIP or the Stockholm Convention document. The stakeholders in the workshop commented that the stakeholders who gave this answer are at the high level of institutions, the awareness on this for the lower level cadres is definitely lower.

6.2 Updating the NIP

Tanzania is in the process of updating its first NIP. The reviewed NIP which is about to be completed for submission reflects the additional 14 out of the 16 'new POPs' that have been added since the convention came into force. The new POPs that will not be addressed are:

- a) Short-chain chlorinated paraffins (SCCPs).
- b) Decabromodiphenyl ether (commercial mixture, c-decaBDE).

The reason for not addressing them in the NIP is because they were added in the Convention in 2017, the time which the NIP review process was already at an advanced stage.

6.3 Issues not addressed by NIP (aside from new POPs)

The first NIP covered all issues as provided by the guideline provided by the Secretariat of the Convention and as per available data.

Gaps or omissions in the first NIP

The survey undertaken during NIP development identified gaps such as:

- Lack of planned information dissemination strategy;
- Information on a number of sub-categories was not readily available including waste burning and accidental fires, production and use of chemicals, miscellaneous (e.g. drying of biomass, crematorium, smoke houses, drying cleaning residue), and hot spots (e.g. PCB-filled transformers and capacitors, dump sites etc). In addition, it was not possible to assess adverse effects of PCDD/PCDF to human health and areas surrounding sources due to lack of expertise and monitoring activities. Identification of critical cases was not possible. Due to absence of national emission factors in the toolkit on several potential sources, releases from these sources could not be estimated. This is according to the first

NIP, where it is noted that the emission factors were not available for all local potential sources.

- Lack of capacity and experience for monitoring of releases of PCDD/PCDF;
- Lack of awareness of the PCDD/PCDF;
- Lack of Best Available Techniques (BATs) and Best Environmental Practices (BEPs);
- Lack of implementation of the recommendations made during the NIP survey (section 3.4.3.5) which read as below.

- (i) Develop emission factors based on local/regional conditions;
- (ii) Carry out specific studies to generate reliable input data for estimation of PCDD/PCDF releases; and
- (iii) Carry out further inventory in areas not covered by this survey.

6.4 Commitments undertaken by stakeholders

Stakeholders indicated the commitments they have undertaken to address the initial 12 POPs as outlined in Appendix 2 below. In some cases, the timeframe and the nature of the problem associated with those chemicals was not filled in, no information was available from stakeholders. In many cases, no plan exists; hence a timeframe has not been set.

The commitments included addressing obsolete pesticides stockpiles, awareness raising, inventory of equipment with oil containing PCB, identification of sites contaminated with POPs, establishment/effect of national poison centre which is located at the GCLA, restricting importation, exportation through registration and inspection of chemicals including pesticides dealers.

6.5 POPs issues requiring attention as per NIP

NIP has identified POPs chemicals requiring urgent or immediate attention. These include: Obsolete pesticides stockpiles, transformers and capacitors containing PCB, DDT use in agriculture and DDT use for public health. Table 1 below provides the details of what actions have been taken.

Table 1: Actions taken for POPs chemicals requiring urgent or immediate attention

S/N	Stakeholders	Action taken	Timeframe	Effectiveness of the action
1	VPO-DoE	Disposal of stockpiles	2009 – 2013	High
2	NEMC	Disposal of stockpiles	2009 – 2013	High

S/N	Stakeholders	Action taken	Timeframe	Effectiveness of the action
3	GCLA	Restricting permit for importation of chemicals	Not indicated	High
		Establishment of national poison centre	Not indicated	Not indicated
4	MoHCDGEC	Promote public awareness and education	Not indicated	High
		Oversee and enforce public health Act 2009 and other related laws	Not indicated	High
		Prepare and implement public health strategies to minimize or prevent exposure	Not indicated	High
5	MOA	De-register them	Upon decision at COP	Not indicated
6	PORALG	Ban the use of DDT in agricultural production	Upon decision at COP	Not indicated
		Community sensitization on their effects	Continuous	Not indicated
7	TFDA	N/A	N/A	N/A
8	FCC	N/A	N/A	N/A
9	TPRI	De-register them	Not indicated	Medium
10	TANESCO	TANESCO through the Vice President's office are in the process to dispose oil with PCB which is contained in transformers and capacitors (to southern Africa countries) which are currently in storage, discussion is going on regarding the procedure to be followed (<i>Only the oil will be shipped out for disposal, the disposal</i>)	2006 - 2018	Low

S/N	Stakeholders	Action taken	Timeframe	Effectiveness of the action
		<i>method is not yet known but may be known as they continue discussing. The metal part will remain in storage awaiting disposal option and schedule to be reached).</i>		
		Stakeholder consultation	2006 – To-date	Low
		Establishment of coordination committee	2006 – To-date	Low
		Inventory and collection of transformers and capacitors containing PCB	Not indicated but was completed	Low
		Legal review	Not indicated	Low
		Establishment of temporary storage	Not indicated	Low
11	TRA	N/A	N/A	N/A
12	DCC	Plans to establish sanitary landfill	Discussion is going on with donor	Low
13	Ilala MC	Raising awareness to the local community	Continuous	Low
		Penalizing those discharging chemicals into environment	Continuous	Low
		Customizing NIP into Municipal by-laws	Continuous	Low
14	Morogoro MC	Enforcement of environmental laws	2018 - 2020	Medium
		Conduct quarterly inspection	2018 - 2020	Medium
		Raising community awareness through community meetings and media	2018 - 2020	Medium
15	MVIWATA	None	N/A	N/A

S/N	Stakeholders	Action taken	Timeframe	Effectiveness of the action
16	AGENDA	Public awareness raising	Continuous	Medium
		Training TOTs	2007, 2009, 2017	High

6.6 Challenges and success for NIP implementation in Tanzania

In general, the stakeholders have a feeling that NIP implementation is not working as expected. The challenges for NIP implementation are outlined in two levels below. The related successes are also outlined below.

(a) The stakeholders indicated challenges such as:

- (i) Unknown level of pollution by POPs chemicals to water, air and soil in the country.
- (ii) Insufficient policies and laws to address all aspects of managing and monitoring POPs, alternatives to POPs liabilities / penalties for improper disposal of POPs waste/waste containing POPs and remediation of sites contaminated with POPs
- (iii) Current laws policies and management practices do not meet all of the obligations of the Convention.
- (iv) Not well coordinated laws.
- (v) Conflicting laws and functions.
- (vi) Limited financial resources.
- (vii) Limited staff number and capacity.
- (viii) Lack of appropriate technology for disposing of POPs chemicals e.g. PCBs and POPs wastes.
- (ix) Low awareness by the general public on chemicals and POPs in particular.
- (x) Low awareness on the available alternatives to POPs.
- (xi) Little attention or priority given to POPs management.
- (xii) Inadequate technical infrastructure for monitoring environmental and health impacts of POPs.
- (xiii) Lack of accountability from the industry and other polluters.

- (xiv) Poor infrastructure such as dumpsites.
- (xv) Lack of facilities for sound disposal of hazardous waste
- (xvi) Limited knowledge on POPs identification and handling
- (xvii) Inadequate enforcement of existing laws such as EMA, 2004 and the by-laws of local authorities for waste management e.g. 75% of domestic waste is open burnt in the country².
- (xviii) Low information / knowledge to decision makers/leaders at various levels.
- (xix) Low information to stakeholders that NIP implementation is their role
- (xx) Some equipment in chemical laboratories still have PCB in use

(b) NIP implementation challenges outlined in the second round report to the Secretariat

The second round Tanzania report to the Convention Secretariat³ has highlighted challenges such as: Not able to take action to remediate the POPs contaminated sites, lack of funds, inadequate expertise, restrictive co-financing requirements by GEF and inadequate resource mobilization, lack of necessary technology, lack of disposal facility for PCBs and lack of storage facility for PCBs. Others are POPs not covered in school curriculum and inadequate institutional infrastructure for researching on impacts of POPs and promoting the POPs alternatives.

Tanzania has never undertaken remediation of POPs contaminated sites. Generally, specialized services and facilities to manage remediation of POPs contaminated sites are not in place. There is a need to build capacity in this area. Training in specialized skills, undertaking of demonstration projects, and provision of monitoring equipment are crucial.

The capacity for monitoring of PCBs in food, humans and environment is limited to two institutions i.e. the University of Dar es Salaam and Government Chemist Laboratory Authority (GCLA). Literally there is no capacity and experience for monitoring of PCDD and PCDF in the environment and humans. There is also limited capacity for monitoring of POP Pesticides within the existing institutions in the country such as the Tropical Pesticides Research Institute (TPRI), GCLA and the University of Dar es Salaam. Adhoc monitoring through studies or projects has been undertaken in selected areas. There has been no continuous monitoring. The existing evidence includes case studies, which were conducted by TPRI in 1997 on the effects of organochlorines in birds and agro-ecosystem of maize. The studies showed low levels of residues of organochlorines

²

<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/ctl/Download/mid/13657/Default.aspx?id=170&ObjID=6440>

³ <file:///C:/Users/USER%20PC/Downloads/Tanzania%20SC%20Report%20to%20Secretariat%202012.pdf>

in the range of 0.001-1.45 ng/g. Preliminary studies conducted in 1995 in one of the areas with high agricultural activities to determine the extent of dieldrin residue and its metabolites in the soil, indicated a concentration of 0.3-0.9 ppb. In another study undertaken in 2000 by the University of Dar es Salaam, the levels of DDT in soil surrounding the Vikuge storage site were very high showing concentrations of up to 282,000mg/kg dry weight.

Institutions involved in monitoring of POPs products and releases are those responsible for policy formulation and implementation, environmental pollution monitoring, chemical management, training and research development and the major owners of electrical equipment, i.e. TANESCO. However, capability and capacity of these institutions in ensuring effective monitoring of POPs releases is far from being adequate.

(c) Successes provided by stakeholders

Despite the challenges noted above, NIP implementation resulted in the following:

- (i) Inventory of POPs was developed, the website of the VPO (<http://vpo.go.tz/>) was initiated, and information dissemination to public by VPO-DoE was done.
- (ii) Preliminary setting of priority for addressing the sites contaminated by POPs using the criteria agreed by stakeholders.
- (iii) Development of communication strategy for POPs communication.
- (iv) Development and dissemination of awareness materials by the Focal Point and some stakeholders especially NGOs/CSOs.

6.7 Tanzania compliance with the Convention

Stakeholders were asked to give their views indicating if the country is complying with the Convention. Sixty three (63%) of the stakeholders reported that the country complies though not hundred percent. Most of them indicated not to have accessed the NIP or the Convention document, neither they have received guidance from higher levels for them to implement the convention and how. Further, stakeholders noted that they are not sure of which obligations the Focal Point has in order to comply. Below are matters that show the country to be non-compliant to the NIP.

- The country has submitted only two reports instead of four to the Secretariat.
- One of the contaminated sites with POPs, Old Korogwe site was cleaned in 2008 by collecting the stocks and part of the contaminated soil for disposal.
- NIP implementation is still weak due to challenges listed above.
- POPs chemicals (endoslfan and lindane) are still been used and U-POPs are still been emitted especially during open burning of waste as described in the paragraph below.

POPs chemicals in use or emitted

From this study it was noted that transformers and capacitors which used to contain oil with PCB have been removed from use, they are stored awaiting disposal. It was learnt further that the oil will be decanted from the equipment for safe disposal outside the country, leaving behind the equipment free from the oil to be disposed later. This equipment was used by Tanzania Electric Supply Company (TANESCO), which has now replaced them with the new ones with PCB-free oil.

In Dar es Salaam City, Morogoro and Ilala Municipals, the dumpsite fires still occur, thus resulting into release of unintended POPs (U-POPs) chemicals. The dumpsites are still operating as open dumping sites (crude dumping) where dump fires and leachate are common, some photographs to illustrate the situation are in Appendix 3 below.

It was also indicated that there is illegal trade and use of DDT, endosulfan and lindane for agricultural production in some parts of the country, though no study has been done to identify the extent of the problem. It is illegal because, for example, DDT has been banned for agricultural use in Tanzania since 1997, and TPRI has not registered it and is no longer registering endosulfan and lindane.

Other stakeholders did not report any use or emission of POPs chemicals except those used for laboratory services. However, the day to day activities for some institutions still contribute to unintended POPs release (PCDDs and PCDFs) and other toxins, especially when burning large amount of equipment or materials as a way of destroying them. Also, some institutions still burn waste from their offices and compounds, the same applies to some households as well as burning healthcare waste in institution's inadequate incinerator. Two sample photographs have been provided in Figures 7 and 8, Appendix 4, showing what some healthcare incinerators look like. The photographs were taken from a district level facility, where the incinerator is expected to perform better than most of those installed in lower level facilities.

6.8 Submission of reports to the Secretariat of the Convention

Parties have the obligation to report to COP in every four years cycle. The first to fourth cycles were due on 31 December 2006, 31 October 2010, 31 August 2014 and 31 August 2018 respectively. Tanzania has submitted two reports to the Secretariat, on 31 July 2007 and 16 January 2012

(<http://chm.pops.int/Countries/NationalReports/FirstRoundofPartyReports/tabid/254/Default.aspx>

and

<http://chm.pops.int/Countries/NationalReports/SecondRoundofPartyReports/tabid/1315/Default.aspx>).

Details of the key POPs issues

The key POPS issues reported were mainly on the challenges in the country for addressing the convention requirements and these were mainly on resources and skills (human - number and expertise, financial, technology).

Gaps noted during the review of the report

Reporting to Focal Point by stakeholders is inadequate. According to the first NIP (<file:///C:/Users/USER%20PC/Downloads/UNEP-POPS-NIP-Tanzania-1.English.pdf>) the following institutions and organizations have various roles on reporting of POPs issues to the National Focal Point. These include: -

- (i) Tropical Pesticides Research Institute (TPRI)
- (ii) Ministry of Transport and Communication
- (iii) Ministry of Home Affairs
- (iv) Ministry of Agriculture - Plant Health Services
- (v) Ministry of Health
- (vi) National Environment Management Council (NEMC)
- (vii) City and Municipal Councils
- (viii) Government Chemist Laboratory Authority (GCLA)
- (ix) Ministry of Industry and Trade
- (x) Cleaner Production Center of Tanzania (CPCT)
- (xi) Environmental NGOs such as AGENDA and TPAWU

It has also been noted that there is limited national capacity for reporting of POPs information in these institutions due to the following constraints: lack of clear inter-institutional reporting system; lack of monitoring and reporting programme; and lack of guidelines and standards for monitoring and reporting of POPs.

From the consultation with stakeholders it was indicated that the contribution to POPs reporting is done during a specific activity or during technical meetings. The remark was also given that stakeholders need guidance from the Focal Point on this and other issues.

Eighty two percent (82%) of the stakeholders do not usually prepare any report on NIP implementation, and so they have not provided any report to the Focal Point. Only two institutions representing 18% of the respondents have submitted at least one report to the Focal Point, in which they indicated the following as far as addressing POPs within their institutions/mandates is concerned:

Current laws, policies and management practices in Tanzania do not meet all of the obligations of the Stockholm Convention. The laws governing different sectors of chemical management are not well coordinated and have conflicting functions. There is a need to review, harmonize and streamline these provisions. Improved enforcement processes are also needed, including coordinated action plans and enforcement programs.

The inventory also documented sources and releases of polychlorinated dibenzo-p-dioxin (PCDDs) and polychlorinated dibenzofurans (PCDFs).

Evaluation of releases

Due to lack of financial resources the country faces difficulty in evaluating releases derived from anthropogenic sources.

Technology Transfer

Tanzania has not received technology transfer as per article 12 of the Convention.

Additional financial resources

Tanzania has not been provided new and additional financial resources in support of the financial mechanism as per paragraph 2 of Article 13.

6.9 Policies, laws, regulations, by-laws and standards to support the NIP and Convention objectives

Following the ratification of the Convention, several legal instruments have been developed to support the NIP and the Convention objectives. The instruments developed after adoption of the Convention or existed before which support it include:

Policies:

- i) Health Policy (1990)
- ii) National Environmental Policy (1997)
- iii) Agriculture and Livestock Policy (1997)
- iv) Human Settlement Policy (2000)
- v) Energy Policy (2002)
- vi) Water Policy (1991) and its amendments of 2002
- vii) Health Policy (1991) revised (2003)

Laws:

- i) Public Health Ordinance (1954)
- ii) Water Utilization (Control and Regulations) Act of 1974 and its amendment of 1981, 1988 and 2000
- iii) Tropical Pesticides Research Institute Act (1979)
- iv) Plant Protection Act (1997)
- v) Local Government (District and Urban Authorities) Acts, No.7 and 8 of 1982
- vi) The Mining Act (1998)
- vii) The Atomic Energy Act (2002)
- viii) Tanzania Food, Drugs and Cosmetics Act (2003)
- ix) Industrial and Consumer Chemicals (Management and Control) Act of 2003

- x) Government Chemist Laboratory Authority Act (2016)
- xi) Occupational Health and Safety Act (2003)
- xii) Environmental Management Act (2004)
- xiii) Fertilizers Act (2009)

Regulations:

- i) Environmental Management (Water Quality Standards) Regulations (2007)
- ii) Plant Protection Regulation (1999)

By-laws:

By-laws for municipalities waste management exist in all municipalities engaged in the project. However, they are not adequately enforced.

6.10 Engagement of stakeholders

(i) Government engagement of stakeholders in NIP activities

Most stakeholders (67%) reported that they have usually been engaged by the Focal Point on relevant issues under the Convention implementation. They are engaged in activities such as: NIP development and review, capacity enhancement, awareness raising, undertaking surveys, etc. It was noted that there is limited engagement since there are limited activities at the Focal Point level. Financial resources are limited and so the reason for limited activities. For example, the following stakeholders reported to have been engaged as described below.

Tanzania Electric Supply Company (TANESCO)

- a) Carrying out meetings, facilitating and participating in awareness and education activities organized by Focal Point.
- b) Identifying transformers and capacitors with PCBs within TANESCO.

Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC)

- a) Data collection on U-POPs inventory.
- b) Working group on POPs, guideline for developing a National Implementation Plan for the Stockholm Convention on POPs.
- c) Report of data collection on new and initial organic pollutants (POPs) in Mbeya and Morogoro regions.

AGENDA

- a) Carrying out meetings, facilitating and participating in dialogues, awareness and education activities organized by the Focal Point.
- b) Participating in developing and reviewing documents such as NIP, policies, laws, guidelines and awareness materials.
- c) Training stakeholders on the Implementation of NIP in Tanzania.

(ii) Stakeholders engagement of public, CSOs and NGOs in NIP activities

Engagement of public, NGOs and CSOs by stakeholders in implementing NIP

It is one of the stakeholders' responsibilities to engage the public, NGOs and CSOs to keep them informed of POPs. For those consulted, only 47% have done so during the activities such as preparing brochures and posters, and distributing them to public and other groups, and also during seminars and public events. Limited finances and technical capacity are among the reasons for not engaging more groups. TANESCO reported to engage its marketing department in carrying out awareness (educate public) in risk and effects of PCBs within transformers, especially to alert those who steal transformer oil. 33% reported not to have engaged the groups indicated above while 20% did not respond to the question.

6.11 Committees formed by stakeholders for implementing the Convention

None of the stakeholders (except the Focal Point and the Ministry of Agriculture) have created committees for implementing the Convention on its area of jurisdiction. The Focal Point has established POPs committees with which most activities are undertaken. The committees meet at least once annually. From those consulted, TANESCO, AGENDA reported to be a member to one or more such committees. Also, there were views that NIP for Stockholm Convention was not well communicated to the Local Authorities, so they don't know if they need to form committees.

6.12 Progress or decline in countries efforts to address POPs

Quite minimal changes have occurred since the start of this project, it is as if the project woke up the engaged stakeholders about their roles in implementing NIP. Also, some stakeholders became aware of the Convention and the NIP as well as the need for them to act, hence seeking guidance from the Focal Point. They asked AGENDA to send such a request to the Focal Point.

6.13 Recommendations on public or NGO perspective

AGENDA's general views on the project are as below:

There were a lot of issues listed by stakeholders as challenges for them not been able to achieve the objectives of the Convention. These were many and some not focusing on the project. AGENDA and stakeholders reviewed them to come up with those which will focus on the project and include them in the action plan.

Other views are as below:

- (i) There was a lot of appreciation from stakeholders in the initiative taken by AGENDA.
- (ii) Most stakeholders reported not to have accessed the Convention and the NIP. Communication with them on the Convention and the NIP has been poor. This led to poor implementation of the NIP at their institutions particularly the Local Authority level. As an initial step, AGENDA compiled some documents in a CD and provided them to the stakeholders during the workshop held by AGENDA to validate the draft report.
- (iii) The Convention Secretariat and interested partners need to support the countries like Tanzania whose economies are low and unable to support adequate implementation of the Convention.
- (iv) The need for a study to identify the extent of use of POPs pesticides such as DDT, lindane and endosulfan in order to recommend necessary actions.

6.14 Stakeholders ideas on how to improve NIP implementation in Tanzania

Ideas as to how to improve NIP implementation were given by stakeholders. They included the issues even those which are not directly focus on the study. These were reviewed and remain with the issues listed below, the ones which have been used to develop the action plan.

- i) The Focal Point to lead the process of promoting the implementation of the National Environment Communication Strategy (2014).
- ii) Establishing and enhancing multi-stakeholder coordination and networking mechanisms (platforms/forums) on chemicals and waste management including POPs.
- iii) Enhancing institutional capacity particularly of Local Government Authorities (LGAs) in identifying and managing POPs and other chemicals by providing training and awareness at all levels.
- iv) The Focal Point to issue guideline for NIP implementation and reporting by stakeholders.

- v) The Focal Point to provide feedback from COPs to stakeholders to inform them about NIP implementation and the obligations of the stakeholders.
- vi) To strengthen enforcement of policies, laws, regulations and guidelines of chemicals and waste management.
- vii) To strengthen local, national, regional and international collaboration on the use of alternative technologies for controlling POPs.
- viii) Reviewing and updating policies and regulatory framework to address POPs.
- ix) To increase budget and staff for addressing environmental dimensions at all regulatory levels.

6.15 Project outcomes

Activities conducted

The following activities enabled the development of this report.

- (i) Identification and reviewing the existing documents.
- (ii) Identification of the stakeholders and development of stakeholder's database.
- (iii) Consultation with stakeholders.
- (iv) Developing questionnaires for each stakeholder group.
- (v) Distributing the questionnaires to stakeholders.
- (vi) Collecting the completed questionnaires.
- (vii) Analysis of questionnaires.
- (viii) Preparing the draft report.
- (ix) Planning a stakeholders' workshop.
- (x) Receiving stakeholders inputs to the draft report and draft action plan.
- (xi) Finalizing the report based on the input from stakeholders workshop.

Outreach to government authorities and other stakeholders

The stakeholders consulted and engaged in this study are as shown on Appendix 1. AGENDA will prepare a report of the project in a suitable format and submit this to the Focal Point for necessary action. The report will also be shared with stakeholders in order for them to start looking into action they can initiate while waiting for communication from the Focal Point (government). No committee was created as a result of this project.

6.16 Deliverables and outputs: List the types of outputs from the activity, including reports, photos or information materials

The deliverables are:

- Project narrative report outlining the stakeholders' engagement plan.
- Action plan (Appendix 3).
- Media coverage /publications (Appendix 5).
- Project financial report (Separate file).
- Workshop report (separate file).
- Photographs (Appendix 4).

The deliverables have well been accomplished except for newspaper clippings for which the requirement was to have at least two newspaper clippings, but appearances on television and radio broadcasting supplemented media coverage.

6.17 Communication Efforts

AGENDA communicated, consulted and discussed with the National Focal Point and other stakeholders in their engagement in NIP implementation. Some photographs taken during the study have been attached – Appendix 4.

Journalists were invited to the workshop which was covered in the news bulletin in television and radio the same day. Radio coverage was repeated in three different times and days including morning talk in one day. Appendix 5 below shows the picture taken from the news bulletin in TVE, and a newspaper clipping (Figures 9 and 10).

AGENDA compiled some relevant information such as the Convention, NIP, Brochure of the Stockholm Convention, Environmental Management Act, Environment Policy, Industrial and Consumer Chemicals (Management and Control) Act; and burn them onto a CD. The CDs were then handed over to stakeholders (including media) for their own reading to beef up what they gain at the consultations and the workshop.

6.18 Stockholm Convention Focal Point

The name and contact details of National Stockholm Convention Focal Point follow below.

Name: Ms. Magdalena Mtenga

Contacts: Vice President's Office, Division of Environment
LAPF Building
P. O. Box 2502
40406 Dodoma

E-mail: magejohn@yahoo.com

6.19 Change from the original project activity plans and why

Tanzania has been effecting the change of its political capital in phases since mid 2016. As a result, the Focal Point of the Convention and all ministries and some agencies have therefore moved from Dar es Salaam (the previous political capital) to Dodoma, the new capital. Communication between AGENDA which is still located in Dar es Salaam and the ministries has become more expensive financially and time consuming.

The awareness materials could not be printed for sharing with stakeholders due to budget limitations as some of the money was used for unplanned workshop expenses. However, materials developed by AGENDA in 2017 on Stockholm Convention implementation in Tanzania were still useful and were therefore further disseminated.

6.20 Resources on NIPs and Stockholm Convention public engagement

Below are the websites of some institutions and publications with the role of managing chemicals in Tanzania.

- (i) Vice President's Office – Division of Environment, SC Focal Point, <http://vpo.go.tz/>
- (ii) Government Chemist Laboratory Authority – SAICM Focal Point, <https://gcla.go.tz>
- (iii) Tropical Pesticides Research Institute, www.tpri.or.tz/
- (iv) Ministry of Agriculture, www.kilimo.go.tz/index.php/en
- (v) National Environment Management Council, <http://www.nemc.or.tz/>
- (vi) Tanzania Bureau of Standard, www.tbs.go.tz/
- (vii) Mtandao wa Vikundi vya Wakulima Tanzania, www.mviwata.org
- (viii) Southern Agricultural Growth Corridor of Tanzania, <http://www.worldbank.org/en/country/tanzania/brief/southern-agricultural-growth-corridor-of-tanzania-sagcot-fact-sheet>

References

Tanzania first NIP

<http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/ctl/Download/mid/13657/Default.aspx?id=170&ObjID=6440>

<http://ipen.org/documents/ngo-guide-persistent-organic-pollutants>

- IPEN Dioxin Toolkit Video:

<http://ipen.org/news/new-ipen-video-introduction-dioxin-toolkit>

- IPEN Guide to BFRs:

<http://ipen.org/documents/public-interest-guide-toxic-flame-retardant-chemicals>

- Link to all National Implementation Plans and amendments

<http://chm.pops.int/Implementation/NIPs/NIPTransmission/tabid/253/Default.aspx>

- Link to guidance on developing NIP's and other background information.

<http://chm.pops.int/Implementation/NationalImplementationPlans/Guidance/tabid/2882/Default.aspx>

<http://toolkit.pops.int/>

For an excellent video guide to the toolkit and related resources see;

<http://ipen.org/news/new-ipen-video-introduction-dioxin-toolkit>

National reports <http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx>

Appendices

Appendix 1: A list of stakeholders engaged in the study

S/N	Stakeholder	Roles as per establishment	Engagement plan in the project
Government Ministries, Departments and Agencies (MDAs)			
1	Vice President's Office, Division of Environment LAPF Building, P. O. Box 2502 40406 Dodoma	National Focal Point of the Stockholm convention in Tanzania, develop and review National Implementation Plan of the convention, develops national environmental policies, laws and regulations, prepares and provides NIP implementation report to the secretariat	Consultation at national level, invite to the workshop, share report with them
2	National Environment Management Council (NEMC) P. O. Box 63154 DSM	Enforce national environmental policies, laws and regulations, coordinates their enforcement in Tanzania mainland	Consultation at national level, invite to the workshop, share report with them
3	Government Chemist Laboratory Agency (GCLA) P. O. Box 164 DSM	National Focal Point of the Stockholm convention in Tanzania, develop and review National Implementation Plan of the convention, develops national environmental policies, laws and regulations, prepares and provides NIP implementation report to the secretariat	Consultation at national level, invite to the workshop, share report with them
4	Ministry of Health, Community Development, Gender, Elders and Children Faculty of Social Science and Community Development Building No. 11 P. O. Box 743 Dodoma	Protects human health from adversary effects of POPs and awareness to the public	Consultation at national level, invite to the workshop, share report with them
5	Ministry of Agriculture and Cooperatives P. O. Box 2182 40487 Dodoma	Enforces national environmental and agriculture policies, laws and regulations, coordinates NIP implementation in agriculture sector in Tanzania mainland.	Consultation at national level, invite to the workshop, share report with them
6	President's Office Regional Administration and Local Government P. O. Box 1923	Enforces national environmental policies, laws and regulations, coordinates NIP implementation in local government in Tanzania mainland. Open burning of the marijuana and	Consultation at national level, invite to the workshop, share report with them

	Dodoma	fishing gears	
7	Tanzania Food and Drugs Authority (TFDA) P. O. Box 77150 DSM	Open burning of expired and unsafe cosmetics, drugs and other chemicals	Consultation
8	Fair Competition Committee (FCC) 2nd Floor, GEPF House, Regent Estate along Bagamoyo Road, P.O. Box 7883, DSM	Protect the health quality of the end user or customers, open burning of confiscated articles	Consultation at national level, invite to the workshop, share report with them
9	Tropical Pesticides Research Institute (TPRI) P. O. Box 3024 Arusha	Pesticides registration, monitoring and evaluation, training of users, public awareness, reporting to national authorities	Consultation, share the report with them
10	TANESCO	POPs in transformers and other electrical equipment that contain oil with PCBs and other POPs chemicals	Consultation at national level, invite to the workshop, share report with them
11	TRA	Undertake custom charges of goods at entry, production, distribution and sale points	Consultation
Local government Authority (LGAs)			
12	Dar es Salaam City Council	Owns and manages the City dumpsites	Consultation at national level, invite to the workshop, share report with them
13	Ilala Municipality Council	Collects, transport and dispose of municipal waste in the City dumpsite, enforces relevant laws, formulates and enforces municipal by-laws	Consultation, Invite to the workshop, share report with them
14	Morogoro Municipal Council	Implement NIP in Morogoro Municipal Council (participate in identifying and managing NIP issues – stockpiles, emissions, contaminated sites, new POPs, etc, to raise awareness on NIP and POPs issues.	Consultation at national level, invite to the workshop, share report with them
CSO and CBOs			
15	MVIWATA Morogoro	Promotes IPM/IVM, awareness raising on POPs, engagement in policy change, policy formulation (national and beyond)	Consultation at national level, invite to the workshop, share report with them
16	AGENDA Dar es Salaam	Promotes IPM/IVM, awareness raising on POPs, engagement in policy change, policy formulation	Host

	Media		
18	EFM Radio	Public awareness raising of the importance of NIP and POPs control	Invite them to workshop
19	Mwananchi	Public awareness raising of the importance of NIP and POPs control	Invite them to workshop
20	Mtanzania	Public awareness raising of the importance of NIP and POPs control	Invite them to workshop

Appendix 2: Stakeholders commitments

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
	VPO-DoE	<p>To eliminate stockpiles</p> <p>About 1000 tonnes of obsolete stocks of POPs pesticides and contaminated soil were collected and sent abroad through the Africa stockpiles programme (ASP) under NEMC</p>	2006 - 2013	<p>Air, water, land, sediment, pollution by obsolete pesticides</p> <p>Exposure to people and animals</p>
		<p>To eliminate emissions</p> <ul style="list-style-type: none"> ○ National Cleaner Production Strategy (2007) has been developed and its implementation is on-going in which more than 70 industries have been involved in implementing cleaner technologies and techniques; ○ VPO conducted training to Municipal and District Council personnel on Best Available Techniques (BATs) and Best Environmental Practices (BEPs) for management of PCDD/PCDF releases; ○ NGOs including AGENDA, Envirocare, TAPOME and IRTECO trained over 1,000 people including extension officers, researchers, laboratory scientists/technicians, post graduate students, primary and secondary school teachers, community based organizations on toxicology, health and environmental effects of toxic pesticides and alternatives between 2004 and 2016. ○ Implementation of Integrated Pest Management (IPM) 	Not indicated	Pollution by obsolete pesticides
		<p>To identify and remediate contaminated sites</p> <ul style="list-style-type: none"> ○ Conducted studies to determine the extent of sites contaminated by POPs Pesticides in Vikuge, Tengeru and Morogoro in Pwani, Arusha and Morogoro regions 	Not indicated	Not indicated
		<p>Others</p> <p>None</p>	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
	GCLA	To eliminate stockpiles Not indicated	Not indicated	Not indicated
		To eliminate emissions Not indicated	Not indicated	Not indicated
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated
		Others Restrict importation and exportation of chemicals through registration and inspection of chemicals dealers	Not indicated	Not indicated
	NEMC	To eliminate stockpiles Identify, collect, package and shipped to safer disposal about 1000 tones of obsolete stocks of POPs pesticides and contaminated soil	Not indicated	Not indicated
		To eliminate emissions Not indicated	Not indicated	Not indicated
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated
		Others Not indicated	Not indicated	Not indicated
	MoHCDGEC	To eliminate stockpiles Not indicated	Not indicated	Not indicated
		To eliminate emissions To strengthen legal and institution framework for managing POPs and chemical pollutants	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
		<p>To establish mechanism to monitor POPs and other chemical pollutants</p> <p>To enhance transfer of technology to control POPs releases</p> <p>Enhance public information, awareness and education</p> <p>Routinely education to importers, sellers and public on the effects of DDT to human health and environment</p>		
		<p>To identify and remediate contaminated sites</p> <p>NIL</p>	Not indicated	Not indicated
		<p>Others</p> <p>NIL</p>	Not indicated	Not indicated
	MOA	To eliminate stockpiles	Not indicated	Not indicated
		To eliminate emissions	Not indicated	Not indicated
		<p>To identify and remediate contaminated sites</p> <p>Generally, to reduce/ eliminate POPs chemicals, strictly no POPs pesticides registration and importation are being allowed any more.</p> <ul style="list-style-type: none"> • Training • Strengthening Legislation and Enforcement • Development of exposure limits, standards & guidelines • Providing adequate ventilation to stores 	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
		and formulation plants <ul style="list-style-type: none"> Guiding stakeholders to avoid stockpiling (using the road map) 		
		Others Not indicated	Not indicated	Not indicated
	PORALG	To eliminate stockpiles Not indicated	Not indicated	Not indicated
		To eliminate emissions Not indicated	Not indicated	Not indicated
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated
		Others To undertake community sensitization on the effects of POPs on ecosystem and human health	Not indicated	Not indicated
	TFDA	To eliminate stockpiles Not indicated	Not indicated	Not indicated
		To eliminate emissions Not indicated	Not indicated	Not indicated
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated
		Others Avoiding use of POPs chemicals	Not indicated	Not indicated
	FCC	To eliminate stockpiles Not indicated	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
		To eliminate emissions Not indicated	Not indicated	Not indicated
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated
		Others Not indicated	Not indicated	Not indicated
	TPRI	To eliminate stockpiles	No response	No response
		To eliminate emissions	No response	No response
		To identify and remediate contaminated sites	No response	No response
		Others	No response	No response
	TANESCO	To eliminate stockpiles PCBs- TANESCO has stopped ordering and using new transformers using PCBs Has developed an action plan to phase out transformers with PCBs		Release of PCBs during fires, maintenance, leakage, exposure to PCBs to TANESCO technicians
		To eliminate emissions Stop ordering and using transformers and capacitors with PCB oil	Not indicated	Not indicated
		To identify and remediate contaminated sites TANESCO has already identified all sites with transformers and capacitors with PCBs, and collected them in temporary storage	Not indicated	Not indicated
		Others NIL	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
	TRA	To eliminate stockpiles NIL	Not Indicated	Not indicated
		To eliminate emissions NIL	Not indicated	Not indicated
		To identify and remediate contaminated sites NIL	Not indicated	Not indicated
		Others Allow consignment to be taxed after approval from relevant authorities like TBS, GCLA, TFDA, etc.	Not indicated	Not indicated
	DCC	To eliminate stockpiles NIL	Not indicated	Not indicated
		To eliminate emissions There is a plan to establish sanitary landfill, feasibility study to start this year, if agreed with donors	Not indicated	Not indicated
		To identify and remediate contaminated sites NIL	Not indicated	Not indicated
		Others NIL	Not indicated	Not indicated
	Ilala MC	To eliminate stockpiles Daily transportation of collected waste to the city dumpsite	Not indicated	Not indicated
		To eliminate emissions Regular inspection, subjecting sources of pollution into various environmental	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
		assessments Developed by-law on waste management		
		To identify and remediate contaminated sites NIL	Not indicated	Not indicated
		Others NIL	Not indicated	Not indicated
	Morogoro MC	To eliminate stockpiles Daily collection and disposal of municipal waste	Not indicated	Not indicated
		To eliminate emissions NIL	Not indicated	Not indicated
		To identify and remediate contaminated sites NIL	Not indicated	Not indicated
		Others NIL	Not indicated	Not indicated
	MVIWATA	To eliminate stockpiles Awareness of farmers about POPs and its effects to human and environment	2002 – To-date	Community/farmers exposure to POPs Pollution of environment caused by obsolete pesticide stockpiles and during pesticides application
		To eliminate emissions		
		To identify and remediate contaminated sites Not indicated	Not indicated	Not indicated

No.	Stakeholders consulted	Commitment reported	Timeframe	Nature of the problem
		Others Not indicated	Not indicated	Not indicated
	AGENDA	To eliminate stockpiles - Participated in the ASP which was undertaken by NEMC - Building Linkages between ASP NGO networks, donors and policy makers for a more sustainable future	2002 – To-date	Environmental pollution, pollution of resources
		To eliminate emissions Public awareness raising, promote policy and legal review, participate in NIP implementation and review	2002 – To-date	Environmental pollution, pollution of resources
		To identify and remediate contaminated sites Carried out sampling and testing of water, soil and sediment at sites in Vikuge village, Old Korogwe, Tanga region	2005 and 2009	Environmental pollution, pollution of resources
		Others Awareness and training to community in Vikuge village to avoid use of contaminated resources, training TOTs to manage pesticides Training of trainers on Stockholm Convention implementation in three zones in Tanzania Training community (Training of trainers) on NIP implementation in Ibofwe village Kilolo District and Pugu Kinyamwezi in Ilala Municipal	2008 – 2009 2007-2009 2017	Environmental pollution, pollution of resources

Appendix 3: Action Plan

Action plan for improving awareness and stakeholders engagement in NIP implementation

Here below is an action plan that has been recommended by stakeholders as to how to improve NIP implementation in Tanzania. It has considered the ideas just given above **BUT** only those focusing on awareness raising and stakeholders engagement since this is the focus of the report.

Table 3: Action plan for improving NIP implementation

No.	Action to be taken	Responsible/ Actor	Timeframe				
			1-6 months	7 – 12 months	13 – 18 months	19- 24 months	24+ months
1	To share the communication strategy with other actors	VPO-DoE	V				
2	Promote implementation of the national environment communication strategy (2014)	VPO-DoE, MDAs, LGAs and NGOs	V	V	V	V	V
3	Establishing and enhancing Multi-stakeholder coordination and networking mechanisms (platforms/fora)	VPO-DoE	V	V			
4	Enhancing institutional capacity particularly of Local Government Authorities (LGAs) in implementing environmental management related legal instruments	VPO-DoE and any other actor with resource		V			
5	Improve engagement of private sector	MDAs and LGAs	V	V	V	V	V
6	Enhancing capacity in information generation	All stakeholders	V	V	V	V	V

	and dissemination						
7	Disseminate NIP to public and actors	VPO-DoE and all stakeholders	V				
8	The Focal Point to inform stakeholders on the obligation to implement and report on NIP	VPO-DoE	V	V	V	V	V
9	Establish guidance on reporting and feedback on NIP implementation	VPO-DoE	V				
10	Stakeholders to report on NIP implementation to the Focal Point	All stakeholders	V	V	V	V	V
11	Decentralization of NIP from central government to local government as implementation body	VPO-DoE and PORALG	V				
12	Impart knowledge and skills on chemicals and waste management to schools and tertiary education	All stakeholders	V	V	V	V	V
13	Reviewing and updating policies and regulatory and institutional framework	MDAs and LGAs	V	V	V	V	V
14	Strengthen the capacity to regulate waste recycling and control use of non-biodegradable materials e.g. plastics	MDAs and LGAs	V	V	V	V	V

Appendix 4: Photographs



Figure1: Waste crude dumping at Morogoro Municipal dumpsite (photo by AGENDA)



Figure 2: Leachate at Morogoro Municipal dumpsite (photo by AGENDA)



Figure 3: Tires burnt at Morogoro Municipal dumpsite (photo by AGENDA)



Figure 4: Pile of municipal waste at Morogoro Municipal dumpsite (photo by AGENDA)



Figure 5: Open burning waste at Morogoro Municipal dumpsite (photo by AGENDA)



Figure 6: Stakeholders workshop participants (Photo taken by AGENDA)



Figure 7: A typical kiln at a healthcare facility (Photo by AGENDA)



Photograph 8: A typical kiln at a healthcare facility, door closed (Photo by AGENDA)

Appendix 5: Media publications



Figure 9: AGENDA staff captured on Television screen (photo by AGENDA)



Figure 10: Newspaper clipping