



2017:23

Sida Decentralised Evaluation

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Evaluation of ITP 299 – Strategies for Chemicals Management

Final Report

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August 2017**

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Sida Decentralised Evaluation 2017:23

Commissioned by Sida

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Date of final report: 31 August 2017

Published by Citrus 2017

Art. no. Sida62074en

urn:nbn:se:sida-62074en

This publication can be downloaded from: <http://www.sida.se/publications>

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Abbreviations and Acronyms

ASEAN	Association of Southeast Asian Nations
CAPDEV	Sida's Capacity Development Unit
CONASQ	National Commission on chemical safety
CLP	Classification, Labelling & Packaging
ECHA	European Chemicals Agency
EMA	Environmental Management Act
DDD	Disinfection, Disinsection, Deratisation
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GCLA	Government Chemist Laboratory Agency
GDP	Gross Domestic Product
HRBA	Human Rights Based Approach
ITP	International Training Programme
Keml	Swedish Chemicals Agency
MEAs	Multilateral Environmental Agreements
NEMC	National Environment Management Council
NGO	Non-governmental organisations
NPE	National Policy on Environment
PCB	Polychlorinated biphenyl
POPs	Persistent organic pollutants
REACH	Registration, Evaluation, Authorisation & Restriction of Chemicals
SADC	Southern African Development Community
SAICM	Strategic Approach to International Chemicals Management
Sida	Swedish International Development Cooperation Agency
SVHC	Substance of Very High Concern
TAIEX	Technical Assistance and Information Exchange
ToR	Terms of Reference
TFDA	Tanzania Food and Drug Authority
TPRI	Tropical Pesticides Research Institute
UNEP	United Nations Environment Programme
WTO	World Trade Organisation
ZEMA	Zambian Environmental Management Agency

Preface

This is the Evaluation of ITP 299 – Strategies for Chemicals Management. It was commissioned by Sida's Capacity Development Unit and carried out by NIRAS Indevelop.

Field visits were undertaken to Albania, Brazil, Serbia, Tanzania and Zambia.

NIRAS Indevelop's independent evaluation team consisted of:

- Ali Dastgeer, Team Leader
- Abigail Hansen
- Adriana Jalba
- Alicia Borges Månsson

The Project Manager at NIRAS Indevelop for this evaluation, Josefina Halme, has been responsible for compliance with NIRAS Indevelop's QA system throughout the process and quality assurance was performed by Ian Christoplos.

The team would like to thank all the respondents for their valuable contribution to the evaluation process.

Executive Summary

This is the final report of the evaluation of ITP 299 – Strategies for Chemicals Management. The main purpose of the evaluation was to “identify results, collect lessons learned and provide the Swedish Chemicals Agency (KemI) and Sida with recommendations for future programme design and implementation in order to further enhance sustainable, anticipated effects in the area of chemicals management and institutional capacity building”. KemI is the implementer of the project.

Eighty-two International Training Programme (ITP) participants from 10 countries were interviewed. Field visits were undertaken to five of these countries. A quarter of these participants graduated from the predecessor programme ITP 258 and were interviewed, as per the Terms of Reference (ToR), to assess possible network formations and results that may affect ITP 299.

The evaluation found the ITP to be a very relevant programme, efficiently executed and highly effective. The key findings and conclusions are as follows:

Relevance: Globally, chemicals management is a growing problem, having a detrimental effect on the environment and quality of life. The ITP objectives have been relevant and in line with the policies of the governments and international conventions regarding chemicals management, and in line with participants’ work. In Europe, the catalyst for enhanced chemicals management has been largely the need to harmonise laws and systems in preparation for EU accession. In Africa and Asia, it has been the need to curb the effects of indiscriminate use of pesticides and other chemicals. Cross-cutting issues, including human rights and corruption, are also of particular relevance to chemicals management in those regions.

Efficiency: Overall, participants have benefited from gaining more in-depth knowledge and have more comprehensive understanding now of chemicals management. They have expressed immense satisfaction with both the courses’ content and how they were conducted. Participants have come back to their countries to make great use of what they have learnt and apply that in change management projects. The change management projects have been relevant and have generally yielded positive results in the span of time allocated to them. Participants have also learnt useful communication and project planning skills. The visits outside the lecture rooms to sites were stated to be both interesting and informative. The mentorship aspect was seen as a particularly beneficial part of the programme.

Effectiveness: Important results have been attained in terms of increased individual knowledge and institutional capacity to foster discussions and strategies on chemicals management. Where change management projects have not yielded expected results,

significant reasons include the indifference of the government or senior management, the lack of capacities and resources, and the relative inexperience of the ITP participants.

Almost all participants implemented their projects, but with varying degrees of success. A number of projects targeted factories and farms producing effluent, and were successful in awareness raising and reduction of the discharge of waste. Institutions are making use of the knowledge and tools acquired to make organisational changes and move the discussions forward. There have also been both major and minor legislative changes, and initiation or improvement of national chemicals management systems. There is also now greater collaboration between government and the private sector. Where Keml has in parallel been implementing bilateral cooperation projects, support and mentoring has continued for ITP participants and their colleagues. The effectiveness of change management projects has been more pronounced because of opportunities for synergies between the projects and the work being undertaken under the bilateral cooperation.

Despite the general positive results, there is a common opinion that the cross cutting issues were not sufficiently covered by the ITP. This is reflected in the participants' difficulties in relating chemicals management to poverty reduction, gender, human rights, and anti-corruption.

Impact: While broader and deeper impact will take time, there are already pockets of impact emerging with better monitoring occurring, handling of chemicals in the private sector and agricultural lands being improved and use of it becoming more judicious or being eliminated.. Resource constraints, though, hamper beneficiaries' ability to produce more profound impacts.

Sustainability: There has been limited networking and experience sharing, and the development of a desired 'critical mass' of ITP alumni. Even though organisations have gained much knowledge, this will need to be complemented in the future, as the new changes and regulations will bring new challenges, and the Swedish experience can help in meeting them. Generally, in the countries visited, there is relatively low staff turnover in targeted institutions, which make prospects of retention of knowledge within the institutions brighter.

The evaluation's main recommendations are:

- 1) The participants should be provided with knowledge of how to use human rights issues as leverage in order to advocate for internal or policy change, and awareness raising (of citizens or the private sector). In addition, the cross-cutting issues need to be better integrated in the ITP so as to provide the participants with tools to work with them in practice.

- 2) The ITP should increase focus on building an understanding of how the collaboration and inter-institutional work at national level is essential for any change process to succeed. In addition, KemI should encourage a focal point per country to support such networking and information sharing.
- 3) KemI should enhance its monitoring and tracking capacities, so that it can document impact and lessons learnt, as well as proactively foster networking amongst former ITP participants.
- 4) There should be more opportunities for universities and research institutes to apply and be recruited for future rounds. Non-governmental organisations (NGOs) working at the grassroots, should also be inducted as they play a useful role in public awareness raising which can be important to stimulate public policies and reforms.
- 5) The ITP methodology should be further improved by having two modules: one with the general information on chemicals management and another module covering more specific topics according to the specific interests and needs of the participants.

1 Introduction to the Evaluation

1.1 GENERAL

Chemicals such as toxic pollutants, heavy metals, pesticides and toxic substances found in drinking water, soil, air and food have an adverse effect on many sectors of society, and hence sound and sustainable chemicals management is of great significance for public health, the environment and socio-economic development. Global agreements, such as the Stockholm and Rotterdam Conventions, have strengthened the position of chemicals management on many developing countries' agendas. Further, as a result of a global UN recommendation, the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) was developed, and is an important milestone in the development of country and regional chemicals management.

Sweden's policy for global development integrates environmental sustainability as one of its key components. It considers sustainable use of natural resources and protection of the environment as the necessary condition for sustainable development, and makes a clear link to poverty: *"Poverty arises and persists where pollution undermines people's livelihoods and health. The rural poor, especially women, are hit particularly hard when ecosystems are depleted due to soil degradation, water scarcity, pollution, deforestation or other environmental impacts"*. This stresses the importance of supporting development partners in integrating environmental sustainability into their legislation, strategies and practices.

1.2 THE INTERNATIONAL TRAINING PROGRAMME

The field of sustainable chemicals management and institutional/ organisational capacity development is a priority area for Sida, and the agency's Capacity Development Unit (CAPDEV) and the Swedish Chemicals Agency (KemI) have been collaborating on the organisation of International Training Programmes (ITPs) since 2006. In that year, Sida signed an agreement with KemI to implement an international training programme (ITP 258 Strategies for Chemicals Management) directed to Sida's partner countries for the years 2007-2011. The Programme was followed by ITP 299 Strategies for Chemicals Management 2012-2017, which is the focus of the current Evaluation.

The ITP built on the understanding that poor and vulnerable populations are at higher risk of exposure to harmful chemicals and toxic waste, and focused on areas for capacity building within chemicals management in international development cooperation, in line with international commitments and policy frameworks, in particular the Strategic Approach to International Chemicals Management (SAICM).

The overall objective of ITP 299 was to provide participating countries with further insight into the relation between good chemicals management and the supply-and-use chain, economic growth and improved human health and environmental quality. The mid-term objective was to contribute to organisational change, in which participants use the knowledge and tools gained from the Programme to develop legal and institutional infrastructures for preventive chemicals management on a national level.

The Programme was conducted in nine rounds, and included a total of 217 participants. Each round was structured in five phases, and the planning and implementation of “change management projects” was an integral part of the Programme, the purpose of which was to “*increase the applicability of the programme, ensure that participants can connect lectures, field trips and methodology to their own work situation, and increase the impact of the training programme*”.

The five phases of each round are:

Phase 1: Preparatory phase: A short report on a) current situation with chemicals management in participant’s country, b) idea of the change management project

Phase 2: Training course in Sweden: 3 ½ weeks training at KemI

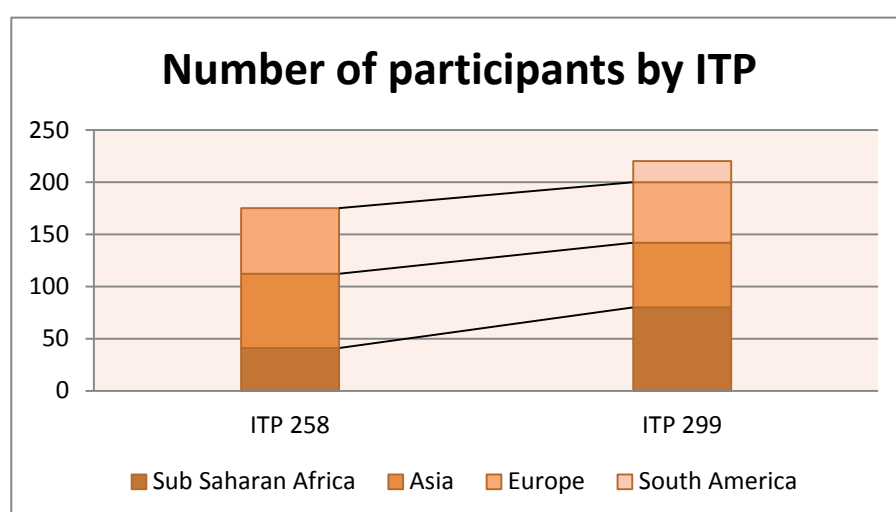
Phase 3: Interim period: Working on change project in home country

Phase 4: Regional seminar in one of the countries, with study visits and guest lectures

Phase 5: Follow-up period (optional): 3 months of support from mentors from KemI.

The number of rounds, participants and regions – but not countries – increased in ITP 299 compared to ITP 258.

Figure 1.



Gender-wise there remained a reasonably healthy balance of males and females in both ITPs with females comprising close to three-fifths of the participants in both programmes.

Figure 2.

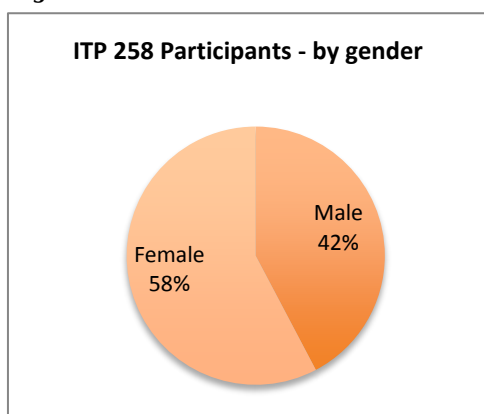
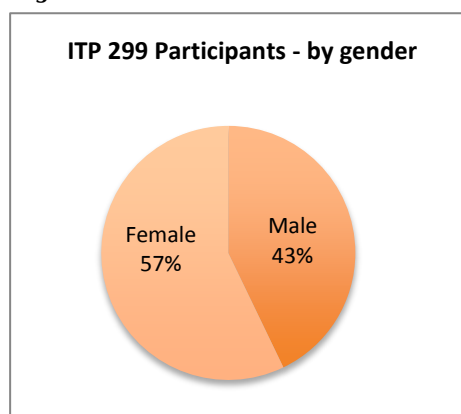


Figure 3.



1.3 THE EVALUATION

The purpose of the current Evaluation is to “*identify results, collect lessons learned and provide KemI and Sida with recommendations for future programme design and implementation in order to further enhance sustainable, anticipated effects in the area of chemicals management and institutional capacity building*”.

The recommendations emerging from the Evaluation are also to serve a learning purpose for stakeholders. The Evaluation was to encompass the results of ITP 299 and to a lesser extent those of ITP 258. The inclusion of ITP 258 was so that results and lessons regarding building of a ‘critical mass’ by an accumulated number of participants and formation of a possible network could be gleaned. KemI and Sida selected the ten case-study countries (Brazil, Albania, Serbia, Tanzania, Zambia, Bosnia and Herzegovina, Vietnam, Kenya, Moldova and Myanmar) since they have been prioritised for a new capacity development programme. Country visits were conducted in Brazil, Albania, Serbia, Tanzania and Zambia, while discussions using Skype and telephone were held with the remaining five countries.

Sida and KemI provided numerous documents throughout the Evaluation process, including *inter alia* the Sida service agreement with KemI, various external evaluations and responses, annual reports, reports for certain rounds, and participants’ responses to questionnaires. While KemI provided substantial information, the Evaluators also sourced other key documents, notably legislation, regulations, policies and strategies in each of the countries examined (see Annex 3). KemI also provided the names and contact details of all ITP participants, as well those of their parent organisations, and their chosen change management projects.

The Inception Report submitted in March 2017 outlined in considerable detail the identified gaps in documentation, and the specific areas that required further examina-

tion as part of a full document review and during the field and analysis phases. The theories of change upon which the ITP were developed, and the evaluation questions and tools that were to be utilised in interviews were also elaborated as an essential component of the Inception phase.

Following completion of the field phase, a progress report detailing the findings from all five visited countries was submitted to Sida which shared it with KemI. As the progress report includes specific findings, conclusions and recommendations per country, some of which may have not find their way to this main report, it is reproduced in Annex 4.

1.4 EVALUATION METHODOLOGY

The Evaluation aimed, through extensive data collection, to measure the quality of processes, outputs and outcomes. A core assumption in this analysis is that the ITP has a sphere of control related to individual capacity development, it has a sphere of influence over organisational development and institutional change, and it has a sphere of interest over improved chemicals management in the country.

The methodology is based on a theory-based approach to evaluation. This means that the Evaluation team understands the ITP approach to be based on a theory regarding how capacity development efforts, awareness raising, change management projects and building of networks and critical mass within the chemicals management sector will lead to better policies and legislation, improved supervision and enforcement, and increased public awareness. This will contribute to better management of chemicals and ultimately a better environment and standards of living for all, especially the poor. In a theory-based approach the extent to which the cause and effect assumptions in this theory are valid and leading to intended results are assessed, with a focus on the issues raised in the evaluation questions.

The Evaluation adopts a contribution analysis approach, recognising that there are alternative explanations for the changes observed and that the project is but one contribution to a broader process of better chemicals management. In a number of countries, KemI also has its own bilateral programmes e.g. in Serbia targeting some of the same institutions who have been part of the ITP. Then there are other players beyond Sweden such as the United Nations Environment Programme (UNEP), Strategic Approach to International Chemicals Management (SAICM) and the European Chemicals Agency (ECHA). Thus, there are some outcomes which cannot be attributed to the ITP alone; and while the Evaluation endeavours to isolate the effects of the ITP, it should be realised that in some cases, the ITP will have contributed jointly with other efforts to the results that have been realised.

Processes such as monitoring and evaluation, the quality of training, recruitment of applicants and the mentorship aspects were measured through semi-structured interviews of participants and KemI mentors and advisors. Quantitative data regarding outputs (e.g. numbers trained, agencies, countries) were obtained from KemI. Out-

comes (expected results lying within the ITP's sphere of influence) were measured from semi-structured interviews and focus group discussions with participants and their superiors. In addition, the issue of relevance was discussed with participants, organisations and ministries, and supported by a review of national policies and strategies. The tools that were developed during the Inception phase were intended to capture the various outcomes that may have been realised in different contexts.

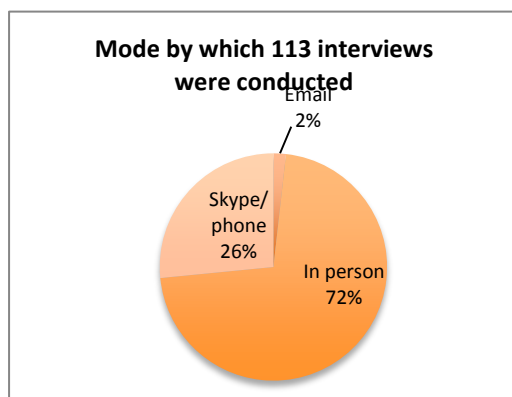
Prior to the country visits and interviews, the Evaluation team conducted detailed meetings with relevant KemI staff, and in-country contact persons were identified. Discussions were also conducted with Swedish Embassies in all the five visited countries. During the field visits, the Evaluators organised meetings with ITP participants, participants' supervisors, and various ministries. The Evaluators strived to ensure that there was balanced representation of gender amongst ITP participant interviewees. The field visits to the five countries took place in April and May 2017.

During the country visits, and depending upon the number of training participants in the organisation visited, data collection was done either through key informant interviews or group discussions. Group discussions consisted of a maximum of four training participants. Whilst originally only capital cities were targeted for visits, some Evaluators conducted short field visits to sites of particular relevance to the Programme and its impacts.

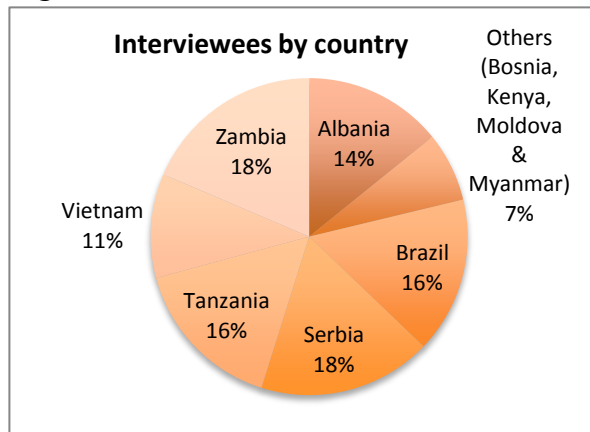
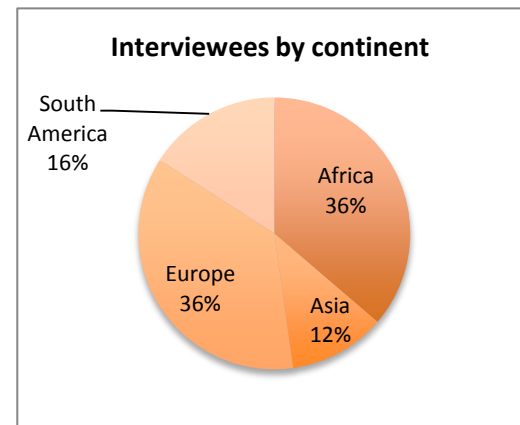
1.5 PROFILES OF RESPONDENTS

In total, one hundred and thirteen (113) people were interviewed from 10 countries including ITP participants and others. Five of these countries were visited: Albania, Brazil, Serbia, Tanzania and Zambia, while participants from another five countries were contacted by skype or telephone, and in the case of two respondents, by email. The number and percentage interviewed by the type of communication is given in figure 4. Of the interviews conducted by Skype, the best response was from Vietnam.

Figure 4.

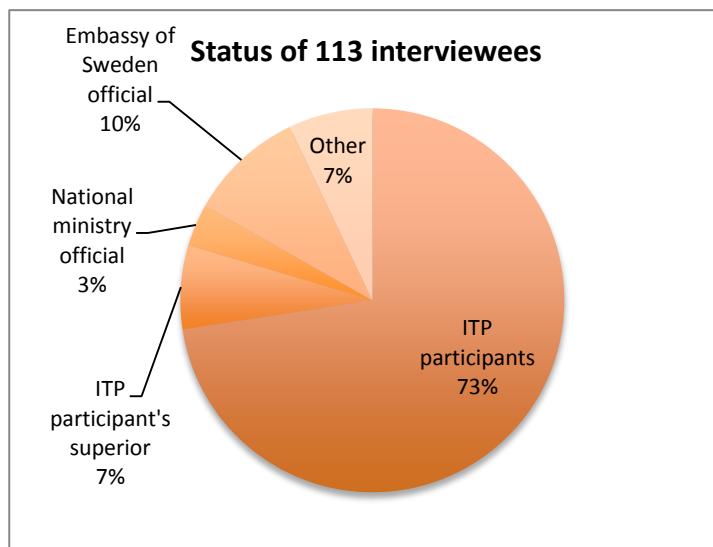


The lack of current contact details, non-responses, unavailability of the participants (due to travel abroad, maternity leave, holidays, etc.), and other factors led to poor responses from other countries. A few declined as they were hesitant to be interviewed in English. It should be noted though that the total number of ITP participants in Kenya and Myanmar is small anyway standing at six and four respectively.

Figure 5.**Figure 6.**

T

The overwhelming majority of persons interviewed were ITP participants, other interviews included the superiors of the ITP participants, heads of their organisations or ministry officials. Embassy of Sweden officials were met in all five countries visited. It should be noted that in many cases, the ITP superior is also a national ministry official, but was placed in the former category.

Figure 7.

In terms of their gender, of the 82 ITP participants interviewed, 49 were female and 33 were male. This is in the same ratio as that of all 395 participants who have participated in the two programmes.

As the Terms of Reference (ToR) of the evaluation stated that a proportion of interviewees should be from the ITP 258 batch, of the 82 ITP participants, 21 were drawn from ITP 258 and the remainder were from ITP 299.

Figure 8.

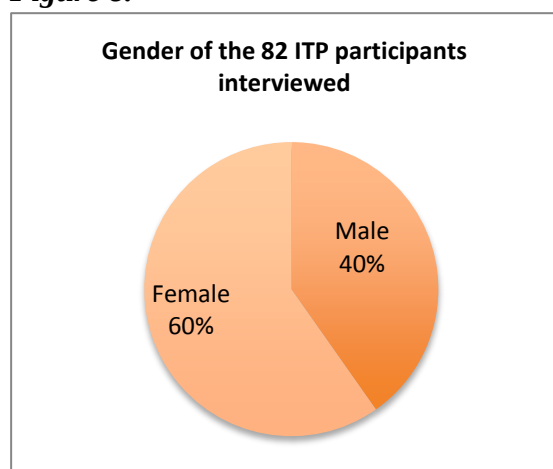
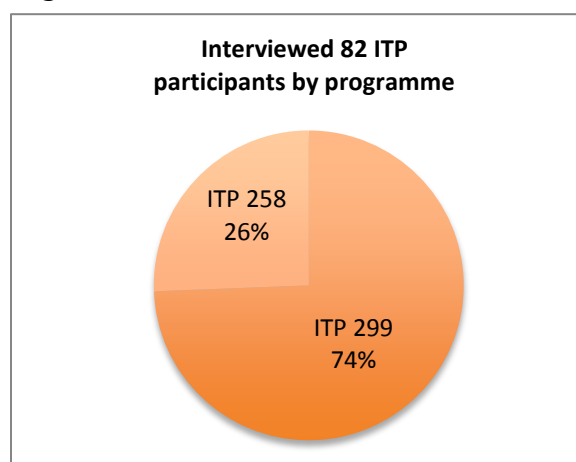


Figure 9.



2 State of Chemicals Management in Visited Countries

Developing countries aim to achieve poverty eradication and development goals while ensuring a sound policy framework for chemicals management. In this context, the increasing variety of chemicals and the complexity of the chemicals supply chains and their waste streams constitute serious concerns.

The countries covered by this Evaluation are facing pressing needs to achieve development, national security and poverty eradication objectives. However, they are at different stages of economic development, as well as at different stages of developing their chemicals management schemes, with different short and medium term objectives and strategies.

2.1 SERBIA AND ALBANIA

The main driver for policy reform in Serbia¹ and Albania² is their ascension and integration to the European Community. Tanzania³ and Zambia⁴ are striving to fulfil their Development Visions by 2025 and 2030 respectively, whereas Brazil is pushed both by the significant growth⁵ of the chemicals sector, which in 2015 accounted for 2.5% of Gross Domestic Product (GDP), but also by the commitment to achieving the targets of the UN Sustainable Development Goals by 2030⁶.

Serbia and Albania are moving towards an integrated approach, making efforts to harmonise with EU Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and connected legislation (mainly the Biocidal Products Regulation).

Serbia started the alignment of national legislation with the EU *acquis* in 2008⁷, whilst preserving the coherence of the domestic legal system. To date, the country has

¹ https://ec.europa.eu/neighbourhood-enlargement/countries/detailed-country-information/serbia_en

² https://ec.europa.eu/neighbourhood-enlargement/countries/detailed-country-information/albania_en

³ <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>

⁴ http://theredddesk.org/sites/default/files/087_vision_2030_a_prosperous_middle-income_nation_by_2030_1.pdf

⁵ <http://www.abiquim.org.br/pdf/livreto-de-dados-2016-paginas.pdf>

⁶ <https://sustainabledevelopment.un.org/memberstates/brazil>

⁷ <http://www.info-evropa.rs/wp-content/uploads/2016/06/guidelines-and-methodology-web-verzija-eng.pdf>

transposed the relevant parts of REACH, namely a centralised system to register the chemicals on the market that are subject to registration in the European Community, as well as provisions related to REACH restrictions, Substances of Very High Concern (SVHCs) and the Classification, Labelling and Packaging (CLP) Regulation. In the 2016 European Commission report on EU enlargement⁸ it is noted that Serbia has achieved a high level of alignment with the *acquis* on chemicals and that there are functional implementing structures in place, but that more efforts need to be made, particularly in enhancing the administrative capacity. The national register is seen as an intermediary step to alignment with the EU REACH registrations, as the centralised procedures are currently not applicable to non-EU countries. In terms of institutional structure, Serbia established a Chemicals Agency in 2010. It was mandated to centralise information on industrial chemicals and act as helpdesk for the economic operators. Following a series of ministerial re-organisations, the Agency was abolished and the mandate on chemicals management is now with the Department for Chemicals under the Ministry of Agriculture and Environmental Protection.

Albania is partially aligned with EU requirements on REACH and connected chemicals regulations such as classification and labelling, export and import of dangerous chemicals or biocides. The framework law on chemicals management was adopted in March 2016, after a series of World Trade Organisation (WTO) notifications on registration of chemicals, SVHC authorisation, Global Harmonised System and international trade of dangerous chemicals. Under the EU-funded Technical Assistance and Information Exchange (TAIEX), an expert from KemI supported the Ministry of Environment in the drafting of the laws related to chemicals management during 2015 and 2016. The chemicals management legislation aligning with the EU rules has been adopted and it is expected to enter into force in March 2018, repealing the existing legislation. A Chemicals Office was set up within the Ministry of Environment and it is mandated to implement the new legislation. According to the 2016 European Commission report on enlargement, however, Albania still has to strengthen the administrative and inspection capacity⁹. Most of these legislative provisions have not yet been implemented. Albania does not have a national chemicals inventory, a national register for chemical substances or preparations, or a poison centre. To date, the traceability of the movement of chemicals (mainly imports) is done via the customs office and through tariff codes. The economic operators are not aware of their obligations under the chemicals legislation, and there are no enforcement mechanisms, no national contact point and no national helpdesk. The territorial inspections cover mainly conformity checks (if the stocks are consistent with what was declared at the

⁸ https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2016/20161109_report_serbia.pdf

⁹ https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2016/20161109_report_albania.pdf

customs).

With regard to domestication of Multilateral Environmental Agreements (MEAs), both Serbia and Albania have ratified or acceded to the Minamata Convention¹⁰, the Basel Convention¹¹, the Rotterdam Convention¹² and the Stockholm Convention¹³. Serbia acknowledges the existence of limited Persistent organic pollutants (POPs) stockpiles¹⁴, mainly polychlorinated biphenyls (PCBs) imported in the past, whereas Albania does not currently have significant POPs stockpiles, as the obsolete pesticides stocks were removed and neutralised in 2006 with the support of the Dutch government¹⁵. The implementation of chemicals management legislation requires inter-institutional agreement and cooperation, and both countries report that overlapping mandates among several ministries and other state agencies are a challenge. Nevertheless, Serbia has seen significant progress in implementing the chemicals management legislation compared to Albania.

2.2 ZAMBIA AND TANZANIA

Fragmentation of mandates across several government institutions, a sectoral approach and lack of alignment are also important obstacles toward an integrated and sound chemicals management policy in Zambia and Tanzania. Both countries have long term development and poverty eradication strategies, linked to the UN Sustainable Development Goals and Agenda 2030, including inter alia environment, mining or agriculture, indirectly addressing chemicals management¹⁶. Zambia adopted a National Policy on Environment 2007 (NPE) which contains provisions concerning chemicals within the agricultural sector. Zambia also adopted the Environmental Management Act 2011 (EMA), consolidating a number of laws relative to chemicals, waste management and environmental impact, and imposing criminal sanctions for certain violations. This policy and legislative structure supports and complements broader national policy, and notably Vision 2030¹⁷, the seventh national development plan, which emphasises the essential role of training and skills development to further the country's broader social, economic and regional objectives.

¹⁰ <http://mercuryconvention.org/Countries/tabid/3428/language/en-US/Default.aspx>

¹¹ <http://www.basel.int/Countries/StatusofRatifications/PartiesSignatories/tabid/4499/Default.aspx>

¹² <http://www.pic.int/Countries/StatusofRatifications/tabid/1072/language/en-US/Default.aspx>

¹³ <http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx>

¹⁴ www.pcbsserbia.rs/en/stokholm-convention

¹⁵ www.pops.int/documents/implementation/nips/submissions/Albania.pdf

¹⁶ <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>;

¹⁷ http://theredddesk.org/sites/default/files/087_vision_2030_a_prosperous_middle-income_nation_by_2030_1.pdf

The Zambian Environmental Management Agency (ZEMA) centralises policy development and implementation in the area of chemicals management. Its mandate, responsibilities, and powers are formalised under the EMA. ZEMA actively works with all of the related sectors, in particular the health, water, energy, mining, agriculture, and transportation sectors. Key partner institutions relative to chemicals management are the Bureau of Standards, the Drug Enforcement Agency, and the Customs and Border Police. The lead ministries responsible for chemicals management in Zambia are the Ministry of Natural Resources and Environmental Protection, the Ministry of Agriculture and Livestock and the Ministry of Health. ZEMA also works directly with the Ministries of Home Affairs, and Mines and Minerals Development. These Ministries work in close collaboration with all other stakeholders.

Tanzania's main chemicals legislation is covered by the National Environment Policy 1997, the National Environmental Management Act 2004 and the Environmental Management Regulations 2009. These legislations all include provisions for management and control of toxic chemicals from importation to end use, as well as disposal of chemical waste. The approach to chemicals management in general is sectoral, whereby government institutions focus on chemicals used in the sectors for which they are responsible. For example, agrochemicals are registered and managed by the Tropical Pesticides Research Institute (TPRI), food preservatives and additives by the Tanzania Food and Drug Authority (TFDA), consumer and industrial chemicals are managed by the Government Chemist Laboratory Agency (GLCA), and chemical waste and emissions from industrial sources are handled under the National Environment Management Council (NEMC). The most significant policies, legislation and regulations touching upon chemicals management are the Industrial and Consumer Chemicals Management and Control Act 2003/Industrial and Consumer Chemicals (Management and Control) Regulations 2004, Occupational Health and Safety Act 2003, Mineral Policy 2009/Mining Act 2010/Mining Regulations 2010, National Health Policy 2007, Food, Drugs and Cosmetic Act 2003, Tropical Pesticides Research Institute Act 1979/Pesticides Control Regulations and Fertiliser Act 2009. This policy and legislative structure supports and complements broader national policy, and notably the National Strategy for Growth and Reduction of Poverty¹⁸, which is a vehicle for achieving the objectives of the Tanzania Development Vision 2025¹⁹.

Zambia and Tanzania have both ratified the MEAs mentioned above and have domesticated most of the provisions of these. Tanzania has already introduced special provi-

¹⁸ <http://www.mof.go.tz/mofdocs/DPE/MKUKUTA%20II%20English.pdf>

¹⁹ <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>

sions in the Industrial Chemicals Act, whereas Zambia is still working to implement special provisions, particularly related to the PCB 2025 deadline. Issues relative to mercury are given priority in both countries, given their importance for the mining sector. Both countries still require considerable financial and technical support in order to fully comply with the MEAs that they have ratified.

2.3 BRAZIL

The significant growth of the chemical industry in Brazil constitutes one of the main drivers toward implementing a sound chemicals management framework. Currently, the chemicals management approach is more sectoral, with policies covering specific applications and uses of chemicals, such as pesticides, wood preservatives, food additives, cosmetics, pharmaceutical products, explosives, etc. The responsibilities for these policies are fragmented at federal, state and regional levels, which, as in the previously mentioned countries, constitutes an obstacle in integrating the chemicals management at the national level. Federal or state agencies can establish specific normative instructions in order to promote safety in the production, trade, use and disposal of chemicals. States and municipalities can make their own rules and that can be more restrictive than the federal government, but they must respect federal regulations. Overall, Brazil lacks a unified and functional system to manage the risks associated with manufacturing, import and use of industrial chemicals. Because of the sectoral approach, the mandates are shared among various ministries and governmental agencies, such as Occupational Safety and Labour, Health, Environment, Industry, Transport, Agriculture, Science and Technology, Foreign Affairs and others, each one with its respective institutional competence.

Brazil has taken steps towards the development of strategies for the internalisation and localisation of the 2030 Agenda²⁰. With respect to chemicals, a proposal for a draft law that aims to broadly regulate dangerous industrial chemicals was subject to public consultation from June to September 2016. The draft law takes elements from EU REACH and the Canadian chemicals management scheme and aims at creating a national industrial chemicals register. The draft law has provisions for prioritising risk assessment of substances that fall under the EU criteria for SVHC²¹. The draft law has not yet been enacted – the Ministry of Environment publicly acknowledged that the Brazilian government does not yet have the capacity to conduct risk assessments of chemicals²². It is expected that the draft law will be sent to the Congress by the end of 2017.

²⁰ <https://sustainabledevelopment.un.org/memberstates/brazil>

²¹ Translation in English by Chemical Watch - https://members.wto.org/crnattachments/2016/TBT/BRA/16_3202_00_e.pdf

²² <https://chemicalwatch.com/48729/brazil-maps-out-plans-for-industrial-chemicals-policy>

Brazil has ratified the MEAs mentioned above. In 2015 Brazil elaborated a National Implementation Plan for the Stockholm Convention and a National Plan for implementation of the Minamata Convention. However, some actions to restrict or prohibit chemicals remain limited due the lack of a comprehensive national chemicals management framework. The new legislative draft contains a few provisions addressing the enforcement of the MEAs in Brazil. In February 2017, at an international meeting, The Brazilian Minister of Environment acknowledged that while Brazil has made progress toward the 2020 goals, there is still much to be done in terms of chemicals control, including further implementation of the UNEP Conventions, as well as capacity limitations and lack of clear rules to assess the risk of chemicals²³.

²³ <http://www.brazilgovnews.gov.br/news/2017/02/brazil-defends-chemical-safety>

3 Findings

3.1 RELEVANCE

The five countries where field visits were conducted for the ITP 299 evaluation are at different stages of economic development and also at different stages of implementing chemicals risk management measures. With the exception of Brazil, these countries are primarily importers of chemicals and not significant producers. The chemicals most actively imported are agricultural chemicals and pesticides used in farming, and, particularly in Zambia and Tanzania, chemicals for use in mining and precious metals extraction.

Today, with the increase in consumption of a wide range of products, agrochemical formulations have become a significant vehicle for movement of chemicals with a particular hazard profile and properties, but also a significant source of health and environmental concerns, due to their widespread use.

From an economic point of view, Albania and Serbia are very different. They are, however, both driven by the same desire to align with the EU framework. In Serbia, the chemicals industry currently accounts for 10.5% of the industrial GDP, mainly through plastics and rubber manufacturing. Albania's economy, on the other hand, is based mostly on services and agriculture, and the size of the manufacturing industry is not significant. This context explains why the participants in Serbia focused more on creating a registration system and preparing for REACH alignment, whereas the Albanian participants focused more on registration of agrochemicals, and awareness of their use.

While Serbia had a functional, dedicated organisational structure for chemicals management in place at the time of the ITP training, the participants from Albania were spread among various ministries and governmental agencies with no common agenda or priorities. As a consequence, Serbia advanced more quickly with the practical implementation of certain chemicals management measures than Albania. In Albania, the progress of the change projects was slowed down by the positions of the ITP participants and the priorities of their respective institutions. Overall, both Serbian and Albanian ITP participants acknowledged that institutional and technical capacity building is still required in order to advance the alignment with the EU framework. They also mentioned practical learning about the enforcement and compliance inspections in the EU Member States as key for change.

The ITP 299 Programme was generally highly relevant to the policy, legislative and institutional frameworks in Zambia and Tanzania, and is strongly aligned with stakeholder needs in the country, in particular in regions with a strong implication in the mining and agricultural sectors, or near transit zones or routes. Interviewees overall

reported a high degree of pertinence to their own work, however it is observed that they were not directly consulted or involved in the development of the overall curricula or course contents, nor in the profiling and selection of participants, which would have allowed for a greater degree of individual and institutional relevance. However, the training fully addressed specific issues of concern raised by participants in the country reports prepared in the context of the programme, notably relative to chemicals risk management, disposal of chemical waste and regulation of small-scale chemical dealers.

The ITP participants acknowledged that the Programme contributed to their individual base knowledge development. It also helped them change their mind-set and advance change in their respective countries. With respect to the change projects, similarities with Serbia and Albania were observed, in the sense that the position of the individual participant and the priorities of their institution strongly impacted on the success and the progress. The participants from ZEMA (Zambia) and GLCA (Tanzania) stated that their projects were successful because they were designed with an immediate institutional challenge or need in mind. The modules on enforcement were highly valued by ZEMA and GCLA because of their specific role as inspectors.

Overall, the participants indicated that for the African context, the cross-cutting issues such as corruption, transparency and integrity were direct and highly relevant concerns for inspectors and other enforcement agencies. However, while the Programme on certain occasions contributed to their knowledge-base, this was not provided in a systematic manner, and furthermore failed to provide them with sufficient tools or resources to respond to challenges in practice.

Stakeholders (including staff at Swedish Embassies) are of the view that chemicals management is of growing concern in the African region, and hence the relevance of support, including training and technical assistance, will continue to increase over time. In Zambia in particular, with the decline in metal prices and therefore revenue in recent years, there is a risk that the considerable gains made in chemicals management would be lost if it and related environmental, health and other issues do not remain prioritised. Stakeholders there and in Albania and Serbia indicated a need to focus on emerging issues, such as disposal of articles that contain hazardous chemicals (electrical and electronic waste) and empty pesticide containers, which constitute growing challenges in the region. Capacity building and technical expertise in the area of MEA provisions implementation was also indicated as a key need.

Capacity building and technical expertise was also indicated as a key need in Brazil by the ITP participants. They stated that the Programme overall was relevant to the needs and priorities of the relevant stakeholders. They believe the objectives of the ITP are very much in line with national policies and strategies as reflected in the Programme of Environmental Quality in the Federal Multiyear Plan.

With respect to the content, the Programme corresponded to the knowledge gaps of the individual participants and their respective organisations. The country is increas-

ing efforts to propose strategies and actions related to chemicals management, so they welcomed the ITP and considered it as a strong tool to improve the technical capacity of the participants, and to develop their current activities related to chemicals management. The change projects were considered of great importance as they provided an opportunity to develop projects directly relevant to the needs of the organisations. As in the other countries (and the experience with ITPs more generally), the success of the change projects depended very much on the position of the individual participants in their organisation, as well as the priorities of their organisation.

In regards to Sida's Human Based Rights Approach (HRBA), this Programme is very relevant. Many of the countries supported by the Programme face multiple serious human rights concerns relative to chemicals management, including relative to life, health (including occupational health), food, water and sanitation and the environment (all of which affect women and children in particular). It is noted that chemicals management in many of the observed countries intersects with industries or sectors that are already particularly vulnerable to rights violations, and in particular the mining, textile and agricultural industries. The implications of toxic chemicals on human rights are enormous, in particular the vulnerability of children, poor and marginalised communities, indigenous peoples, and other vulnerable populations to disproportionate levels of exposure to toxic chemicals. Chemical use or exposure may threaten sustainable development through harm to health and environment, often to entire communities, with any negative impacts being disproportionately borne by poor communities, who are more likely to live in at-risk areas, and lack social, political and economic power to prevent harm, or ensure accountability by authorities or other non-state actors, including the private sector.

3.2 EFFICIENCY

3.2.1 Recruitment

Over the years, KemI has had to rely less on the Swedish embassies to publicise the ITP for recruiting applicants. As it has developed its network of partners and associates (for example in South Africa, Brazil and Serbia), and as the number of participants attending previous rounds has grown, KemI has been able to rely upon them to disseminate information. In interviews, this has been obvious. ITP participants who attended earlier rounds mentioned scouring the internet or approaching the Swedish embassy in their country for information. More recent participants stated that their superiors, colleagues or friends (themselves former ITP attendees) had encouraged them to apply.

At the same time, KemI has narrowed its focus to target more strategic institutions in target countries. This is the case for example in South Africa and in Serbia. To address the need of regional cooperation in development of chemicals management, it has also taken into account participants from relevant organisations in, for example, the Southern African Development Community (SADC) and Association of Southeast Asian Nations (ASEAN) countries. This is the case in countries such as Namibia,

Mozambique and Indonesia.

The fact that the ITP 299 has been a five-year period with two programmes a year (except for 2012), has made the communication and planning (and therefore the recruitment) of the programmes better due to improved long-term planning both for KemI and the possible participants.

Selection of participants has also improved, and factors given increased weight, compared to ITP 258, include employee's function and mandate, and degree of support from the employer and relevance in national development of chemicals management. Despite this, there have been cases where junior staff has been admitted, as was the case in Albania.

3.2.2 Design of change projects

KemI has increased its focus on the design of change projects. KemI mentors have been trained in project management; the participants may be in touch with the mentor prior to the phase in Sweden; and the preparatory work is made in a more structured manner. In numerous cases, the Evaluation can confirm that original concepts were redesigned, when the participants were in Sweden, with the support of their mentors. The projects were made more manageable, results-oriented, relevant and strategic. The module on project management greatly assisted participants to refine their projects, including making provisions for measuring the results and logically structuring them. In a number of cases, mentors suggested participants from the same country to collaborate on one project, dividing responsibilities amongst themselves according to their mandates and expertise. An example of this is from Albania. The project was on awareness raising on chemicals in toys, which three ITP participants undertook as a team on the suggestion and with the guidance of KemI. The three shared the tasks according to their respective areas of expertise / professions. One was responsible for testing as she worked in the laboratory of the Directorate General of Customs, the second was responsible for legislation as she worked in the legislation department in the Ministry of Economy and the third for awareness raising as she was engaged in an NGO.

3.2.3 Implementation

Overall, participants stated that they learn a lot about chemicals management: risk and hazards assessment, the management of pesticides and GHS, project implementation, biocides, how chemicals management is undertaken in Sweden and and so on. The European participants also specifically mentioned knowledge gained about EU policy and legislation regarding chemicals management and the European Chemicals Agency (ECHA).

Over the years, KemI has interspersed lectures and group work with presentations from guest speakers (from industry and the public sector) and with tours to relevant sites in Stockholm and elsewhere in Sweden. Notable visits mentioned included those

to the Swedish Poisons Information Centre in Stockholm, the Coca-Cola bottling plant in Kiev in Ukraine during the European regional phase, SCANIA - the Swedish automotive industry manufacturer of commercial vehicles, Sakab which is one of Sweden's leading environmental company in the field of non-toxic waste recycling, Uppsala University and municipalities and a paints and varnishes company. Talks by representatives of the Swedish Environmental Protection Agency, Swetox, which is the Swedish Toxicology Sciences Research Centre, and the Swedish furniture and home appliances manufacturer and retailer IKEA were described as interesting and informative.

Regarding the length of the course, overall it is considered appropriate. While the ITP participants were repeatedly asked, during the evaluation, whether they would prefer any changes to the structure i.e. the various phases, they stated that the structure was appropriate. The five phase eight-month course is considered optimal to enhance the knowledge and skills on chemical management. However, some Brazilian participants thought the duration of eight months was enough for initiating the change projects but not for completing the implementation of them. As mentioned by one participant from the Ministry of Health: "Unfortunately, the institutional processes in my country are very slow, especially when the project demands some collaboration with other institutions. Besides that, we are very few people working with chemicals management in the Ministry of Health, so we need to overwork to implement anything beyond our regular tasks".

On the other hand, it is evident that the projects undertaken by participants produced results because of the stress that KemI mentors lay on projects being realised or showing some visible progress within a limited span of time of around six months i.e. during the third phase of the ITP round. In a number of cases, this does encourage ITP participants to re-orient their original plans so that the projects are more practical and achievable. During this time, KemI keeps in contact with the ITP participants and responds efficiently to their queries.

Certain institutions acknowledged bilateral collaboration with KemI, beyond the ITPs, and it could be observed that the ITP participants have not only taken ownership of their issues, but elaborated short and medium term plans and have attained milestones in developing policies, frameworks and technical capacity (such as training others). Within this context, the appreciation of the mentorship was highlighted and suggestions were made on improving the follow-up process, sharing of project reports or specific technical assistance in order to improve the effectiveness of the training. It is observed that structured mentoring and tracking of participants' progress were particularly appreciated as being complementary to the more theoretical knowledge-based training, since it allowed participants to have real-time advice on improving processes and practices.

There were variations in the perception of the usefulness and relevance of individual modules. This variation was often related to the experience and role of the participants in their institution. Thus the younger participants, with less experience (a fair

number of such cases were from Albania), appreciated the individual learning opportunity, both in terms of training content but also in terms of acquiring soft skills and networking. The more experienced participants on the other hand, emphasised the merits of the ITP trainings as a change driver for their organisation rather than their personal learning.

Several participants did suggest that more specialised modules should also be introduced. In addition, even though they greatly appreciated each individual module, they suggested that future trainings could be more tailored to their specific needs. For example, European participants stated that as EU legislation is subject to frequent updates, special short courses would keep them abreast of such changes. For the Tanzanians, given the particularity of the Tanzanian mining industry (gold extraction), large volumes of cyanides are transported through the country, whereas there is very little experience or capacity in terms of emergency response. In Vietnam, participants found that the topics covered were globally very much appreciated, but some felt that subjects could perhaps be more directly aligned to organisations' specific needs, and to specific industries, for example textiles, paint production, and fertilizer production, which are particularly relevant to the Vietnamese context, or even subjects that have a greater regional relevance.

The project cycle management module was particularly highlighted by a number of participants as being very professionally delivered. The lecturer's style of communication and engagement, and his ability to simplify the most complex of concepts was termed both interesting and beneficial. They talked enthusiastically about the project planning module and how it has helped them in developing proposals and projects that are logically structured, and realistic in terms of achievable objectives.

African participants also mentioned how the training and the support helped the participants and their institutions to improve their technical knowledge, to better prioritise and structure their day to day activity, to plan strategically the future but also to support their revenue-generating activity (from the chemicals import license system).

Overall, there was a high degree of satisfaction with both the course content and how it was delivered. . The opportunity to work on practical examples in a "hands on" manner enhanced the uptake of the knowledge, participants reported, despite the course being condensed to its nature. Presentations have been described as of very good quality and comprehensive. As one recent ITP participant remarked, "this is the first time I have a full picture of chemicals management. I found the organisation of events in Stockholm, both as a guest in that country and as a trainee, well done. I don't have any suggestions on how to improve the course."

3.3 EFFECTIVENESS

3.3.1 Participants' perceptions of the Programme

The access to international tools and resources provided through the training programme has been of high value, participants report, and are utilised in their work on a daily or routine basis. Gaining access to relevant and updated regulatory information on chemicals was reported to be important, especially in the context of limited personnel resources and capacity.

Beside the technical modules, participants also indicated appreciation of the less technical modules, focusing on “soft” skills such as team work and organisational skills. They found the project management modules and the tools, skills and best practices included in these to be of particularly high utility. A majority of the participants report that they applied their new skills from these modules not only in the design and implementation of their change project, but also in other projects with other partners and in their daily work. The modules helped participants set objectives and develop change plans in their own organisations.

The regional phase and the exchanges among countries that the ITP enabled is found to be a strong part of the training programme by the participants. Neighbouring countries often share similar experiences and challenges, and the participants from, for example Tanzania, appreciated the networking experience and interactions with neighbouring countries that was made possible through the regional phase. They cited that it created a sense of “competition” but also the willingness to collaborate and share best practices.

3.3.2 Extent to which training was used or attempted to be used in the work of participants and changes within the organisations attributable to the training programme

Generally, participants tell of successful knowledge sharing with colleagues upon return of the training programme. The participants shared their newly acquired knowledge with colleagues in their home organisations through, for example, organising small training sessions on chemicals management and also sharing material from the Programme with other staff members. Some participants took a step further through the production of brochures and leaflets or organised bigger workshops and trainings, reaching out beyond their respective organisation to share what they have learned. For example, in Tanzania participants from GCLA organised a series of tailored trainings for workers and drivers of a national logistics centre. The result is that currently all workers and truck drivers handling or transporting hazardous chemicals are trained by this agency. In Moldova, former ITP participants organised a national conference on ITP, informing the experts and political decision makers on the chemicals management priorities at EU level.

The knowledge acquired about EU standards and regulations has been especially val-

uable to countries aspiring to become EU members. For example in Moldova, the ITP training helped two participants to push for a change in the laboratory standards so far used to assess food safety, pesticides residues and safety of certain consumer products (cosmetics, toys, etc.). Equipment was acquired to implement these new standards in practice and guidance was provided that will serve as basis for policy on pesticides registration. Thus, following the ITP training, the participants managed to implement the EU analytical standards at national level and to move away from the ex. URSS inherited GOST standards.

In Tanzania, participants said that the training helped them understand their role in sharing the knowledge with those involved in chemicals management through the entire value chain. In Brazil, many participants reported that they were able to apply their knowledge in their daily work. The participants in the Programme in Brazil came from a wide range of organisations, and thus exhibit a wide range of examples of how they have applied their knowledge in their professional areas. At the Ministry of Health of Brazil, one ITP participant used the new knowledge for building the institutional framework for chemicals management in the health sector. At the Brazilian Institute for Environment, efforts concentrated on the risk evaluation of chemical substances, especially pesticides.

In the case of Albania, the general conclusion to be drawn from the interviews with former participants is, however, that they have not been able to make use of the knowledge and skills obtained during the course in a satisfactory manner in their respective organisations and faced obstacles in completing their change projects. Cited causes of this are lack of interest among their superiors combined with a lack of understanding of the importance of chemicals management. Also, lack of resources both technically and financially were cited as obstacles. In Albania, ITP participants who attempted to improve systems and processes within their own organisations were thus less successful, while efforts involving awareness raising and, for example, targeting producers of harmful effluents showed a higher degree of success.

Following the training programmes, beneficiary organisations have gained an increased knowledge in general about chemicals management, including GHS and greater awareness about dangerous chemical substances. There has been improvement of the quality of work in chemicals management as well as increased awareness of international practices. The knowledge has, for example, allowed the improvement of specialised training in environmental areas which focus on human health risk assessment due to chemical exposure. In Vietnam, for example, ITP participants used resources (database, documents from websites provided by mentors and KemI) and knowledge gained in order to improve and update content of lectures in the field of environmental management and environmental technology.

There have, in some countries, been active measures to assume leadership in the sphere of chemicals management among beneficiary organisations of the training programme. For example, the Ministry of Health in Brazil took the lead in the Inter-governmental Network for Chemicals and Waste in the Latin America and Caribbean

Region and also pursued active work in the World Health Assembly decision on the elaboration of a roadmap for the engagement of the health sector on chemicals management, and several other fora.

There is less evidence of actual concrete changes in the work structures and processes within organisations that can be directly attributed to the training programmes, but there are a few examples. In Brazil, changes in the framework of Brazilian Institute for Environment's organisation were made with the creation of a new division "Division of Management of Substances" (DIGES - Divisão de Gerenciamento de Substâncias). Serbia provides one of the most successful change projects of the training programme in this respect. Through the change project of an ITP participant in 2010 and as part of Serbia's harmonisation efforts with EU *acquis*, a helpdesk was created within the then existing Serbian Chemicals Agency. This helpdesk still operates today and receives queries from businesses and civil society organisations. It provides support to the private sector through helping clarify the provisions of REACH. The helpdesk directly works with developing capacity, and has led to improved efficiency of the Chemicals Agency and subsequently of the Department for Chemicals as queries could be responded to from a central location with the required resources and knowledge.

In Vietnam, participants were able to point to organisational changes that can partially be attributed to their enhanced knowledge, including more effective implementation of chemical management processes relative to import, distribution, user disposal, hazardous chemical identification, chemical sorting, waste management after use, disposal, and very importantly, have actively contributed to laws and regulations related to all of these issues.

The development of chemical databases and registries online is an important step towards chemical control, and the training programmes have attributed to several initiatives in this area. In Serbia, the development of such a registry, a requirement under the Law on Chemicals 2009 in Serbia, was a change management project. This is a comprehensive database on chemicals in the Serbian market, setting new obligations for producers, importers and distributors. Workshops were held in connection to this registry, providing information and ensuring compliance among stakeholders. In Brazil, the existing database on toxicological information and other information about the chemicals at Environmental Agency of Sao Paulo State was improved and streamlined into a single system as a result of the ITP programme.

It might be concluded that in the cases where efforts in their own organisations have been difficult to carry through, participants have often instead concentrated on work outside the mandate of their organisation, mainly through awareness raising. This is especially the case in Albania. Following their training, participants in Albania have, for example, engaged extensively with awareness raising, reaching out to the general public and often beyond the mandate of their respective organisations. Lack of awareness on the importance of proper chemicals management – both within government and amongst the general public - has been cited as a major problem by sev-

eral interviewees in several countries. Several countries also tackle serious chemical hazards. For example, one change management project in Albania targeted industrial pollution. The ITP participant attempted to raise the awareness of families inhabiting areas near a disused chemicals factory. Lands had been polluted and this was affecting humans, animals and plants. In Albania, participants have for example also focused on raising awareness among parents about harmful chemicals in toys, including visits to kindergartens to provide information about this. Another participant created a website that contains information on registered pesticides, active substances, distributors and suppliers of pesticides in Albania, and educational information about pesticides using different forms of multimedia, such as videos and images. While struggling to find funding for it for several years, she has now obtained a grant from SAICM through the NGO she was affiliated with.

3.3.3 National policies and strategies adopted in the area of chemicals management. Legislation enforced, national development plans and international conventions/agreements on chemicals initiated/further developed/adopted

In some, but not all, countries there has been an increase of active work in the area of drafting new legislation in the area of chemicals management, Brazil being at the forefront here. In Brazil, a major result is the contributions to the development of a draft law to control industrial chemicals and a national policy on chemical safety, which will contribute to reducing the impacts on the environment and human health.

A participant from Albania supported the drafting of the legislation on pesticides led by the Ministry of Agriculture. The legislation was approved in 2012. She mentioned, however, that she was hindered in her efforts to raise capacity due to a lack of interest.

In Serbia, the Law on Chemicals came into force in 2009. One change management project in 2010 focused on further work on classification, labelling and packaging (CLP), as required under that law. Two rulebooks - one aligned with the EU directives, and the other aligned with CLP regulations of EU - had already been drafted and adopted. Under the project, the dissemination of the rulebooks occurred. Industry was trained in the application of the rulebooks. First, the chemicals agency developed its own knowledge and that of the environment and trade inspectorates and then that of industry, customers and NGOs. Visits to regional centres and appearances on television were also made.

Also in Serbia, work on SVHC was done in another recent change project. According to the Law on Chemicals, manufacturers, importers or downstream users are required to submit applications to the Ministry for the purpose of entering the data on such chemicals into the chemicals registry. The project involved including SVHC as an annex in the rule book requiring industry to submit more details on which SVHCs they used, making changes to the registry and promoting awareness amongst industry about such substances. The intention was to make industry aware that SVHCs were dangerous and would be phased out. This was to make it easier for industry to adapt

to changed requirements. The ITP participants developed the new Annex with support from KemI, and after consultations within the Department, this Annex was approved by the government and adopted.

3.3.4 Key factors for success or failure

Buy-in to the ITP course, its objective, cause and change management perspective should be acquired at a high level of the participating organisation *prior* to the training programme. This is in order to ensure that participants will be supported in their knowledge sharing and change projects when returning to their organisations. As exemplified in Albania, some participants went back to organisations where their superiors either were not interested or did not understand the importance of chemicals management. A general observation by the evaluation team in Albania was that decision makers and senior officials were either unaware or uninterested in the subject of chemicals management, and did not perceive of it as a priority. In Vietnam, one participant noted *“leaders only respect and are interested in carrying out the tasks or missions that are assigned by the Central authorities. Idealistic or creative individuals are not highly appreciated”*.

The sense of ownership by the beneficiary organisations as well as an understanding that there are crucial needs that will be met by letting their staff participate in the training programme is essential for achieving results of the Programme. When the participating organisation has a sense of ownership and realises the clear benefits that can be gained from letting one of its employees participate in the training it leads to greater results. One example of this is ZEMA in Zambia, that displayed a high level of ownership of the change process within its organisation, and to which the ITP training attributed to a great extent. ZEMA rapidly understood that the assistance provided would allow them to more effectively and efficiently achieve their own objectives, and leveraged the individual change project component of the Programme to implement specific changes.

Pre-existing cooperation between KemI and the country/organisation where the participants come from has a clearly positive effect on the results of the training programme and provides synergistic opportunities. In the case of Brazil, for example, KemI’s bilateral cooperation with the Ministry of Environment clearly played an important role in ensuring that the ITP was demand driven and given priority by the ministry. Serbia is another example of how KemI’s bilateral cooperation with the country for several years prior to the training programme increased the level of results of the ITP programme. In both Serbia and Brazil, the level of support and mentoring provided by KemI to the participants was high and often lasted longer than the duration of the programme. Furthermore, pre-existing cooperation between KemI and participating countries/organisation also enabled initiatives to more strategically relevant change project.

The level of responsibility and authority of the participant in his or her own organisation also plays a role in how he or she will be able to drive change processes in his or

her work. The participants should thus hold a high enough position to be able to demand attention to be his or her project, as some participants who are junior find it harder to drive change projects in their organisation. However, hierarchical mix in the training programmes is also found to contribute to a higher level of ownership and institutional cohesion.

The existing capacities, both technical and financial, within the participant's organisation also affects the extent to which a participant can use his or her acquired knowledge and skills from the ITP programme. An example is from Albania, where the Ministry of Environment by law has to develop a registry of industrial chemicals. An ITP participant from the most recent round wanted to initiate this registry as part of his change management project. However, the Ministry of Environment has limited IT expertise, and therefore it was not possible to develop as advanced a system as the participant foresaw in his project.

In Brazil, clearly strong existing capacities and dedicated resources paved the way for further successful capacity development through the participation of their staff in the training programme. The higher the level of existing financial and technical capacity of the organisation, the higher is the degree to which the participants were able to apply their gained knowledge in their regular activities as a whole.

Collaboration between participants from different organisations in their change projects have also proved to be fruitful. In Albania, three participants worked with awareness raising on chemicals in toys, sharing the tasks according to their areas of expertise and professions. One was responsible for testing as she worked in the laboratory of the Directorate General of Customs, the second was responsible for legislation as she worked in the legislation department in the Ministry of Economy and the third for awareness raising as she was engaged in an NGO. Ultimately, the project succeeded to introduce legislation regarding phthalates in toys, while follow up and alignment with the adaptations to technical progress changes in EU are still to be done.

The idea of having participants in the training programmes building on already existing change projects, i.e. successive participants working on the same change project, is also something that has led to very good results. An example of this is the development of a chemicals registry in Serbia. Here, several successive participants have been building on the projects of their colleagues who were earlier ITP participants. This approach ensures a higher degree of sustainability in the change projects.

Institutions having several participants in the Programme leads to greater achievement of the programme objectives and also serves the purpose of sustainability and ownership. In Tanzania, for example, institutions where several staff members participated in the programme showed excellent results, both in terms of policies and systems put in place, and in ownership of the issues and strategic planning.

Chemicals management is essentially a cross-cutting issue. This means that usually

several ministries and agencies have a certain mandate in this area. In cases where inter-ministerial and inter-institutional alignments are problematic and unclear, this can be a hampering factor in the implementation of the training programmes. At the same time, if ministries have good pre-existing systems for collaboration in place, this will foster increased knowledge sharing and shared capacity development within the field of chemicals management. In the case of Zambia, for example, agencies are currently drawing up a Memorandum of Understanding on issues of chemical management, but inter-agency coordination remains a major challenge, and coordination processes/tools could themselves be highlighted and further developed in training content.

3.3.5 Legislation enforced, national development plans and international conventions/agreements on chemicals initiated/further developed/adopted

In Albania, few cases of wider national level results could be observed. One example would be in the case of the project initiated by an ITP participant of the 2011 round, in which trainings were conducted for the local directorates of public health and municipalities across the country in DDD (Disinfection, Disinsection, Deratisation). In Brazil, several participants were successful in applying their knowledge from the ITP course also outside their organisation. These included participation in the discussions and negotiations under the National Commission on chemical safety (CONASQ), fora of discussions with OECD technical teams on chemicals management and participation in the SAICM 5th International Conference for Chemicals Management and also in the Conference of the Parties of the Basel, Stockholm and Rotterdam Conventions.

In Brazil, discussions with the private sector and labour sector related to the standards for chemicals exposure and classifying and labelling chemicals in the work place were also mentioned.

3.3.6 Networking

The general conclusion based on the response from participants is that keeping up a network between ITP participants has been a challenge. In Tanzania, participants acknowledged that the networks created during the training tend to diminish over time, and noted that the KemI site dedicated to facilitating the networks is itself not regularly updated. In Zambia, participants noted general difficulties with information dissemination, and sharing the benefits of the Programme. To help counter these challenges, it was suggested the Programme should specifically train and support a corps of “resource persons” or “ambassadors”, charged with being focal/contact points on chemical management information, policy and implementation; ensuring inter-agency coordination; and maintaining the vitality and relevance of networks. In Serbia, participants have generally not kept in touch with ITP participants from other countries and any communication has trickled off. In terms of networking, participants from Brazil stated that they mainly keep contact with the Brazilians colleagues who attend-

ed the ITP. A great number continued to be in contact with KemI on a regular basis about a variety of topics.

Vietnam seems to be an exception. Participants stated they generally continue to be in contact with KemI and other alumni, including in other countries, with KemI regularly providing updated information related to guidelines, regulations and materials for the participants. The KemI website is considered particularly useful as a place where alumni can share their experiences in chemical management with each other. They particularly appreciate KemI's enthusiastic and timely responses to participants' questions or difficulties.

3.4 IMPACT

Levels of impact have varied from country to country, and has exhibited itself in various forms. When we refer to impact as the ultimate goal that training programmes such as ITPs aim towards i.e. the improvement in the environment, citizens' well-being or poverty reduction, this will take time. The older the change management project has been, the greater the chances that is demonstrating such results. ITP 258 change management projects have thus made more or broader progress than ITP 299 ones in this regard.

Smaller projects aimed at awareness raising in Albania, Vietnam and other countries resulted in factories stopping the discharge of pollutants into their surrounds or being forced to close, pesticide/fertiliser companies supporting transportation for treatment of pesticides containers or chemicals factories equipping their workers with improved safety equipment.

In Serbia, where the ITP participants have been able to make greater strides, the impact of the helpdesk on industry has been that the latter is now better prepared for legislative changes. Queries from enterprises over time have become more specific and of a more complex nature. According to the Inspectors at the Inspection Department for Environmental Protection, also former ITP participants, the impact of the helpdesk has been very good. Combined with their own work, the helpdesk has resulted in fewer breaches of the law being observed now. Further, the awareness raising and dissemination of information on the online registry has prompted many companies to get registered. The engagement of the Department for Chemicals with companies over the years, through this interaction, has increased the awareness levels of companies.

Similar results have been observed in Tanzania. First, at GCLA level, a registration process of the industrial chemicals has been put in place and related to the imports and economic operator's identity. Hence, every importer needs to apply for an importing licence in order to complete custom clearance, and this process is used to register the chemicals. The importers are linked in the database with the substances or mixture that they import, and there is additional traceability through the licence number. There is a particular focus on highly hazardous chemicals used in mining/ metal

extraction processes. The on-line system is undergoing testing and it will soon be available for all economic operators. The license system generates income for GCLA to a certain extent, which is used to further develop the system. The registrations completed in the last three years are currently scanned and introduced in the new system.

GCLA engaged in a sustained and enthusiastic training programme, targeting mainly the personnel working on the port and inland containers depots (Dar-es-Salam is the main port-of-entry in the country). Thus training became compulsory for personnel such as truck drivers or personnel handling chemicals. Efforts are made to share the knowledge at the regional level. However, Tanzania has borders with eight different countries and the Indian Ocean, and resource constraints are a significant limiting factor.

The impact of the Programme in Tanzania is less relevant in domestication of the multilateral environmental agreements. However, mercury issues are acknowledged and there is long-term planning in developing policies to control the trade and use of mercury (currently, following the awareness campaigns, the authorities faced resistance from the local communities involved in mining of gold as these are focused on their immediate financial needs). It is therefore considered that future programming should engage with and support a broader base of stakeholders to increase potential for policy change, and also provide capacity-building relative to legislative processes, and possibly (outside of ITP) complementary technical legislative-drafting assistance, in cooperation with key agencies and stakeholders, including civil society.

In Zambia, the secondary impacts on other stakeholders have also been exceptional, with for example ZEMA engaging in sustained and enthusiastic cooperation, coordination, capacitybuilding and awareness-raising with other agencies, members of civil society, educators, medical personnel, and vulnerable groups (for example children, women, subsistence farmers, etc.). In addition, the increase in efficiencies are remarkable, with levels of ownership and cooperation by other stakeholders very high, with a regional inspector stating “*now they are doing the job on our behalf, they are calling us!*” One participant noted that, while the Agency has an existing mandate to undertake these activities, “*the training was a catalyst to their implementation*”.

Beneficiaries have adopted a “pilot project” approach to change, primarily as a result of the project component, with ZEMA having already evaluated the results of training and cooperative initiatives at borders in the south, and now preparing to roll them out at other strategic border-crossings in the country. The networks and other regional exchanges have provided significant vectors of change, and are already resulting in the osmosis and direct replication of key approaches, procedures and activities in other countries (Zimbabwe, Namibia, etc.). Joint efforts, operations and training have also been implemented with neighbouring countries.

3.5 SUSTAINABILITY

A very significant factor in sustained progress towards improved chemicals management will be the political will and incentives in the country.

In Serbia, Albania and Moldova, harmonisation with EU *acquis* will presumably continue to ensure that there is legislative reform and improved implementation and enforcement of those laws.

At the individual level, the capacities of 395 ITP participants have been built in a sustained manner, and depending upon the circumstances that has spilled over into sustained institution strengthening, such as in the former Serbian Chemicals Agency – now the Department for Chemicals – which benefits also from very low staff turnover. There are other countries though, such as Albania, where improvements within the relevant public sector organisations will require greater active interest by their senior management and the national government. Also, the relevant government departments and agencies continue to need further support.

Sustained changes have been made through new laws, regulations, registries and guidelines, such as in Moldova where the Ministry of Agriculture has agreed to use the guide on toxicity of pesticides as an official document for pesticides registration, or in Serbia where reporting information on SVHC is now a requirement. The help desk and the online registry are two examples of where subsequent ITP participants from Serbia have built on the change management projects initiated by their colleagues during previous ITP rounds, as well as doing further outreach with industry regarding the presence of the helpdesk and how it could facilitate them. At the same time, the 2014 abolishment of the Serbian Chemicals Agency is considered as having been detrimental to the work being done on chemicals management in the country. It also affected financial sustainability, as the Agency had a revenue generating role shouldering a fair share of its running costs.

In Tanzania and Zambia, the Programme has demonstrated high levels of sustainability, with flow-on effects of the benefits beyond the change projects as such, but also replicating and expanding towards other stakeholders, with synergies already being observed. The changes to policy, processes and institutional culture are also highly indicative of continued long-term benefits. These benefits have been further transmitted in a strategic, efficient and effective manner toward other stakeholders, but financial and resource constraints continue to remain the key challenges for chemicals management to reach critical mass and become a priority on the political agenda. At the GCLA level in Tanzania, the revenue-generating activity contributes to the sustainability of the engagement and commitment, by ensuring (limited) financial support to the activity, but also stimulating the synergies and cost-effective solution development.

Finally in Brazil, inter-sectoral initiatives were increased after ITP. This included the National Forum of Chemical Safety and the increased collaboration between the En-

vironmental Agency of Sao Paulo State and the federal agencies such as the Ministry of Environment, Ministry of Health and Brazilian Institute for Environment, which according to the participants will allow for the improvement of the management of chemical substances in Brazil.

Overall, participants do not undertake any networking with fellow participants either within their countries or from around the region, and if they do then it is limited. Friendships and informal exchanges do occur with ITP participants with whom change management projects were collaboratively done, otherwise it is surprising that ITP participants from one organisation are not familiar with participants from other organisations within the same country. Communication with KemI is greater, but also not by everyone and is quite infrequent. Engagement with mentors and experts from KemI is better where there are instances of bilateral cooperation.

“Projectplace” – KemI’s online information sharing and information resource platform for ITP participants - also has limited usage and that too declines over time. Only recent participants of ITP 299 were introduced to Projectplace, and the more recent the ITP participants are, the more likely they are to be using it.

3.6 CROSS-CUTTING ISSUES

Given the significance of human rights and other cross-cutting issues in the chemicals management sector, the Evaluators note the results of the Programme relative to one of its key objectives, which was *inter alia* to: “*obtain further insight into the relation between chemicals management in the supply-and-use chain, economic growth and improved human health and environmental quality*” and to “*contribute to poverty reduction by promoting the sustainable use of chemicals*”.

The training programme did not directly address the link between cross-cutting issues of poverty, human rights and corruption and chemicals management. Despite the seriousness of such issues in the countries supported by the Programme, despite these issues being of considerable interest to participants in their own country or sector context, and despite the specific Programme objectives, poverty reduction, human rights, and corruption concerns were conspicuously absent from *formal* training content, and were not directly or routinely addressed during courses, having only been raised on an *ad hoc* basis during discussions. Furthermore, it was observed that participants were not aware of the existence of the Sida HRBA.

With regard to cross-cutting issues, most of the interviewees in Albania and Serbia could not make the connection between human rights, gender issues and chemicals management. They recalled the debates during the training programme, but also that the programme did not provided a structured approach or an illustration of these.

In Zambia, though, despite the fact that the Programme did not directly address the link between cross-cutting issues such as poverty, human rights and corruption and chemicals management, participants from most agencies were at least generally aware

of these links- Many had existing plans on how to embed these in a sustainable way in their future policies. However, they acknowledged the challenges and limitations in doing so.

4 Conclusions

Relevance

Globally, chemicals management is a growing problem, having a detrimental effect on the environment and quality of life. The ITP objectives have been relevant and in line with the policies of the governments and international conventions regarding chemicals management, and in line with participants' work. In Europe, the catalyst for enhanced chemicals management has been largely the need to harmonise laws and systems in preparation for EU accession. In Africa and Asia, it has been the need to curb the effects of indiscriminate use of pesticides and other chemicals. Cross-cutting issues, including human rights and corruption, are also of particular relevance to chemicals management in those regions.

Efficiency

Overall, participants have benefited from gaining more in-depth knowledge and have more comprehensive understanding now of chemicals management. They have expressed immense satisfaction with both the courses' content and how they were conducted. Participants have come back to their countries to make great use of what they have learnt and apply that in change management projects. The change management projects have been relevant and have generally yielded positive results in the span of time allocated to them. Participants have also learnt useful communication and project planning skills. The visits outside the lecture rooms to sites were stated to be both interesting and informative. The mentorship aspect was seen as a particularly beneficial part of the programme.

Effectiveness

Important results have been attained in terms of increased individual knowledge and institutional capacity to foster discussions and strategies on chemicals management. Where change management projects have not yielded expected results, significant reasons include the indifference of the government or senior management, the lack of capacities and resources, and the relative inexperience of the ITP participants.

Almost all participants implemented their projects, but with varying degrees of success. A number of projects targeted factories and farms producing effluent, and were successful in awareness raising and reduction of the discharge of waste. Institutions are making use of the knowledge and tools acquired to make organisational changes and move the discussions forward. There have also been both major and minor legislative changes, and initiation or improvement of national chemicals management systems. There is also now greater collaboration between government and the private sector. Where Keml has in parallel been implementing bilateral cooperation projects,

support and mentoring has continued for ITP participants and their colleagues. The effectiveness of change management projects has been more pronounced because of opportunities for synergies between the projects and the work being undertaken under the bilateral cooperation.

Despite the general positive results, there is a common opinion that the cross-cutting issues were not sufficiently covered by the ITP. This is reflected in the participants' difficulties in relating chemicals management to poverty reduction, gender, human rights, and anti-corruption.

Impact

While broader and deeper impact will take time, there are already pockets of impact emerging with better monitoring occurring, handling of chemicals in the private sector and agricultural lands being improved and use of it becoming more judicious or being eliminated. Resource constraints, though, hamper beneficiaries' ability to produce more profound impacts.

Sustainability

There has been limited networking and experience sharing, and the development of a desired 'critical mass' of ITP alumni. Even though organisations have gained much knowledge, this will need to be complemented in the future, as the new changes and regulations will bring new challenges, and the Swedish experience can help in meeting them. Generally, in the countries visited, there is relatively low staff turnover in targeted institutions, which make prospects of retention of knowledge within the institutions brighter.

5 Recommendations

The Evaluation team has been highly impressed by the competence and dedication of KemI and its constant efforts to improve the ITP further. In that regard, the Evaluation fully supports additional features that are being proposed in the next programme including elements such as having a first tier of prioritised countries, inception phases, and greater collaboration with the parent organisations of the applicants.

In addition, the Evaluation has the following recommendations;

- 1) **Human Rights-Based Approach:** The direct relevance of poverty reduction to the work of individual participants is relatively low. However, such issues can be advanced as a means of providing “meaningfulness” and commitment to agencies’ objectives, and also as a means of interlinking seemingly disparate issues, for example environment, health, child rights or vulnerable groups. From this perspective, participants should also be provided with knowledge of how to use human rights issues as leverage in order to advocate for internal or policy change, and awareness raising (of citizens or the private sector). In addition, the cross-cutting issues need to be better integrated in the ITP so as to provide the participants with tools to work with them in practice. These could, for example, be mandatory when designing the change projects.
- 2) **Networks:** The ITP should increase focus on building an understanding of how the collaboration and inter-institutional work at national level is essential for any change process to succeed. Therefore, the ITP could develop further modules on communication and building and maintaining networks. KemI should encourage and support a focal point per country to support such networking and information sharing.
- 3) **Tracking Impact:** It is recommended that Sida provide additional resources to KemI to enhance its monitoring and tracking capacities, so that it can document impact and lessons learnt, as well as proactively foster networking amongst former ITP participants. This would allow it to demonstrate continued benefits of Sida investments. This would also enable it to update its database of contact details of ITP alumni, which currently needs significant improvement.
- 4) **More Academia & Civil Society:** There should be more opportunities for universities and research institutes to apply and be recruited for future rounds. As the country reports have shown, the few that have been enrolled have been able to disseminate research findings, include aspects of what they learnt into curricula and become a sustained resource (in some aspects of chemicals

management) for their students year after year. Similarly, political priorities can be modified through public awareness raising. NGOs working at the grassroots, in this regard, can play a useful role.

- 5) **Seniority of Participants:** Applicants chosen should be medium or senior level professionals within their sector or organisation. This is because they are in a better position to influence their organisations – especially senior management - and push for change.
- 6) **Specialised Modules:** Follow-up training in specialist areas is required. The ITP methodology should be further improved by having two modules: one with the general information on chemicals management and another module covering more specific topics according to the specific interests and needs of the participants.
- 7) **Model for Replication:** Given the success of this ITP, Sida needs to invite other international development partners to assess this work, so that they can be encouraged to offer similar schemes to citizens of countries in which they operate – be it in similar or other topics of poverty reduction and human rights.

Annex 1 - Terms of Reference

Evaluation of ITP 299 – Strategies for Chemicals Management

1. Background

Swedish International Development Cooperation Agency (Sida) is a government agency working on behalf of the Swedish parliament and government, with the mission to reduce poverty in the world. **The Swedish Chemicals Agency (KemI)** is a supervisory authority under the Ministry of Environment and Energy. KemI is responsible for ensuring that companies and society at large conduct controls of chemicals in an acceptable manner. KemI also supports the development of preventive chemicals control in developing countries and in countries whose economies are in transition. This support is taking place at bilateral, regional and global level. KemI has implemented several Sida-financed programmes, including ITP's.

1.2 General information on Sida's International Training Programmes (ITPs)

Since the late 1990s, one of Sida's approaches to international capacity development in low-and middle income countries has been the ITP model. The programmes shall be demand-driven and address capacity development needs that are aligned with Swedish development goals and in areas where Sweden is expected to have comparative advantages. Participants are to be nominated as strategic representatives of their home institutions, and should have a sufficiently senior and otherwise suitable position that enables them to initiate and/or manage a reform process relevant to the overall development objective of the ITP.

In the recruitment process, Sida is expecting the programme organisers to ensure that each participant's change project is considered relevant and important to their respective home institution. Upon being accepted to the programme, participants are invited to a training period in Sweden, after which participants return to their home institution to work on their change project, mentored by the programme organiser. After a period of time, all participants meet again to share experiences and receive additional support to their projects, this time often in one of the participating countries. Each individual training programme is considered completed after a total of around 18 months. By then, participants are expected to have begun contributing to organisational strengthening, often through their chosen change projects (but sometimes also on the side of these), and to have submitted a final report summing up experiences in these regards.

The setup of ITPs can differ slightly concerning the length of the training periods, number of regional meetings and reporting structure. By recruiting several participants from the same institutions as well as the same countries over a number of years (3-5), an aim is to build a 'critical mass' of change agents expected to contribute to a reform-enabling environment where each change project is to be seen as a part in an ongoing process.

The strategy "Result strategy for capacity development and exchange" is the current steering document when designing and implementing new ITP-programmes.

1.2 ITPs in Chemicals Management

As mentioned, one of the areas of collaboration between Sida and Keml has been to organise ITPs under the assignment of the Capacity Development Unit (CAPDEV) at Sida's division for Partnership and Innovation. So far, the ITP **258 Strategies for Chemicals Management** (2007-2011) including ITP **258 Strategies for Chemicals Management Europe** (2009-2011) followed by the sequel ITP **299 Strategies for Chemical Management** (2012-2017), have been funded by Sida and implemented by Keml. This evaluation shall have a focus on the sequel ITP **299** with a financing contribution of SEK 31 289 521 distributed so far in total. However the programme ITP **258** shall be included regarding building 'critical mass', possible network formations and results that may have affected the ITP **299**.

The overall (long term) objective of this specific programme, ITP 299 Strategies for Chemicals Management, is to provide participating countries a further insight into the relation between good chemicals management and the supply-and-use chain, economic growth and improved human health and environmental quality. The programme was intended to suit the participants' organisations needs and contribute to poverty reduction by promoting the sustainable use of chemicals. The mid-term objective (3-5 years) was to contribute to an organisational change taking place or make further development, in which participants use the knowledge and tools gained from the programme to develop legal and institutional infrastructures for preventive chemicals control on a national level.² The intervention is in its final stage and the last programme round will be finalised in 2017. Up to today, six programme rounds have been finalised providing capacity building to in total 119 persons from primarily Africa, Asia and Europe but also from Latin America.

Sida is cooperating with Keml on capacity building programmes following the insight that poor people and vulnerable groups suffer most of the impact of toxic pollution. Heavy metals, pesticides and other toxic substances can be found at dangerous levels at thousands of sites around the world, in drinking water, soil, air and food. These chemicals affect local populations in the poorest towns and neighbourhoods, especially children. The programmes aim to focus on areas Sida defined as key areas for capacity building within chemicals management in international cooperation, commitments and policy frameworks, including the Strategic Approach to International Chemicals Management (SAICM) by bringing up the responsibility of stakeholders, the necessity of national legislative and regulatory frameworks for chemicals and waste and the importance of information access. National institutions within chemicals management should be able to develop and monitor the implementation and enforcement of national policies, strategies and legislation and to promote private sector responsibility, accountability and involvement. Since the area of chemicals management continues to be a prioritised area for Sida and for Sida's partner countries, the evaluation is highly relevant for future programme development. For implementing organisations as well as for financiers, an evaluation constitutes an important opportunity to assess design, implementation and results of development activities in a careful and systematic way.

2. Evaluation Purpose

Since the area of sustainable chemicals management and institutional/organisational capacity building continues to be a prioritised area for Sida and for Sida's partner countries, the evaluation is highly relevant for future programme development. The main purpose of the evaluation is:

To identify results, collect lessons learned and provide Keml and Sida recommendations for future programme design and implementation in order to further enhance sustainable, anticipated effects in the area of chemicals management and institutional capacity building.

In this process, the evaluators are expected to elaborate on how the universal action plan of Agenda 2030 and its three dimensions of sustainable development (financial, social and environmental) can be addressed and integrated in an ITP in relation to the participating countries needs, preconditions and challenges.

The evaluation is expected to have a *learning* effect on the different stakeholders (Keml, participating organisations and Sida). How the evaluation is to support the learning process through communication and dissemination is to be further developed and described in the tender by the evaluators. Further, the evaluators are expected to translate the new knowledge into better practice in the given context, and shall produce substantive ideas on how to improve the reviewed programme.

3. Evaluation areas

The evaluation is expected to focus on the areas below. Within the overall framework of the main evaluation areas, the evaluators are expected to present detailed evaluation questions in the inception report, for Sida's consideration and approval. The inception phase will provide an opportunity for the evaluator to further develop the evaluation questions based on initial findings.

- 1 To what extent have the objectives and design of the programme been consistent with the demands and needs from participating individuals and their home organisations/institutions? Has the programme been aligned to country specific demand and needs for institutional capacity development? Suggest improvements where appropriate.**
- 2 Has the recruitment process provided good conditions to reach and recruit suitable applicants, also taking into consideration the support from their organisations/institutions? Advantages or disadvantages regarding the mixture of participants from low and middle income countries?**
- 3 To what extent is poverty, in its different dimensions, addressed in the design, implementation and follow up of the programme? What/which dimensions are addressed? How could the programme design be strengthened so that poverty reduction is more explicitly addressed? (Please note that this specific question shall not be removed or reformulated, as it is a part of Sida's general poverty analyses).**
- 4 To what extent has the programme managed to mainstream gender, anticorruption and human rights as cross-cutting issues within the area chemicals management?**
- 5 Did ITP 299 lead to a strengthened capacity within organisations and institutions to deliver on their specific mandate in the area of sustainable chemicals management? If so, why and if not, why not? What are the key factors for success or failure? To what extent are results (intended/unintended, positive/negative) to be found on different levels (from organisation, sector, policy level to local/regional and/or country level) as a result of the programmes in the short and medium term? Examples on progress regarding e.g. enforcement of legisla-**

tion, national development plans and international conventions/agreements on chemicals?

- 6 To what extent has the programme been successful in establishing and sustaining new and/or enhanced partnerships and functional networks between organisations and institutions? If so, why and if not, why not?** For example, have networks linked up to established national/regional/global functional networks (e.g. within the international work on regulations)? How can future ITPs within chemicals management include partner country stakeholders in the planning, implementation and follow-up to further stimulate local ownership?

4. Delimitations

The evaluation shall have a focus on the sequel **ITP 299** but results and lessons learned from the previous). **ITP 258** shall be included (when relevant) regarding building 'critical mass' by an accumulated number of participants from certain contexts, possible network formations and results that may have affected the **ITP 299**. **For the field trips and in-depth studies, Zambia, Tanzania, Albania, Serbia and Brazil are to be prioritised. An average of approx. 4 days in each country is expected.**

5. Approach and Method

The methodology to be used should be proposed by the consultant in the tender. The methodology and evaluation design shall be further elaborated and explained in an inception report. The evaluators are expected to carry out the assignment in a cost efficient manner. The evaluators will carry out the work independently but will keep the contact person at Sida informed of the progress throughout. If and when more significant problems or issues arise, e.g. low survey response rates, the evaluators are expected to inform the contact person and discuss solutions. The evaluation team will regularly update the contact person on the progress of the evaluation and any issues that may arise.

Before the upstart meeting, Sida/CAPDEV will provide to the evaluation team: Contact persons from Sida's Capacity Development Unit (CAPDEV) and Swedish Chemicals Agency (KemI).

CAPDEV and KemI will make available necessary staff resources and in best possible manner facilitate the gathering of additional documentation and information. Sida and KemI will make available contact information of organisations and participants. The evaluator is expected to use a combination of methods (quantitative and qualitative) and information to be able to respond to the evaluation questions, such as:

- A review of relevant programme documentation (tenders, invitations, reports etc., a major part of the documentation is in Swedish
- A review of relevant documents and strategies within Sida (a major part of the documentation is in Swedish
- Interviews with responsible officers at Sida and the respective embassy and other relevant actors.
- Interviews with the programme organiser's managers, mentors and administrators.
- Field visits in the suggested countries to allow in-depth study of relevant evaluation questions, including in-depth interviews with a selection of participating institutions and organisations (participants, superiors etc.) located in

the different regions.

- Skype interviews and/or surveys with a sample of participants and their superiors from participating organisations and possible other actors, from other countries than the ones visited.

Surveys and interviews with former participants are to be held in English and Portuguese (Brazil). The inception report will form the basis for the continued evaluation process and methods to be used shall be discussed and agreed upon between the consultant and the contact persons.

6. Stakeholder Involvement

The main stakeholders of the evaluation are former participants/participating organisations, Sida, Swedish Embassies in partner countries and Keml. Sida expect the evaluators to elaborate on how different stakeholder groups are to participate in and contribute to the evaluation process. A draft plan for stakeholder participation and learning is expected to be presented in the tender and is to be further elaborated and reported on in the Inception Report.

7. Evaluation Quality

All Sida's evaluations shall conform to OECD/DAC's Quality Standards for Development Evaluation. The evaluators shall adhere to the terminology in OECD/DAC Glossary of Key terms in Evaluation and Result-Based management as far as possible. The evaluators shall specify how quality assurance shall be handled during the evaluation process. Sida has a policy of mainstreaming gender equality in all its work. The evaluation shall be designed, implemented and reported in a manner that is consistent with Sida's policy for gender mainstreaming.

8. Time Schedule, Reporting and Communication

The assignment shall be conducted during the period **February 2017 –June 2017**. The consultant team are to be available for the assignment (including a final presentation/seminar/workshop at Sida) during the designated timeframe. Dialogue and reporting will be to the contact person at Sida (to be specified to the consultant when the procurement process is finalised).

Mile stones:

Upstart meeting at Sida: Mid-February 2017

Inception report: To be delivered within 3 weeks after the upstart meeting.

Progress report: To be delivered to Sida within 2 weeks after the field visits.

Draft final report: To be delivered no later than 2017-05-22

Final report: To be submitted within two weeks after joint comments from the contact persons.

After the inception phase, **the Inception Report** will delineate in more detail the approach and methods to be used when carrying out the evaluation, including more sharpened evaluation questions. The detailed time and work plan shall include essential delivery dates for the reports, field visits, and dissemination activities such as seminars, presentations and workshops. The consultant shall be available for a meeting at Sida, as well as a potential presentation or workshop with stakeholders in

connection with the submission of the inception report. The report shall be submitted to Sida **within 3 weeks** after the upstart meeting.

The consultants shall summarize the work to the contact person at Sida in a **Progress Report** when the in-depth interviews and field visits have been conducted and compiled.

The consultants shall present the conclusions and recommendations in a **final report** written in English. The final report should have a clear structure and be presented according to the report format presented in Annex B in the Sida Evaluation Manual (p 100ff). Please note that the report shall be inserted in a layout template, to be forwarded from Sida to the consultant at the start of the assignment.

The assignment is to be seen as completed after submission and approval of the final report and after a presentation event at Sida (seminar, workshop). Sida has the possibility to invite the programme organisers and other stakeholders to this presentation, if Sida finds it suitable.

9. Resources and budget

The total budget, including fees and reimbursable costs, of the evaluation shall not exceed **800.000 SEK**.

10. Requirements

The proposal shall include a description of the team composition, a tentative overall time- and work plan; the approach and methods to be used; and draft evaluation questions.

The evaluation shall be carried out by a team of **2-4 consultants**. The evaluation team shall **not** have been involved in the formulation of the ITP programmes (ITP 258/299) being evaluated. One team member shall have the role as the Team Leader (core consultant) with the overall responsibility for the evaluation. In addition to the requirements formulated in the Framework Agreement, the following qualifications are required:

- All team members; must have full proficiency in **English**, at least level 2 according to Sida Language Level Definition,
- At least one of the team members must have full proficiency in **Swedish**, at least level 2 according to Sida Language Level Definition,
- At least one of the team members must have full proficiency in **Portuguese**, at least level 2 according to Sida Language Level Definition,

11. Evaluation of call-off responses

The call-off response shall include following:

1. Suggested personnel for the assignment, and short explanation of suggested persons' suitability for the assignment and previous performed similar assignments, including CV according to the CV template, see **Appendix 1**.

The proposed personnel/team will be evaluated in response to its expertise and:

- Documented experience of evaluating different models and methods in the field of capacity building of organisations/institutions in a development context. (25p)

- Documented expert knowledge and academic/professional background in the area of chemicals management (20p)
- Documented expert knowledge and experience regarding how to mainstream cross-cutting issues in development cooperation interventions (primarily democracy and human rights, anti-corruption and gender).(15p)

2. Short description of how the assignment will be designed and implemented; appropriate method, the organisation of the assignment incl. time- and work plan (30p)

3. Total cost for the assignment (divided into fees/hour per person, other costs/reimbursable costs and total cost for the assignment). All types of costs shall be given in SEK, excluding VAT. The total cost for the assignment must not exceed 800 000 SEK, including reimbursable costs. (10p)

Sida will use the following criteria for choosing the best proposal

Criteria		Max point/criteria
1.	Personnel's suitability	60
2.	Appropriate method, organisation of the assignment incl. time plan	30
Total max point technical criteria		90

The scale of grades that will be used when assessing the criteria (except price evaluation) are:

The number of points that can be awarded under each of the technical evaluation criteria. For example, if a maximum of 20 points can be awarded for a given criterion, "Good" will mean $0.8 \times 20 = 16$ points. (In the evaluation, the levels (in %) will have fixed values, which means that there will be no intermediate values).	Poor	0 %
	Not entirely satisfactory	40%
	Satisfactory	60%
	Good	80%
	Very Good	100%
Minimum score to proceed to price-evaluation	The call-off response must achieve a minimum of 60 points as a condition for further price evaluation	

Price-Evaluation

Price will be assessed according to the following model:

The call-off response that submitted the lowest call-off price achieves maximal price points. The other call-off responses achieve points according to percentage difference between the individual call-off price and call-off with the lowest price.

Price point = (Lowest call-off price / Individual call-off price) * Max point price criterion

Criterion		Max point/criterion
6.	Total cost of the assignment	10
Total max point price criterion		10

12. DECISION regarding contract award

All consultants that have submitted a call-off response will be informed of the decision regarding the contract awarded by email/via Kommers.

13. Appendices and Electronic sources

Appendix 1: CV Template

Appendix 2: Including 1-4

- (1) ITP258 Utvärdering Ternstrom Consulting AB
- (2) Åtgärdsförslag (Management Response) för KemI – Utvärdering av ITP258
- (3) Beslut om insats Internationellt Utbildningsprogram ITP 299 Strategies for Chemicals management
- (4) Beredskapsplan-Appraisal of intervention

Appendix 3: Including 5-7

- (5) Tjänsteköpsöverenskommelse ITP 299
- (6) Årsrapport 2012 ITP 299
- (7) Årsrapport år 2013 ITP 299

Appendix 4: Including 8-13

- (8) Årsrapport 2014 ITP 299
- (9) Årsrapport 2015 ITP 299
- (10) Programbroschyr ITP299 Asia_Europe 2016
- (11) Programbroschyr ITP299 Africa
- (12) Sida Evaluation Manual – Looking Back, Moving Forward, 2nd revised edition, 2007
- (13) Resultatstrategi för kapacitetsutveckling och utbyten 2014-2017

Electronic sources:

General information of the ITP-programmes can be found on:

<http://www.sida.se/English/partners/resources-for-all-partners/courses-and-training/International-Training-Programmes/>
 Methodological materials at Sida:
<http://www.sida.se/English/partners/resources-for-all-partners/methodological-materials/>

Annex 2 - List of Persons Interviewed

Sida

Erica Villborg Lindstrand, Programme Manager ITP, Capacity Development Unit (CAPDEV), Department for Partnership and Innovation

Ingrun Hattenbach Åslund, ITP, Capacity Development Unit (CAPDEV), Department for Partnership and Innovation

Sara Stenhammar, Programme Specialist Environment and Energy

International Unit, KemI

Ingela Andersson, Head of Unit

Helena Casabona, ITP Project Manager

Lennart Dock, Programme Manager

Gunilla Antvik, Senior Adviser

Gunilla Ericson, Senior Adviser

Anna Fransson, Senior Adviser

Ule Johansson, Senior Adviser

Torbjörn Lindh, Senior Adviser

Bengt Melsäter, Senior Adviser

Helena Parkman, Principal Scientific Officer

Lilian Törnqvist, Senior Adviser

ALBANIA

ITP Participants (and year of participation):

Magdalena Cara, Agricultural University of Tirana (2009)

Mirela Buhuri, Ministry of Social Welfare & Youth (2009)

Merita Kucuku, National Agency for Medicines & Medical Devices (2010)

Neriona Vorpsi, NGO Ekomjeisis Durres (2010)

Vjollca Vladi, Food Safety and Veterinary Institute (2010)

Rovena Agalliu, Ministry of Environment (2011)

Elton Rogozi, Institute of Public Health (2011)

Mimosa Mukaj, General Directorate of Customs, Ministry of Finance (2013)

Eralda Hoxhaj, University of Tirana (2014)

Jonida Canaj, Institute of Public Health (2014)

Gentiana Shegani, Regional Directorate Berat (2014)

Daniel Sheti, Ministry of Environment (2016)

Mariglana Cmeta, Institute of Public Health (2016)

Other:

Farbardh Sallaku, Agricultural University of Tirana

Laureta Dibri, Ministry of Environment
Tomas Nystrom, Embassy of Sweden

BRAZIL

ITP Participants (and year of participation):

Cayssa Peres Marcondes, Ministry of Environment (2013)
Paulo de Toledo Alves, Ministry of Environment (today at Civil House) (2014)
Diego Costa Pereira, Ministry of Environment (2014)
Mirian Oliveira, Ministry of Environment (2014)
Alberto Da Rocha Neto, Ministry of Environment (2015)
Débora Máximo, IBAMA (2015)
Jorge Luiz Nobre Gouveia, CETESB (2015)
Lady Virginia Menezes, CETESB (2015)
Simone Kimura Takeda, CETESB (2015)
Edson Haddad, CETESB (2015)
Luiz Gustavo Mandalho, Ministry of Environment (2016)
Camila Arruda Boechat, Ministry of Environment (2016)
Thais Araujo Cavendish, Ministry of Health (2016)
Jeane De Almeida Fonseca, Brazilian Health Regulatory Agency (2016)
Ruben Maia Dias Ledo, IBAMA (2016)

Other:

Rafaela Maciel Rebelo, IBAMA
Rubia Kuno, CETESB
Cecilia Lif, Embassy of Sweden

SERBIA

ITP Participants (and year of participation):

Olivera Pavicevic, Ministry of Agriculture & Environmental Protection (2009)
Jelena Mijatovic, Ministry of Agriculture & Environmental Protection (2009)
Suzana Andrejevic Stefanovic, Ministry of Agriculture & Environmental Protection (2010)
Snezana Joksimovic, Ministry of Agriculture & Environmental Protection (2010)
Aleksandar Blagojevic, Ministry of Agriculture & Environmental Protection (2010)
Bojana Djordjevic, Ministry of Agriculture & Environmental Protection (2010)
Jelena Grusic, Ministry of Agriculture & Environmental Protection (2011)
Tanya Kovacevic, Ministry of Agriculture & Environmental Protection (2011)
Slobodan Zlatkovic, Water Consultant (2011)
Vojislava Bursic, University of Novi Sad (2013)
Aleksandra Rasovic, Ministry of Agriculture & Environmental Protection (2014)
Jelena Ilic, Ministry of Agriculture & Environmental Protection (2014)
Snezana Markovic, Ministry of Agriculture & Environmental Protection (2016)

Other:

Irena Alabanda, KemI
 Sonja Roglic, Ministry of Agriculture & Environmental Protection
 Aleksandar Vesic, Ministry of Agriculture & Environmental Protection
 Robert Nygard, Embassy of Sweden
 Slavica Markovic-Sandic, Embassy of Sweden
 Natasa Zoranovic Divic, Embassy of Sweden
 Simona Drijaca, Embassy of Sweden

TANZANIA

ITP Participants (and year of participation):

Caroline Lyimo, Ministry of Industry and Trade (2013)
 Everlight. C. Matinga, GCLA (2015)
 Hadija Saidi Mwema, GCLA (2015)
 Daniel Ndiyo, GCLA (2015)
 Myhayo Maguta, TIRDO (2015)
 Diomedes Kalia, Minister of Agriculture (2016)
 Andrew Ugolole, National Environment Management Council (2016)
 Nusura Ndee, National Environment Management Council (2016)

Other:

Professor Manyele, GCLA
 Sabanitho Mtega, GCLA
 Fidelis Segumba, GCLA
 Gerald Mollel, GCLA
 David Elias, GCLA
 Josephine Kalima, GCLA
 Lucas Ndunguru, GCLA
 Edith Wibald, GCLA
 Virginia Mongi, Embassy of Sweden
 Deogratius Donard, PMM Estates Ltd, Inland Container Depot

ZAMBIA

ITP Participants (and year of participation):

Moses Mutambala, ZEMA (2009)
 Chrispin Simwanza, ZEMA (2010)
 Maxwell Chibanga, ZEMA (2010)
 Choolwe Kaliba, Drug Enforcement Agency (2010)
 Bruce Simfukwe, ZEMA (2012)
 Kellys Mwelwa, ZEMA (2012)
 Mfuta Ray Kamekela, Bureau of Standards (2015)
 Webby Simwayi, ZEMA (2016)
 Mwape Kamanga, ZEMA (2016)

Josephat Sichula, ZEMA (2016)
 Lloyd Nundwe, ZEMA (2016)
 Simon Tembo, ZEMA (2016)
 Dominic Phiri, Bureau of Standards (2016)

Other:

Brown Chibale, ZEMA
 Rodwell Chandipo, ZEMA
 David Kapindula, ZEMA
 Fredrick Muyano, ZEMA
 Klas Ljungberg, Embassy of Sweden
 Cecilia Brumer, Embassy of Sweden
 Pezo Phiri, Embassy of Sweden
 Ngosa Mbolela, Embassy of Sweden

Skype/telephone interviews with ITP Participants in countries not visited:

Nyuthe Samuel, Kenya (2010)
 Phung Minh Loc, Southern Pesticide Control & Training Centre, Vietnam (2014)
 La Thi Nga, SOCODEVI, Vietnam (2014)
 Smiljana Knezevic, Ministry for Foreign Trade & Economic Relation, Bosnia (2014)
 Wai Phyo Aung, Ministry of Health & Sport, Myanmar (2015)
 Agatha Kemunto Kenya Industrial Research Development Institute (2015)
 Renata Obradovic Popovic, Republic administration for inspection activities, Bosnia (2016)
 Gheorghii Turacnu, National Center of Public Health, Moldova (2016)
 La Thi Nga, Research Center for Environmental Technology and Sustainable Development, Vietnam (2014)
 Vu Duc Thao, School of Environmental Science and Technology, Vietnam (2014)
 Hien Nguyen, School of Environmental Science and Technology, Hanoi University of Science and Technology, Vietnam (2014)
 Loan Nguyen, Vietnam Chemicals Agency, Vietnam (2014)
 Tran Minh, Hanoi, University of Science and Technology, School of Environmental Science and Technology, Vietnam (2015)
 Hoa Tran, Ministry of Agriculture and Rural Development, Vietnam (2015)
 Nguyen Binh, The Centre for Environmental Monitoring, Vietnam (2015)
 Le Viet Tanh, Vietnam Chemicals Agency, Vietnam (2015)
 Loc Phung, Southern Pesticide Control and Training Centre, Vietnam (2016)
 Tatiana Stratulat, Institute of Genetics, Physiology and Plant Protection of ASM, Moldova (2014)
 Raisa Scurtu, National Centre of Public Health, Moldova (2014)

Annex 3 - List of Documents Reviewed

- Slutrapport ITP 258 "Strategies for Chemicals Management" (KemI 2013)
- Questionnaire ITP 258 Q2 Africa/ Asia/ Europe 2007-11 (KemI)
- Activity Reports ITP 299 Africa/ Asia/ Europe 2012 – 15 & Annexes (KemI)
- Preliminary Activity Report ITP 299 Africa/ Asia 2016 & Annexes
- Preliminary Financial Summary ITP 299 Africa 2016
- Annual Reports 2012 – 16 & Annexes & Agendas
- Draft Indicators 2013
- Sida Evaluation Guidelines 2010
- DAC Quality Standards for Development Evaluation
- Looking Back, Moving Forward: Sida Evaluation Manual, 2nd revised edition, Stefan Molund
- Göran Schill Sida 2007
- Sida at Work: Manual for Sida's Contribution Management Process 2012
- Evaluation of ITP 299 – Strategies for Chemicals Management: Implementation Proposal
- Shared Responsibility: Sweden's Policy for Global Development 2002
- Strategy for capacity development and collaboration 2011–2013 (Swedish Government)
- Management Response for KemI – Appendix 2 Call-Off Request
- Evaluation of ITP258 for the purpose of identifying improvements of ITP 299
- Service Agreement ITP-KemI
- Change Management Projects & Reporting: Albania/ Brazil/ Serbia/ Tanzania/ Zambia 2010 – 16
- Change Management Projects: Guiding Questions Asia/ Africa/ Europe
- Module Descriptions
- Module Evaluations Asia/ Europe
- Evaluation Study Visit & Comments 2016
- Overall orientation and guidance for achieving the 2020 goal of sound management of chemicals (SAICM 2015)
- Programme specification for the next ITP in Chemicals Management
- Human Rights Based Approach at Sida: Compilation of Thematic Area Briefs (2015)
- *Report on Bilateral Cooperation between Brazil and Sweden on the Sound Management of Chemicals (2016)*
- *Overview on chemicals control legislation*. Ministry of Environment, Cayssa Marcondes
- *Fundamentação e Elementos Técnicos: Anteprojeto de lei que dispõe sobre o cadastro, a avaliação e o controle de substâncias químicas industriais*. Ministério do Meio Ambiente. Brasília 28 de Junho de 2016
- National Training Programme on Chemicals Management, Brazil 2016

- National Environmental Approximation Strategy for the Republic of Serbia by the Ministry of Environment, Mining and Spatial Planning 2011
- Industrial and Consumer Chemicals Management and Control Act 2003 (Tanzania)
- Industrial and Consumer Chemicals (Management and Control) Regulations 2004 (Tanzania)
- National Environment Policy 1997 (Tanzania)
- National Environmental Management Act 2004 (Tanzania)
- Environmental Management Regulations 2009 (Tanzania)
- Occupational Health and Safety Act 2003 (Tanzania)
- Mineral Policy 2009/ Mining Act 2010 (Tanzania)
- Mining Regulations 2010 (Tanzania)
- National Health Policy 2007 (Tanzania)
- Food, Drugs and Cosmetic Act 2003 (Tanzania)
- Tropical Pesticides Research Institute Act 1979 (Tanzania)
- Pesticides Control Regulations (Tanzania)
- Fertilizer Act 2009 (Tanzania)
- National Strategy for Growth and Reduction of Poverty 2010 (Tanzania)
- Tanzania Development Vision 2025 (Tanzania)
- Constitution of Tanzania
- Prevention and Combating of Corruption Act (Tanzania)
- Prevention and Combating of Corruption Bureau (website) (Tanzania)
- Tanzania Country Profile (Transparency International 2017)
- *Tanzania Human Rights Report* (Tanzania Mainland Legal and Human Rights Centre 2015)
- *Closing civil society space in East Africa* (Westminster Foundation for Democracy 2017)
- *Tanzania Emerges Top On Managing Chemicals* (All Africa 2017)
- *Africa Review Report on Chemicals* (United Nations Economic Commission for Africa 2010)
- *Project Report 2014-02 (Tanzania)* (Stockholm Environment Institute 2014)
- *Status of Chemical Management in Tanzania* (Geoffrey Evarista Bakanga)
- *2007 Chemicals Law* (Tanzania)
- *Plant Protection and Quarantine Law* (Tanzania)
- *Food Hygiene and Safety Law* (Tanzania)
- *Pharmacy Law* (Tanzania)
- National Policy on Environment 2007 (Zambia)
- Environmental Management Act 2011 (Zambia)
- Vision 2030
- Constitution of Zambia 1991 (Zambia)
- Constitution Amendment Bill 2016 (Zambia)
- UN Universal Periodic Review (UPR) Stakeholder Submission: Human Rights in Zambia 2012)
- Anti-Corruption Act (Zambia)
- Anti-Corruption Commission (web portal) (Zambia)

- Country Profile: Zambia (Transparency International 2017)
- UNDP-UNEP Partnership Initiative – Zambia (web-page)
- Need to harmonise chemical labelling (Zambian Daily Mail 2016)
- Zambia: Educating Children on Hazardous Product Safety (USAID)
- Zambia: Agriculture and Food Security (USAID)

Annex 4 - Country Report Albania

1. Introduction to the state of chemicals management in the country

National strategies and policies for chemicals management

Albania was identified as potential candidate for the EU membership during the Thessaloniki European Council summit in June 2003. In the same year, Albania adopted a series of legislative acts to establish a national framework for chemicals management, as well as subsequent ministerial decrees for implementation of these, in particular:

Law No.9108 of 17.7.2003, providing measures for inventory, notification and registration of chemical substances, manufactured or imported as such or in preparations, as well as rules on testing, classification and labelling of these, before placing them on the market. According to this law, the Ministry of Environment has the role of setting and maintaining a National Register on substances and chemical preparations manufactured, imported and placed on the market. The Decision of Council of Ministers No. 824 of 11.12.2003 provides implementation measures on classification, packaging, labelling, storage and transport of hazardous substances and preparations.

However, most of these legislative provisions were not implemented in practice, as currently Albania does not have a national chemicals inventory, neither a national register for chemical substances or preparations, nor a poison centre. To date, the traceability of the chemicals movement (imports mainly) is done via the customs office and through the tariff codes. The economic operators are not aware of their obligations and there are no enforcement mechanisms, neither a national contact point nor national helpdesk. The territorial inspections cover mainly the chemicals conformity check (if the stocks are consistent with what was declared at the customs).

Currently, the Ministry of Agriculture hosts a pesticides registry and the Ministry of Health hosts a biocides registry. The Ministry of Environment, from where two ITP participants hail, will be developing an industrial chemicals registry.

Under the EU-funded Technical Assistance and Information Exchange (TAIEX), an expert from KemI supported the Ministry of Environment in the drafting of the laws related to chemicals management during 2015 and 2016 with an input of around five weeks.

The lack of funding was pointed as a main hurdle in the implementation of these legislative acts, but equally lack of political support/ cohesion, as significant organizational restructuring in the ministries takes place after each election. Also, involve-

ment of too many ministries created a void in coordination and leadership, leading to inaction.

As regards the hazardous waste management, there are legal provisions addressing especially hazardous and biohazardous waste, but to date there is very limited infrastructure to address the practicalities (only 3 private companies that treat the industrial chemical and pharmaceutical waste).

As the Albanian economy is dominated by services followed by agriculture, the chemicals manufacturing industry accounts for a very small percent, and this is mainly oil production. To date, there are no significant chemicals stockpiles and the import of chemicals concerns mainly agrochemicals (pesticides and fertilizers).

Following the formal application to the membership of EU in 2009, Albania speeded up the process of alignment to the EU Environmental *acquis*. Thus, In 2011, Albania adopted again a series of legislative acts, aiming to transpose EU environmental legislation into national legislation and covering the management of chemicals through their entire lifecycle, such as air quality, emissions, accidental releases, waste management (transposition of directives such as IPPC Directive, LCP, Seveso II, PRTR and Liability Directive) as well as agrochemicals (fertilizers and pesticides), biocides and other relevant legislations related to workers or consumers health and safety (e.g. restricted substances in children articles).

Following the assension status granted by EU in 2014, the Albanian Ministry of Environment drafted an Inter-sectorial Environmental Strategy 2015 – 2020²⁴ seeking fulfillment of the SAICM goals. The alignment with of national chemical legislation to REACH took a leap in 2015, when Albania notified WTO on the new legislation on chemicals²⁵ to be implemented as of end of 2015. The notifications covered REACH and CLP alignment, GHS implementation, SVHC authorization and international trade of dangerous chemicals. Under the EU-funded Technical Assistance and Information Exchange (TAIEX), an expert from KemI supported the Ministry of Environment in the drafting of the laws related to chemicals management during 2015 and 2016 with an input of around five weeks.

The legislation harmonising with the EU rules has been adopted and it is expected to

²⁴ http://www.mjedisi.gov.al/files/userfiles/Transparence_dhe_Pjesmarrie/draft_SNM_2015_-_2020.pdf

²⁵ [List of WTO TBT Notifications submitted by Albania in 2015](#)

enter into force as of March 2018, repealing the existing legislation. A Chemical office was set up within the Ministry of Environment, to lead on chemicals management, but none of the ITP participants were selected to be part of this office. It is acknowledged that no enforcement mechanisms have been established so far and that technical capacity and expertise still lack.

Currently, the Ministry of Agriculture hosts a registry on pesticides and the Ministry of Health hosts a biocides registry. The Ministry of Environment, from where two ITP participants hail, will be developing an industrial chemicals registry.

Institutional Structures

The Ministry of Environment has the lead in developing strategies and policies for chemicals management, as well as setting up infrastructure to deal with certain aspects of chemicals management. The newly created Chemical Office it is expected to lead in the near future.

There is a National Environmental Agency in Albania with the mandate to monitor environmental indicators and components in: air, waters, soil, forests and biodiversity but its remit does not include hazardous substances.

However, several ministries, agencies, and other institutions are involved, such as: Ministry of Health, Ministry of Finance (customs), Ministry of Transportation and Infrastructure, Ministry of Social Welfare and Youth, Ministry of Agriculture, Rural Development and Water Management and Ministry of Energy and Industry. The implementation of the chemicals management legislation requires inter-institutional agreement and cooperation, and overlapping mandates among ministries and other state agencies (e.g. national Environmental Inspectorate, State Sanitary Inspectorate and State Labour Inspectorate and the territorial inspectorates) are seen as a challenge in the implementation of the new legislation.

Domestication of Multilateral Environmental Agreements

Albania has signed and ratified the following multilateral agreements:

- the Stockholm Convention signed in 2001 and ratified it in 2004, when a National Action Plan was developed. The Ministry of Environment in cooperation with the GEF-UNDP worked on preparing an inventory the POPs in Albania. Stockpiles of lindane and HCH were confined and the site was decontaminated. To date, Albania has no POPs stockpiles.
- Rotterdam Convention ratified in 2010
- Basel Convention ratified in 2010
- Convention on Long-range Transboundary Air Pollution (CLRTAP) in 2005

GHS

Currently Albania does not implement GHS. The alignment with CLP as of March 2018 it is expected to fill the gap.

2. Evaluation methodology

A total of 13 ITP participants out of a total of 19 who attended that ITP were met. Nine of these 19 belonged to ITP 299, while 10 were from ITP 258. Those ITP participants who could not be interviewed had either emigrated or work abroad. One participant's whereabouts were unknown. Of the 13 participants interviewed, two are male while the remainder are female.

The ITP participants have come from a range of institutions. Four have been from the Institute of Public Health, three from the Food Safety and Veterinary Institute and two from the Ministry of Environment. The others came from NGOs, universities or other government bodies. Five of the 13 can be considered to be junior-level professionals while the rest are mid-level.

The Dean of the Agriculture & Environment Faculty where one ITP participant teaches was also met, as was the Head of Air and Climate Change Sector at the Ministry of Environment from where there have been two ITP participants. A meeting was held with the First Secretary of the Embassy of Sweden.

3. Findings

3.1. Relevance

The training programme was considered highly relevant to the priorities of Albania in terms of chemicals management, as Albania strives to align to EU REACH (expected enforcement March 2018). In general, chemicals management can be considered to be in its nascent stage in Albania. Awareness of the issue is extremely low, both amongst the public and within government. Further laws still require drafting and approval, systems and processes have to be developed, and capacity built of concerned government institutions and industry. Within this context, the training addressed the needs of the participants as it was generally acknowledged that Albania still lacks technical capacity and expertise in dealing with chemicals. Interviewees reported a high degree of satisfaction with the training content, and for most of them the training structured, consolidated and enriched their previous knowledge. They illustrated how certain modules were particularly useful (especially Project Management) and how this knowledge helps them to progress with their change project or other connected projects (obtaining funds, approval and priority from their institutions, bringing the chemical issues on the political agenda, etc.).

Some specific points were raised by interviewees, such as following:

- The relevance of modules varied between participants and their own institution, due to their specific educational background, their role and the priorities of their own institution.
- Due to Albania's specific context, the participants find highly relevant the learning about the enforcement and they stressed the need to build further capacity in that direction.
- Some of the participants were better placed to continue with their change project, whereas for others the shift in politics and priorities of their own institution made it challenging (if not impossible) to continue their specific project. Therefore, the relevance of their individual projects varied.
- As the Albanian economy is based mostly on services and agriculture and the size of the manufacturing industry is not significant, priority is given to the agro-chemicals, where there is a certain degree of awareness.
- The participants from the academia had better chances in succeeding with their projects (awareness campaign on pesticides and national database of pesticides), as they could engage in partnership with local industry.
- The Project Management module helped them to develop soft skills needed to successfully pursue their day to day activities.

With regards to cross-cutting issues, most of the participants could not make the connection between human rights, gender issues and chemicals management. They recalled the debates during the training programme, but not a structured approach and neither an illustration of these. However, certain aspects were mentioned related to disposal of pharmaceuticals and contamination of groundwater with active ingredients that induce microbial resistance and can become a national health issue. The human rights issues were mainly associated to water and soil pollution and the effects on vulnerable populations (children, pregnant women, elderly). The connections between chemicals management and corruption were very vague, as well.

3.2. Efficiency

Participants stated that they learned a lot about chemicals management: about EU policy and legislation regarding chemicals management, the European Chemicals Agency (ECHA), risk and hazards assessment, the management of pesticides and GHS – the Globally Harmonised System of Classification and Labelling of Chemicals,

Reflections of ITP participants on the courses taught in Sweden:

'I think that was one of the best times of my life'

'You can listen to Anders for hours and not get tired'

'For me, the ITP was wow. We had live examples and movies.

Knowledge helped me to classify chemicals better' (The participant works on classification of goods for customs.)

'I remember that time with nostalgia'

'The course was perfect'

'I got my questions answered.... The style of presenting projects was very nice.'

'The course is perfect in every aspect'

project implementation, biocides, how chemicals management is undertaken in Sweden and other topics.

They talked enthusiastically about the project planning module and how it has helped them in developing proposals and projects that are logically structured, and realistic in terms of achievable objectives.

Visits to the Swedish Poisons Information Centre in Stockholm, the Coca-Cola bottling plant in Kiev in Ukraine during the regional phase, SCANIA - the Swedish automotive industry manufacturer of commercial vehicles, and the paints and varnishes company were described as interesting and informative. Interactions with Swetox, which is the Swedish Toxicology Sciences Research Centre, inspectors and the Swedish Environmental Protection Agency, and visits to Uppsala University and municipalities were found to be instructive. Overall, there was a high degree of satisfaction with both the course content and how it was delivered.

3.3. Effectiveness

Generally, in Albania, participants have not been able to make full use of the skills and knowledge learnt during the ITP programme, and in many cases they have not been able to fully implement their change management projects. There has generally been a sense of frustration amongst ITP participants that their ideas are not adopted by their organisations, their senior management is uninterested in chemicals management generally and in their projects specifically, and that the organisations are ill-resourced (both technically and financially) to implement the projects fully. Then, out of the 13 participants, at least five could be considered to be junior-level, i.e. not in a high enough position of responsibility or authority to demand attention to their projects. Still, as can be observed below changes have occurred at smaller scales. There have been some legislative changes brought about with the contribution of ITP, changes did occur in some industrial sites, awareness raising was undertaken and in the case of biocides, nationwide training of staff of the local public health directorates was implemented.

One participant from the Agriculture University of Tirana initiated a website on pesticides in Albanian. However, the lack of funding resulted in the website having to close after a few years. Five years later, she applied to SAICM (Strategic Approach to International Chemicals Management) for a grant through the NGO she was affiliated with. The website was started in 2015 and funding for it has been granted for a three-year period. The purpose of the website is to raise awareness amongst the public regarding pesticides. It contains information on registered pesticides, active substances, distributors and suppliers of pesticides in Albania, and educational information about pesticides using different forms of multimedia such as videos and images.

The website is now fully functional and can be viewed in both Albanian and English. The students of the faculty assist in updating the website and producing posters, relating to pesticides, which are posted on it. Further, a publication called ‘guidelines on

how to register pesticides in the EU’ has been translated into Albanian and is available on the website. This Professor is also applying certain subjects such as toxicology taught in the ITP course in her own university courses.

Another ITP participant attempted a project on the management of pharmaceutical waste. According to her, companies and pharmacies dispose of unwanted pharmaceuticals in normal garbage or flush them down toilets. She states while there are guidelines for hospital waste, there are none for public pharmacies. During her visit to Stockholm in phase 2 of her course, KemI arranged a meeting for her with a pharmaceutical waste expert. She subsequently applied for funding from the Ministry of Environment, the Japanese aid agency JICA, UNDP and others including government sources but to no avail. Currently, seven years after she finished the ITP, she is applying for UNEP funding and is preparing the proposal to be submitted in June 2017. Under the project, she hopes to organise workshops on the issue involving the government, NGOs and pharmacies. In addition, she hopes to, under the project, establish a database for registration of obsolete pharmaceutical stocks. Such a database does not currently exist in Albania.

She was able to apply the knowledge gained during the ITP in a SAICM project on the development of a ‘National Profile of Chemicals Management Update 2012’ – a project in which she participated. The profile is available online at

http://cwm.unitar.org/national-profiles/publications/cw/np/np_pdf/Albania_National_Profile_final.pdf

A number of ministries and agencies were involved in the development of this profile.

Legislation on pesticides: One ITP participant who participated in 2010 supported the drafting of the legislation on pesticides led by the Ministry of Agriculture. The legislation was approved in 2012. She was hindered in her efforts to raise capacity due to a lack of interest.

Another project was on awareness raising on chemicals in toys, which three ITP participants undertook as a team on the suggestion and with the guidance of KemI. The three shared the tasks according to their areas of expertise / professions. One was responsible for testing as she worked in the laboratory of the Directorate General of Customs, the second was responsible for legislation as she worked in the legislation department in the Ministry of Economy and the third for awareness raising as she was engaged in an NGO. Ultimately, the project succeeded to introduce legislation regarding phthalates in toys, but there is still a need to follow up and align with the adaptations to technical progress changes in EU.

A subsequent project attempted to address the lack of awareness amongst parents about chemicals in toys. The lack of awareness on the importance of proper chemicals management – both within government and amongst the general public - has been cited as a major problem by several interviewees. According to the ITP participant of this particular project, parents lack information and are influenced in their choices of

purchasing toys, by their children. She held separate meetings in three different kindergartens and was able to arouse the interest of the parents. The questionnaires she developed and applied before and after these awareness-raising sessions showed that there had been a positive change in parents' knowledge and attitudes. A total of 202 people attended these events. She contacted the media, journalists came to her Institute and a programme on the subject was aired on television. This led to other media outlets producing and airing programmes on the dangers of chemicals in toys, engaging other experts.

A second project in which Albanian ITP participants were encouraged to work together was on the impact of the leather industry on human health. Two of the participants worked on the analysis of river water and air inside the tannery - as both are analysts in the laboratory - while the third who was doing her PhD in the same subject and was a teacher at Berat University (currently she is an environmental specialist at the regional directorate in Berat under the Ministry of Health) focussed on implementation of improvement measures. The tannery in Berat was polluting surface water in the various stages of manufacturing. This affected the flora, flora, human health and recreation, caused the build-up of scum, discolouration of river water and the production of odours. The ITP course provided the participants the knowledge and guidance to pursue the project.

Targeting industrial pollution was also the project of another ITP participant from the 2009. At that time, she was the Environmental Specialist in Berat. On her return from the ITP, she delivered a UNDP-supported training course for other environment specialists based on her freshly acquired knowledge. A local factory producing batteries was polluting its surroundings with the discharge of lead. It had no filtration installed. She held discussions with the mayor, health and education departments, the agriculture directorate, local inhabitants and the lead factory owners themselves. She was especially concerned that poor inhabitants were being subjected to the discharge which was polluting fields and water. People were reporting illnesses, especially respiratory problems. She called a chemical analyst in who did the analysis of land, water and vegetables being grown there, and shared the findings regarding the lead content with the health and education departments, NGOs and citizens.

Projects in Albania, compared to Serbia, have generally been more modest in terms of outreach or results. For example, one change management project was on persistent organic pollutants in which the ITP participant attempted to raise the awareness of families inhabiting areas near a disused chemicals factory. Lands had been polluted and this was affecting humans, animals and plants. A total of 50 families, mostly represented by the youth, were conveyed messages in two such sites in different parts of the country.

It is observed that a number of ITP participants are quite junior in their organisations and thus limited in how much they can influence their organisations or bring about change beyond their organisations through their change management projects. A

number of them had graduated only recently from universities when they began the ITP course.

Changes in government and low competencies impede progress. In addition, a general observation by the evaluation team has been that decision makers and senior officials are either unaware or uninterested in the subject of chemicals management, and do not perceive of it as a priority. Implementation is also hampered because of the lack of collaboration between ministries. This is unfortunate, as Albania will ultimately need to harmonise its laws sometime in the future with those of the EU, if it wants to join the Union. It also means that government ministries and institutes have taken limited advantage of the skills and knowledge that the ITP course has developed within participants.

The Ministry of Environment by law has to develop a registry of industrial chemicals. One ITP participant from the most recent round wanted to initiate this registry as part of his change management project. However, the Ministry of Environment has limited IT expertise. Thus, having learnt from the ITP course what data should be in such a system, the ITP participant has developed a simple worksheet in excel in which only a single company has registered, as implementation of the law is thus very weak.

Former ITP participants have been invited by KemI to the informal dinners in Tirana when the regional phase has been held in Albania. This has provided them an opportunity to engage with the ITP participants from the region participating in that particular round. However, this has not resulted in sustained networking as will be discussed below.

A case of wider national level results can be observed in the case of the project initiated by an ITP participant of the 2011 round, in which trainings were conducted for the local directorates of public health and municipalities across the country in DDD (Disinfection, Disinsection, Deratisation). The first of these trainings was conducted before the participant started his ITP course. However, he states that the ITP course enabled him to sharpen his presentation skills and enhance his knowledge, enabling him to have great input in the workshops. Such trainings for government staff were conducted annually till 2015. In 2013, he assisted in developing a book on rodent control. For the trainings, his Institute collaborated with the private sector which provided financial support. According to him, the municipality staff now is aware of CLP (classification, labelling and packaging) and apply this knowledge, verifying that the pesticides companies are adhering to the guidelines.

3.4. Impact

Due to the constraints mentioned above, limited impact has been observed. The major impacts have been factories stopping the discharge of pollutants into their surrounds. A number of projects targeted awareness raising, and ITP participants state this has been successful.

In the case of the tannery project undertaken in a group by three ITP participants, though the factory owner was cooperative, the resolution of this issue has taken a while. The participants graduated from the ITP course in 2014, but it is only now that the owner of the tannery has informed that he is installing filtering equipment. The issue was apparently not willingness, but rather lack of resources to reduce the pollution – as he had early on installed mechanical filters to separate solids from liquids. As the ITP team member who is the local environmental specialist routinely monitors river pollution levels, she states that in the river Osum, pollution levels are lower and other parameters (pH, dissolved oxygen, turbidity, total suspended solids and so on) are improved.

In the case of the battery-producing factory, the owner of the factory was uncompromising, and finally the municipality shut down the factory. This did result in the loss of income of those employed there. The municipality prohibited further construction on the site and grazing of animals there. The out-of-bounds area encompasses a radius of 500 meters. The ITP participant who implemented this project says that before she embarked for Sweden, she felt this problem would be difficult to resolve but there she learnt how KemI planned and operated, and the importance of teamwork. Awareness on pollution hazards has risen in the local area. She says that though she has now moved onto heading the Social Services Directorate of the region, she still sees poverty through a chemicals management lens, and still tries to integrate environmental issues in her current work.

Regarding improved legislation, previously in Albania pesticides were being analysed twice for their composition – once at the border and once in the market, however only products from EU-origin are able to be registered in Albania and thus be imported. The legislation to test products only on entry into the country was drafted by the Ministry of Agriculture, and the ITP participant assisted in this. The law was approved in 2012. The ITP participant states that the course contributed to her better understanding to undertake this assignment. In another case, a government order on asbestos, prepared by a former ITP participant, was adopted by government.

3.5. Sustainability

Improvements in the skills and capacities of individual ITP participants will be sustained, but improvements within their organisations will require greater active interest by their senior management and the national government. The relevant government departments and agencies continue to need further support.

A new Sector on Industrial Accidents and Chemicals was recently established in the Ministry of Environment under the Directorate of Environmental Protection. However, the two former ITP participants from within the Ministry and their superior who is an expert on chemicals management have not been transferred to this new sector, thus they will have limited opportunities to deploy the skills and knowledge they have learnt through the ITP.

Overall, participants do not undertake any networking with fellow participants either within their Albania or from around the region, and if they do then it is limited. Friendships and informal exchanges do occur with ITP participants with whom change management projects were collaboratively done, otherwise it is surprising that ITP participants from one organisation are not familiar with participants from other organisations within the same country – even though Albania is relatively small. Few of the participants outside the Ministry of Environment have any engagement with it. Communication with KemI is greater, but also not by everyone and is quite infrequent. The holding of regional phases in Tirana did allow for ITP participants from different rounds and from both ITPs i.e. 258 and 299 to interact with one another, but that networking has not been sustained.

Projectplace – KemI’s online information sharing and information resource platform for ITP participants - also has limited usage and that too declines over time. Only recent participants of ITP 299 were introduced to Projectplace, and the more recent the ITP participants are, the more likely they are to be using it. Some of the participants state they have forgotten their passwords and thus cannot access Projectplace.

The Embassy of Sweden states that support will continue to be provided for work on approximation of chapter 27 of the *acquis* which focuses on the environment. This support will be provided through the Swedish Environmental Protection Agency and will focus on the environment as a whole, not just chemicals management.

3.6. Cross-cutting issues

Generally, participants failed to make the connection between good chemicals management and human rights, poverty and gender issues. Only one participant mentioned receiving brochures during the ITP course on how chemicals affect women and children, while another mentioned being provided videos on how chemicals affect human health. And only in one instance, the Social Services Director of Berat region – a former ITP participant – emphasised the linkage between the problem of chemicals management and its effect on poor people.

4. Conclusions

ITP participants have been very satisfied with the ITP course and commend both the subjects taught and the engagement and enthusiasm of the KemI staff members. KemI was able to target individual needs, e.g. in arranging meetings with experts on the topics of the projects that the participants had chosen. KemI also suggested changes to the topics, forming teams in a few cases so that ITP participants from different backgrounds could collaborate. The visits outside the lecture rooms to sites were stated to be both interesting and informative.

All participants implemented their projects, but with varying degrees of success. A number of projects targeted factories producing effluents, and were successful in awareness raising and reduction of the discharge of waste. There have also been a few legislative changes. However, projects which sought to improve systems and processes within the ITP participants' own organisations saw limited success. The reasons for this have been mentioned above and notably include the indifference of the government or senior management, the lack of capacities and resources, and the relative inexperience of the ITP participants.

The ITP participants in this country come from a number of different backgrounds and institutions. This, and that active efforts have not been made, has limited networking & experience sharing, and the development of a 'critical mass' of ITP alumni.

5. *Lessons learned*

While it is important to also recruit from universities for the ITP course, the Agriculture University of Tirana may not be the most appropriate university in Albania for this purpose. Interviewees have stated that the Faculty of Natural Science at the University of Tirana is the most suitable academic institution for KemI to recruit ITP participants from the academic/research sector.

The change management projects need to be owned by and meet an expressed demand of the organisation in which the ITP participant works. A number of participants, especially in the earlier years, were not funded by their organisations. Instead they had to seek funding from other sources or pay for the flight tickets themselves. In later years, KemI started supporting the cost of travel along with the other costs it had always financed, such as the stay in Sweden or wherever the regional phase was being held. However, the point being made here is that in earlier years, there appears to have been little ownership of the ITP initiative by the parent organisations of the ITP participants – evidenced by the fact that they were unable or unwilling to finance travel costs.

It may be because of a small pool of applicants to choose from, but selecting junior professionals was not the most ideal. They are new in their professions, on the lower rungs of their professional ladder and do not have the influence to be heard by senior management. This is also evidenced by the projects they undertook, which were small scale with isolated results.

It is disappointing that ITP participants were not selected for positions in the new Sector on Industrial Accidents and Chemicals established within the Ministry of Environment. However, this opens an opportunity for KemI to encourage the Sector's newly appointed staff to apply for future ITP courses.

Annex 5 - Country Report Brazil

1. Introduction to the state of chemicals management in the country

National Strategies

Brazil is now the eighth largest producer of chemicals in the world and aims to position itself among the fifth largest in the world by 2020. The chemical industry contributes to 10.5% of the Brazilian industrial GDP. At the national level, this sector contributes 2.5% of the national Gross Domestic Product (GDP) and provides more than 2 million direct and indirect jobs²⁶.

In relation to chemicals management, Brazil has put in place regulatory and legislative frameworks to control some chemical applications and specific uses, such as pesticides, wood preservatives, food additives, cosmetics, pharmaceutical products, weapons, explosives, lead in paints, pollution caused by oil and hazardous products in ships. These frameworks also cover specific substances like Polychlorinated biphenyls (PCBs), benzene, mercury, asbestos, chlorine, among others. However there is a wide range of substances, particularly those used in industrial processes that are not covered, and Brazil still lacks a fully functional system to manage the risks related to the production and import of such substances.

Legal Framework

The legal framework includes federal, states and local laws. The Pesticides management in Brazil has been governed by a law of 1989, which dictates the obligation of prior registration of these substances before they are produced, exported, imported, marketed and used. This process involves 3 institutions: National Health Surveillance Agency (ANVISA), Ministry of Agriculture (MAPA) and Brazilian Institute for Environment (IBAMA). Each of these three institutions assesses a different aspect of the substances. In addition, Brazil's 2010 National Solid Waste Policy outlines the obligation of the producers of hazardous waste to establish a plan to manage disposal.

Federal or state agencies can establish specific normative instructions in order to

²⁶ In Brazil-Overview on Chemicals Control Legislation by Cayssa Marcondes

promote safety in the production, trade, use and disposal of chemicals. States and municipalities can only make their own rules and can be more restrictive than the federal government; however, they must nonetheless respect federal regulations.

Institutional structures

The regulation of chemicals in Brazil is diffuse. Chemical safety is a cross-cutting issue that involves different ministries such as Occupational Safety and Labour, Health, Environment, Industry, Transport, Agriculture, Science and Technology, Foreign Affairs and others, each one with its respective institutional competence.

The Ministry of Labour and Employment regulates the use of chemicals in the work place. The Ministry of Labour also manages the classification and labelling of chemicals through the Global Harmonised System of Classification (GHS), an internationally agreed upon system.

The Ministry of Health (MS) has developed a series of actions in order to protect the population's health from risks related to exposure to substances. For example, chemical poisoning has been introduced into the National List of Compulsory Notification Diseases. The National Health Surveillance Agency (ANVISA) was created with the task of coordinating the actions of assessment, registration and re-evaluation of molecules and substances with regard to safety and efficacy for human health.

The Ministry of Environment coordinates the National Commission on Chemical Safety (CONASQ), a forum composed of 21 institutions, among them ministries, NGOs, universities, representatives of workers and of chemicals industries, that discuss and develops integrated actions. Each ministry has its own budget to finance its activities and programmes. It also coordinates the National Plan for the Prevention, Preparedness and Rapid Response to Environmental Emergencies with Dangerous Chemicals (P2R2).

Domestication of Multilateral Environmental Agreements

Brazil's ratification of several international agreements governing the use of chemicals, including the Stockholm, Rotterdam, Basel and Minamata Conventions, have enabled a valuable exchange of experiences and flow of information on risks posed by chemicals. However, some actions to restrict or prohibit chemicals remain limited due the lack of a comprehensive national regulation/legislation. In a step towards strengthening its national framework, Brazil finished its National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants (POPs), in 2015, including the new POPs.

Brazil also uses the SAICM, a global policy framework, as a point of reference to structure its national chemicals management policies. Several milestones have been

reached but it is recognised that it is necessary to strengthen institutions, laws and policy in order to address some existing gaps.

In addition, since November 2013 the Ministries of Environment of Brazil and of Sweden have undertaken bilateral cooperation covering, under the fields of mutual interest, the sound management of chemicals and focusing on two components: a) capacity building (through participation in ITP and holding workshops in specific topics in Brazil); and b) advisory support through the technical advice of experts from KemI regarding themes of the Chemicals Management Agenda. The ITP provided an opportunity to increase knowledge and more substantive inter-sectoral debate, with 19 trainees from Brazilian institutions in 3 years of interaction with experts from developed and developing countries.

Key chemicals management issues

The issues related to chemicals in Brazil are first of all related to the fact that this is an unknown problem to the society in general. It is not a priority in the political agenda and there is a lack of dialogue and cooperation among government institutions at either the federal level or between federal and state levels. A great number of chemicals are not covered by any existing legislation and the patchwork monitoring system of the chemicals are also crucial issues affecting chemicals management in the country. Further, some of the existing regulations are old and need to be updated.

Thus the passage of comprehensive legislation for the control of chemicals, as well as the establishment of a harmonized system of classification and labelling of chemicals in Brazil is essential and is being addressed. A proposal of a draft law²⁷ that aims to broadly regulate dangerous industrial chemicals was subject to public consultation in June 2016 and is planned to be sent to the Congress by the end of 2017. The federal agencies responsible for environmental, health, labour and industry sectors will be in charge of the enforcement of this law. Its implementation will involve authorities in the federal states and municipalities. This requires strengthened capacities at these levels to enforce the national laws.

2. Evaluation methodology

This report is based on a review of documents collected in the country and on group and individual interviews carried out during April-May 2017. Of the total 19 participants of the ITP 299 programme (nine men and ten women) nine are representatives

²⁷ The Draft Law was drafted within the framework of the CONASQ, by a Working Group composed of representatives from the public, private and civil society sectors.

from the Ministry of Environment, four from IBAMA, one from ANVISA, one from the Ministry of Health and four from CETESB in Sao Paulo. Out of 15 ITP participants in Brasilia, eight were met, two were interviewed by Skype and one by email. Of the four participants who could not be interviewed, three were on leave (maternity and studies) and one had moved to Sao. Paulo. The four representatives from CETESB were interviewed by Skype. Apart from that, meetings were held with officials from IBAMA and the Embassy of Sweden in Brasilia.

3. Findings

3.1. Relevance

The participants in general consider the course very relevant as it responds to the needs of the country, the target institutions and the citizens. The programme objectives and activities are very much in line with national policies and strategies as reflected in the Programme of Environmental Quality in the Federal Multiyear Plan which has the objectives to improve the chemicals management.

The ITP content also corresponds to the deficiency in knowledge of the organisations and individual participants. The country is increasing efforts to propose strategies and actions related to chemicals management, so the ITP was a strong tool to improve technical capacity of the participants to develop their current activities related to chemicals management. As shown in the statements below:

“Our country is still not at an advanced level of chemical safety and the experience and knowledge acquired were essential to help us develop this issue”.

“Chemicals management in a broad framework is not yet established in the organisations such as Ministry of Health and not even in the Ministry of Environment”.

The change projects were considered of great importance as they provided an opportunity to develop projects directly relevant to the needs of the organisations. Several issues, ranging from Brazil’s political situation to limited resources available for project implementation meant that some projects could not be fully implemented. That said, the projects succeeded in provoking debates around chemicals issues. As highlighted by one participant “The project assisted in the elaboration of a proposal to enhance GHS implementation in Brazil and to discuss several principles on chemicals safety in the action developed by the participant”.

3.2. Efficiency

According to the Memorandum of Understanding with KemI, Brazil could participate in the ITP with 2-3 representatives per course. For the Brazilian participants, the recruitment process, coordinated by the Ministry of Environment, was efficiently done and appropriate candidates were selected. In addition to the Ministry of Environment,

the participating organisations included the Ministry of Health, National Health Surveillance Agency (ANVISA), Brazilian Institute for Environment (IBAMA) and Environmental Agency of Sao Paulo State (CETESB)

The structure of the ITP was divided into 5 phases. It included a preparatory phase in-country, three and a half weeks in Sweden, an interim period for working on change projects and then a regional seminar and a finalisation period. This is considered optimal to enhance the knowledge and skills on chemical management. The duration of eight months is also seen as enough for initiating the change projects but not for completing their implementation. As mentioned by one participant from the Ministry of Health:

“Unfortunately, the institutional processes in my country are very slow, especially when the project demands some collaboration with other institutions. Besides that, we are very few people working with chemicals management in the Ministry of Health, so we need to overwork to implement anything beyond our regular tasks”.

3.3. Effectiveness

The participants expressed that they had an amazing opportunity to increase knowledge about the themes addressed in the training, because they had access to “excellent lectures with experts that work directly with management of chemical substances), good didactic material and many other options to study were offered, such as resource materials, site visits, the on-line platform Project place, etc.”.

When back home, the participants could share the knowledge within their organisations by organising small sessions on chemicals management, putting together the key messages from KemI and making available all the material and information provided by KemI. Some participants could even contribute to initiatives outside of their organisations. These included participation in the discussions and negotiations under the Environmental National Council (CONAMA), forums of discussions with OECD technical teams on chemicals management, participation in the SAICM 5th ICCM²⁸, and also in the Conference of the Parties of the Basel, Stockholm and Rotterdam Conventions. Discussions with the private sector and labour sector related to the standards for chemicals exposure and classifying and labelling chemicals in the work place were also mentioned.

The CETESB, Ministry of Health and Ministry of Environment shared knowledge

²⁸ ICCM International Conference for Chemicals Management

gained by the ITP amongst their respective members within CONASQ,. They also had the goal of replicating the training programme on chemicals management²⁹. However due to budget cuts this has not yet been possible.

According to the participants the gained knowledge has improved their regular activities as a whole. They are applying the knowledge in the areas for which they are responsible, such as in mercury management and GHS discussions. In the case of the Ministry of Health, the newly acquired knowledge is being used for building the institutional framework for chemicals management in the health sector. As for IBAMA, the discussions have been centered on the risk evaluation of chemical substances, especially pesticides and IBAMA has been working very hard on the implementation of this process, using as reference the guidelines from Europe Food Safety Authority (EFSA) that were shared in the ITP.

“The course allowed to enlarging the vision on the management of chemical substances”

Though not all change projects could be fully implemented for various reasons important results have been achieved. Some of change projects developed had important contributions to the activities of the national institutions and national debates regarding chemicals management. Examples of these projects are listed as follows:

- A handbook of chemicals with GHS information produced.
- A change project introduced some concrete steps towards implementation of the Minatama Convention within the health sector.
- Discussions around the need to implement GHS in the country were highlighted, as were discussions on how best to implement it. For now, the Ministry of Environment has chosen to propose a law on industrial chemicals that addresses GHS.
- A survey of components and initial conclusion for a proposed “Proposal of assessment of co-formulants of plant protection products”.

²⁹ The CETESB/SCRC's ITP project consists of structuring and implementing a National Training Programme on Chemicals Management based on the Brazilian participants' experience from the ITP 299 - "Strategies for Chemicals Management", and adapted to the national context. For this purpose, it is intended to use CETESB's existing expertise in chemical and environmental management, its structure and experience to conduct this kind of training programmes. The project aims to improve the national knowledge on sound chemicals management, contributing to enhance the national capacity to plan, implement, enforce and evaluate the core activities of chemicals management. The idea is in a second phase to extend the training to participants from other Latin America and Caribbean countries.

- Development of a pilot diagnosis of the use of lead in paints in Brazil, in line with the Law 11.762/2008. This project led to close collaboration between Ministry of Health and INMETRO and arouse national interest and debate
- The start of a Questionnaire regarding implementation of the Overall Orientation and Guidance (OOG) from SAICM.
- A proposal for a National Training Programme on Chemical Management that will be hosted by CETESB. This would help to cover the needs for increased knowledge on this topic. The Ministry of Environment and CETESB foresee that knowledge on chemicals management will be increasingly important when enforcing the law on industrial chemicals particularly at the state and municipal levels.
- “Proposed strategy for toxicity assessment at CETESB” a change project that might contribute to the different units of CETESB to share same relevant toxicological information and toxicity data in their human health risk assessment activities.

The participants have highlighted important changes in their organisations that they can partially attribute to their enhanced knowledge. These are:

- Better knowledge about GHS and greater awareness about the dangerous chemical substances.
- The active work of the Ministry of Health on the elaboration of their draft law on the registration, assessment and control of chemicals.
- The leadership of the Ministry of Health on the Intergovernmental Network for Chemicals and Waste in the Latin America and Caribbean Region.
- The active work of the Ministry of Health in the World Health Assembly decision on the elaboration of a roadmap for the engagement of the health sector on chemicals management.
- The active work of the Ministry of Health at the first Meeting of the Intersessional Process for Chemicals Management beyond 2020.
- The presence and active work of the Ministry of Health in the Conference of the Parties of the Basel, Stockholm and Rotterdam Conventions.
- The quality of the activities related to chemicals management improved considerably after ITP and the analysts of the Ministry of Environment are aware about international practices that can be adapted to the country reality.
- Changes in the framework of IBAMA’s organisation with the creation of a new division "Division of Management of Substances" (DIGES - Divisão de Gerenciamento de Substâncias).
- The achieved knowledge allowed the improvement of specialized training in environmental areas, which focus on human health risk assessment due to chemical exposure. The database on toxicological information and other information about the chemicals at CETESB has been improved and streamlined into a single system.

In terms of networking the participants stated that they mainly keep contact with the

Brazilians colleagues who attended the ITP. A great number continued to be in contact with KemI on a regular basis about a variety of topics. The Ministry of Environment and other partners continue their contact with Kemi in order to develop bilateral activities, such as holding seminars in Brazil and offering technical support to the activities of the Ministry when it is needed. Further, the inter-sectoral initiatives like the National Forum of Chemical Safety were increased after ITP and so was the participation in the Latin America and Caribbean Intergovernmental Network on Chemicals and Waste. Other networks mentioned include RELASC, REQUILAC and REPIDISCA³⁰.

Most of the participants have expressed that the level of support provided by KemI was sufficient for their change projects. As stated “all tools we have available to support implementation and monitoring of the project are very useful. So, it was possible to keep contact with KemI at different moments - during the initial phase of project implementation and after the implementation began – which was crucial to support the Project”.

When asked about other agencies that could be targeted by the ITP, the participants suggested the following, most likely due to their role in the regulating chemicals in the country and their need to increased knowledge on chemicals management:

- Chemical Manufacturers Association
- National Institute of Metrology, Quality and Technology (INMETRO)
- Ministry of Development, Industry and Foreign Trade
- Ministry of Agriculture
- Ministry of Labour
- Private sector

3.4. Impact

The chemicals management monitoring is likely to increase a lot as Brazil moves forward with new legislation. Several actions are being taken to enhance the chemicals management in the country. Thus, a major contribution of the ITP is the draft of chemicals regulation that will considerably improve the management of chemicals in the country. This in turn will contribute to protect and reduce the impacts on the vul-

³⁰ RELASC - network on soil and groundwater contamination prevention, remediation, hazardous waste cleanup, and brown fields redevelopment for Latin America and the Caribbean.

REQUILAC - Chemical Emergency Web for Latin America and the Caribbean network

REPIDISCA - Pan American Network of Information in Environment

nerable population.

The participants have highlighted the work being undertaken on the national framework for registration, assessment and control of chemicals production and import, and the review of the national rule for chemicals standards on drinking water as examples of opportunities to positively impact the quality of air, water, soil and food. Another example is that the discussions of new regulations take into consideration principles to avoid chemicals contamination.

3.5. Sustainability

The participating organisations gained adequate knowledge but will continue to need capacity building, particularly involving other sectors such as industry, agriculture and health. One participant commented “The ITP provided a good and broad basis for learning and indicated the sources of more detailed and comprehensive information. We have approached a lot of other stakeholders to keep the process ongoing, and, of course, we keep in contact with Keml”.

Inter-sectoral initiatives were increased after ITP. This included the National Forum of Chemical Safety and the increased collaboration between CETESB and the federal agencies such as the Ministry of Environment, Ministry of Health and IBAMA, which according to the participants will allow for the improvement of the management of chemical substances in Brazil.

For some participants the ITP made a number of tools available such as the online platform ‘Project-place’ and lists with information of each one of the participants, that allows the continuous contact and discussion between the participants. However, the use of such platforms has been very limited, mostly being used to access documents, and tends to diminish overtime.

3.6. Cross-cutting issues

The opinions related to poverty reduction, the environment, anti-corruption, gender and human rights varied. Most of participants interviewed could relate to the programme’s effect on environment but not on the other issues which is explained by the fact that Brazil has adopted the Sustainable Development Goals (SDG) from the 2030 Agenda and has policies that seek to promote better environmental quality resulting in gains to the environment and the citizens. When considering the question as to how the programme design could be strengthened so that poverty reduction is more explicitly addressed, a participant answered “I don’t know since the role of the Brazilian environmental sector aiming poverty reduction is something that is still under discussion in the country”.

Some participants found it difficult to link those themes with chemicals management: “I identify a major link with human rights and gender issues (when talking about ex-

posure to chemicals) but it is very difficult to link chemicals management in Brazil and poverty”.

Some others have clear views on how chemicals exposure plays a different role in different segments of society especially when it comes to children, women and vulnerable populations such as indigenous people. “I identify links with human rights and gender (when we talk about chemicals exposure) since according to the Brazilian Constitution all citizens have the right to enjoy a satisfactory quality environment”.

Another perspective expressed by a participant “I believe that the lack of laws contributes to an enabling scenario for harmful practices regarding human rights, gender, the environment and the fight against corruption. But if we work hard to establish rules we will have another scenario: decisions practiced with impersonality, transparency and morality by the regulator, and this can avoid corruption and contribute to development of the nation”.

4. Conclusions

The ITP objectives have been relevant and in line with Brazilian government policies regarding chemicals management. Important results have been attained in terms of increased individual knowledge and institutional capacity to foster discussions and strategies on chemical management. A major result is the contributions to the development of a draft law to control industrial chemicals and a national policy on chemical safety, which will contribute to reducing the impacts on the environment and human health. With the national law, chemical monitoring is expected to increase. Based on the information in the National Registry, a database can be created and made accessible to the population on-line, providing transparency and updates on the substances used in the country and their classification of danger according to the GHS.

Also, it is obvious that the institutions are making use of the knowledge and tools acquired to make organisational changes and move the discussions forward. The change projects have been very relevant and supportive of such processes. Given KemI’s bilateral cooperation with the Ministry of Environment, the support and mentoring have been continued for the ITP participants and their colleagues which have contributed to enriching and sustaining their work. Still, regarding sustainability, even though the organisations have gained much knowledge, this will need to be complemented in the future, as the new regulations will bring new challenges, and the Swedish experience can help in meeting them.

In general, the ITP was a great learning opportunity and the participants really benefitted from gaining in-depth knowledge of chemicals management. They are satisfied with both the content and the structure of the ITP, though they find 3,5 weeks in Sweden too long, which is an issue that may hinder other stakeholders from participating in the programme. Despite the general positive results there is a common opinion that the cross cutting issues were not sufficiently duly covered by the ITP.

This reflects in the participants' difficulties in relating chemicals management to poverty reduction, gender, human rights, and anti-corruption.

5. *Lessons learned*

The engagement and understanding of the management is key and is a driving force for successful development and implementation of the change projects. The choice of candidates is also crucial and in the case of Brazil this has been very strategic. The participants are all in positions with mandates to apply changes in their organisations. The topics of the change projects have been carefully chosen and in line with the country's policies and organisations' needs. Most of these projects have been developed in groups of two or three with representatives from different institutions. This points to an understanding of the need of inter-institutional work to address common issues related to chemicals management.

The ITP has helped to develop change projects the life cycle of which goes beyond the ITP timeframe. Most of these change projects are still being implemented. It is important to take into account the pace in Brazil of institutional procedures which is normally slower and affects the advancement of the project objectives.

The continuous advisory support by KemI, as part of the bilateral cooperation, has been valuable to strengthening the institutional capacity and confidence to move things forward. This is important as it guarantees continuity of results in a longer term perspective.

Given that responsibilities for chemical issues are scattered in Brazil, the National Committee of Chemical Substances (CONASQ) has been the natural forum to work with chemical management in a more concentrated way. CONASQ has played and will play a crucial role in fostering engagement of various stakeholders, and discussions and strategies related to chemicals management in the country. Therefore its knowledge and coordination function should be reinforced.

In general, the staff turnover is very low and the technical knowledge is retained in the institutions. However, there is insufficient staff to deal with all the issues as necessary to guarantee the continuity of some projects.

Annex 6 - Country Report Serbia

1. Introduction to the state of chemicals management in the country

National strategies

In a sub-chapter, the National Environmental Approximation Strategy for the Republic of Serbia (December 2011) elaborates the strategy to be adopted for chemicals and genetically modified organisms (GMOs). According to it, EU directives will be transposed. The sector “will require institutional strengthening of inspection and enforcement through training programmes, as chemicals and GMOs are novel matters for the officials in charge and of a highly technical nature. Also, it will be necessary to organise training for the staff of the Serbian Chemicals Agency (on risk assessment, enforcement of specific REACH provisions and for the participation in the work of ECHA) and for the industry in order to help them in honouring their REACH obligations (which are very demanding and knowledge based).”

Legal Framework

Prior to the above-mentioned strategy the Law on Chemicals has been in place since 2009. This Law regulates integrated chemicals management including:

- classification, packaging and labelling (CLP) of chemicals.
- establishment of an integrated chemicals registry and registry of chemicals placed on the market.
- banning and/or restriction of manufacturing, placing on the market and use of chemicals, and also import and export of certain hazardous chemicals.
- permits for placing chemicals on the market and permits for use of particularly hazardous chemicals.
- systematic monitoring of chemicals.
- data availability, supervision and other issues of importance for chemicals management.

In the same year, the Law on Biocidal Products was also adopted which makes similar provisions for biocides.

These laws are approximated to the REACH, which is a 2006 EU regulation and addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. The country has applied the relevant parts of REACH, which can be transposed into legislation of a non-EU country (where centralized procedures can not be transposed). Thus while there is no registration, there is an integrated chemicals registry. Serbia established its own electronic database (see later), which helps to identify products marketed in Serbia and products eligible for registration under REACH. The intention is that once Serbia becomes an EU member,

it would have no obstacles to joining the work of the European Chemicals Agency (ECHA) and fulfil its obligation. As with registration, there is no authorisation but a list of substances of very high concern (SVHCs – see below).

Serbia does not currently undertake notifications or evaluations of active biocidal products. However, the Serbian Chemicals Agency established a national helpdesk, with the aim to provide relevant information and guidelines to industry and relevant stakeholders, to respond to their questions and help them in fulfilling obligations from national legislation.

Institutional Structures

The 2009 law directed the establishment the Serbian Chemicals Agency which became operational in March 2010 and towards the end of its existence had 42 staff. It took over the responsibilities previously assumed by the Ministry of Environment and Spatial Planning. The Agency was abolished in 2012 and the staff was absorbed into the Ministry of Energy, Development and Environmental Protection. In 2014, the ministries were reorganised yet again and the former Chemicals Agency became part of the Ministry of Agriculture and Environmental Protection as the Department for Chemicals. The Department for Chemicals is now the competent authority with the mandate of the former Serbian Chemicals Agency. While the latter had 42 staff, the Department only has 13. Most staff members left, while a handful were transferred to the Inspection Department for Environmental Protection within the same Ministry.

Aside from the Ministry of Agriculture and Environmental Protection, there are two other ministries which have inspection supervision mandated to them under the Law on Chemicals - Sanitary Inspection by the Ministry of Health and Trade Inspection by the Ministry of Trade. Both have inspectors but while it is stated they were invited to apply for the ITP courses, they did not express any interest in doing so. It is also stated that both these inspectorates have received many trainings, for example, through twinning projects. Both of the above statements have not been verified. The Veterinary Directorate within the Ministry of Agriculture and Environmental Protection also has a limited inspection role but again has had no participation in any of the ITP rounds. None of the three have the broad mandate or central role that the Department for Chemicals has regarding chemicals management.

Domestication of Multilateral Environmental Agreements

Serbia is party to the Stockholm Convention on Persistent Organic Pollutants (POPs). The law on ratification of the Stockholm Convention was adopted by the Serbian Parliament in 2009 and in the same year, the country adopted the National Implementation Plan for Implementation of the Stockholm Convention. Adriana, please elaborate regarding Basel and Rotterdam Conventions wrt Serbia.

International Cooperation

Serbia's cooperation with KemI began in 2005, with a first phase of the project "Chemicals Risk Management in Serbia" that concluded in 2010. This was followed by a 2nd phase from 2010 to 2015. A new project, continuing the collaboration with KemI, has now started with a duration from 2016 to 2020.

Apart from the collaboration with KemI, Serbia is also supported by an EU IPA (Instrument for Pre-Accession Assistance) Twinning project "Further Development of Chemicals and Biocides Management in the Republic of Serbia". The main goal of the project is to support Serbia in fulfilling the requirements of EU *acquis* in the area of environment and public health by institutional development and capacity building. The project aims to support the Department for Chemicals to develop new legislation on biocidal products aligned with the Biocidal Product Regulation (BPR), to enhance knowledge and skills necessary for chemicals and biocidal products management as well as for participation in the work of ECHA and EC bodies.

2. Evaluation methodology

Only one of the 18 participants of the ITP 258 and 299 programmes was not from the former Serbian Chemical Agency. She was a 2013 participant and is an assistant professor in the University of Novi Sad in the agricultural department. A total of 13 ITP participants were met, out of which 2 were male and 3 were female. Of the 13 ITP participants, 11 are currently working for the Ministry of Agriculture and Environmental Protection, either in the Department for Chemicals or the Inspection Department for Environmental Protection. Apart from that, meetings were held with ministry officials and the Embassy of Sweden in Belgrade. The five participants who could not be met were either abroad, had resigned their positions and move overseas or were on leave.

3. Findings

3.1. Relevance

EU accession is a major driver for the legislative and policy changes in chemicals management in Serbia. Serbia applied for European Union membership in 2009 and the European Commission recommended making it an official candidate in 2011. Negotiations with Serbia on its accession were opened in January 2014. It is likely to take several more years before Serbia does accede. This push for EU membership has been a significant reason for the development of chemicals management in the country.

At the same time, it is realised by certain elements in the Serbian government, particularly in the Department for Planning & Management of the Environment that chemicals management is fundamental to or the basis of many other laws and functions. It affects agriculture, food safety, health and the environment, amongst other issues.

Proper chemicals management is thus considered relevant, by some quarters, for the socio-economic development of the country.

In 2010, when the Serbian Chemicals Agency was established, the Agency did not know how to operate a help desk. According to the provisions of the Law on Chemicals, the Agency had to establish a help desk for providing information and professional instructions necessary for the implementation of the Law on Chemicals and Law on Biocidal products, to the economic operators, local self-government units as well as inspectors. Also, the Agency was expected to provide professional help to those entities who placed chemicals on the EU market or other markets.

The agency as well as the laws governing it when new. A Registry was required to document the chemicals being imported, manufactured and used in the country. However, the agency needed guidance on how to proceed on this. This support continued to be required as the country introduced new measures on classification, labelling and packaging (CLP), substances of very high concern (SVHCs) and biocides.

3.2. Efficiency

Serbian participants have very much appreciated the study tours that were organised during Phase 2 of the ITP course in Stockholm. Visits to Sakab, for example, which is one of Sweden's leading environmental companies in the field of non-toxic waste recycling, and to a paints and varnishes manufacturer were found both interesting and informative. It was remarked that practical exposure for a regulator is very valuable as he or she is able to see the effects and constraints regulation produces on the side of industry. Talks by representatives of the Swedish Environmental Protection Agency, the Swedish furniture and home appliances manufacturer and retailer IKEA and more such talks by the industry practitioners would be welcomed. The interactive sessions were appreciated and while the days were long with homework being assigned for the evenings, none of the participants complained of that being onerous.

The courses have been very much appreciated and considered very helpful. While the ITP participants were repeatedly asked, during the evaluation, whether they would prefer any changes to the structure i.e. the various phases, they stated that the structure was appropriate. However, a number of participants did suggest that more specialised modules should also be introduced. Serbian participants, particularly those of ITP 299, have been exposed to the basic concepts of chemicals management in their work, and through the bilateral projects implemented in cooperation with KemI and the IPA twinning. For many of them, some material was rather rudimentary. They pointed out that Serbia, for example, had laws in place and knowledge of legislation while fellow participants from Montenegro were still drafting theirs so the expectations or needs were different – and the different levels of implementation of national systems of chemical management can be a shortcoming when participants from different countries are pooled together. On the other hand, because Serbia is more advanced in chemicals management than many other countries from Europe participat-

ing in the ITP courses, its participants were able to relay to their course-mates what was being achieved in the country. Serbia was also used as an example by lecturers in course content.

In addition to the demand for more specialised modules, Serbian ITP participants state that as EU legislation is subject to frequent updates, special short courses would keep them abreast of such changes.

Overall, presentations have been described as of very good quality and comprehensive. One recent ITP participant remarked, “this is the first time I have a full picture of chemicals management. I found the organisation of events in Stockholm, both as a guest in that country and as a trainee, well done. I don’t have any suggestions on how to improve the course.”

The project cycle management module was particularly highlighted by a number of participants as being very professionally delivered. The lecturer’s style of communication and engagement, and simplifying the most complex of concepts was termed both interesting and beneficial.

It is evident that the projects undertaken by the Serbian participants produced results because of the stress that KemI mentors lay on projects being realised or showing some visible progress within a limited span of time of around six months, i.e. during the third phase of the ITP round. In a number of cases, this does encourage ITP participants to re-orient their original plans so that the projects are more practical and achievable. During this time, KemI keeps in contact with the ITP participants and responds efficiently to their queries.

As stated above, the only participant out of the 18 who has not been a staff member of the Serbian Chemicals Agency is a university professor of agriculture. She found, like the other participants, the ITP course very informative and useful. She stated that at her faculty, the focus on chemicals is too narrow. She recalled the ITP course included topics such as gender, anticorruption, project planning, chemicals and how to handle them. It has made her more conscious that at her university used chemicals are not safely disposed of and are washed down wastewater drains. Neither is recycling undertaken and there is no classification of waste.

3.3. Effectiveness

The effectiveness of the ITP course is more pronounced in Serbia because KemI also has a bilateral cooperation with the country going back several years. This means the engagement of KemI staff is more frequent and they are able to support the Department for Chemicals beyond the three months envisaged in phase 5 of any ITP round. In addition, they can help in strategically linking work done within the bilateral cooperation project with any intended change management projects because the Department and the staff are common for both projects. KemI continues to provide guidance

and support as the Department matures.

The helpdesk initiated when the Serbian Chemicals Agency existed still operates today and receives queries from businesses and civil society organisations. It was initiated in 2010 by the then ITP participants during their change management project as part of Serbia's harmonisation efforts with EU *acquis*. The helpdesk is supposed to support enterprises through helping clarify the very demanding provisions of REACH. The staff of the Department for Chemicals, who are former ITP participants, mention that the Chemicals Agency did not know how to operate a helpdesk, and they learnt from witnessing the KemI helpdesk in action during the visit to Sweden during Phase 2 of their ITP round. That exposure also helped to appreciate KemI's helpdesk website and gain ideas on how to prepare short summaries of legislation. They replicated ideas on the preparation of brochures and information leaflets that were disseminated to publicise the helpdesk amongst relevant Serbian stakeholders. Workshops regarding help desk services was organized in cooperation with the Serbian Chamber of Commerce, regional Chambers of Commerce, the parallel KemI bilateral cooperation project "Chemicals Risk Management in Serbia – phase 2" and the IPA 2008 Project "Assistance in the implementation of a chemicals management system in Serbia". Today, the industry is better prepared for legislative changes and the helpdesk acts as a source of support and guidance for them.

This was a great learning opportunity for the Serbian Chemicals Agency as both the Law on Chemicals and the Agency were new. The establishment of the helpdesk improved the efficiency of the Chemicals Agency and subsequently of the Department for Chemicals as queries could be responded to from a central location with the required resources and knowledge. Over the years, more recent ITP participants have further improved the functioning of the helpdesk through their own change management project. Information such as FAQs and statistical summaries regarding queries by industry and topic are now produced.

Moving on from the helpdesk, the chemicals registry has to be online and ITP helps in this. The development of a registry, a requirement under the Law on Chemicals 2009, was also a change management project. This was to be a comprehensive database on chemicals in the Serbian market, and as this set new obligations for producers, importers and distributors of chemicals, it was necessary to introduce these stakeholders to what was expected of them. Activities under this included the development of a bylaw rulebook for the registry, preparation of brochures for industry, development of guidelines for both industry and inspectors and the holding of workshops with the collaboration of the Serbian Chamber of Commerce. These workshops targeted businessman and inspectors. Additional trainings were organised with the regional Chambers Of Commerce, Customs Authority and other relevant stakeholders. Tours were also organised to Serbian cities to present the new legislation.

Thus, the awareness raising regarding the presence of a registry has gone on side-by-side with the development of the registry. The registry has become a useful source of

information for experts working on conventions, inspectors and bodies such as the Environmental Protection Agency. Here again, successive participants, through their change management projects, are building on the projects of their colleagues who were earlier ITP participants. In this case, a recent project was the online submission of dossiers by enterprises to the registry. This was to be done in collaboration with the bilateral cooperation project that KemI has with the Department for Chemicals. However, delays in the contracting of an IT specialist to install security measures in the system have meant that this change project been delayed.

Another change management project was on biocidal products. The law on biocidal products had come into force a few years earlier. In this project, the ITP participant had to assist industry to complete dossiers on biocidal products. The problem was that applicants requiring authorisation for placing biocidal products on the market did not have adequate knowledge to prepare technical dossiers. Steps included the holding of workshops and the preparation of guidelines for producers and importers. In Sweden, the participants had the opportunity to discuss the project with relevant people at KemI including learning how to evaluate the dossiers submitted. The Serbian Chemicals Agency organised a seminar for industry in order to introduce new regulations for placing biocidal products on the market as well as their future obligations under the new Biocidal Product Regulation. Around 40 representatives of producers and importers biocidal products were present. While the guidelines were developed and meetings with industry were held, the technical dossiers were not developed and not one company had provided the chemicals agency their technical dossiers by that time.

As mentioned earlier, the Law on Chemicals came into force in 2009. One change management project in 2010 was the further work on classification, labelling and packaging (CLP), as required under the law. Two rulebooks - one aligned with the EU directives, and the other aligned with CLP regulations of EU - had already been drafted and adopted. Under the project, the dissemination of the rulebooks occurred. Industry was trained in the application of the rulebooks. First, the chemicals agency developed its own knowledge and that of the environment and trade inspectorates and then that of industry, customers and NGOs. Visits to regional centres and appearances on television were also made. The particular ITP participant involved in this project stated that the chemicals agency would have done dissemination anyway, but because of the ITP course, they were able to execute it and explain it better.

Work on substances of very high concern (SVHC) was done in another recent change project. Such substances cause significant damage to human health and to the environment. They are widely used in industry without adequate knowledge about their adverse effects on human health and the environment. According to the Law on Chemicals, manufacturers, importers or downstream users are required to submit applications to the Ministry for the purpose of entering the data on such chemicals into the chemicals registry.

The project involved including SVHC as an annex in the rule book requiring industry to submit more details on which SVHCs they used, making changes to the registry and promoting awareness amongst industry about such substances. The intention was to make industry aware that SVHCs were dangerous and would be phased out. This was to make it easier for industry to adapt to changed requirements. The ITP participants developed the new Annex with support from KemI and after consultations within the Department, this Annex was approved by the government and adopted. The Ministry in cooperation with the Chamber of Commerce organised a workshop in 2014 in which 86 representatives from paints and varnishes, rubber, detergents, plastics, furniture, textiles and construction material industries and other institutions were present. The general guidance on SVHC was drawn from the parallel bilateral cooperation project. The aim of this workshop was to raise awareness on the risks associated with the usage of SVHCs, the importance of introducing safer alternatives and to inform about administrative procedures and measures prescribed by national and EU legislation with respect to SVHCs. A further workshop was organised in 2015, again in cooperation with the Chamber of Commerce, which was attended by more than 200 participants. Thus, this change management project was a very timely. The ITP participants who implemented this project stated that without the ITP, they would have had to hire external expertise, it would have cost more and taken longer.

Those ITP participants who later moved to the Inspection Department for Environmental Protection in the Ministry of Agriculture and Environmental Protection after the winding up of the Serbia Chemicals Agency have also found the training useful in their new roles. They state they are able to advise industry better as well as perform their tasks more competently.

The only ITP participant from outside the Serbian Chemical Agency stated that she has used what she learnt from the project planning module to develop around half a dozen funding proposals. She has also started including content on classification, labelling and packaging (CLP), and on EU directives in her lectures. Her change management project involved collecting monthly samples from the Danube river to promote awareness on the effects of farmers discarding empty pesticide packages into the river as well as the effects of pesticides leeching in to the river from treated soil. This was to demonstrate the harm it was causing to humans and aquatic life. Such pollution also impacts on the export of agricultural produce and food items. Working alongside her fellow professors, she and her students found that the samples showed high concentrations of pesticide in the river water. The research has been published, but to make the testing more rigorous and thus the scientific evidence more credible, she agreed with her former KemI mentor to approach the Ministry of Agriculture for its support to further continue this work. According to her, changes and transfers in government have meant she has not had the opportunity to develop any sustained dialogue there. However, she states there is a strong likelihood that a masters course will be developed at the university and content on chemicals management and on hazardous materials will be included in such a course. Nonetheless, she continues to raise awareness of the effects of pesticides and their packaging on both aquatic life

and human health – organising stalls at agricultural fairs in her town and engaging with the president of the local farmers union.

Generally, over time the use of Projectplace has declined. It was a later innovation anyway, and thus a ITP 299 participant is more likely to use it rather than a ITP 258 one. However, the general trend is that those ITP participants who are still fresh from the completion of the course tend to use it to some extent initially. That useage tapers off over time.

Generally, participants have not kept in touch with ITP participants from other countries and any communication has trickled off. The ITP 258 evaluation did recommend the use of Facebook or other commonly used social platforms to replace Projectplace. Many of the ITP participants have Facebook accounts and do use them. However, KemI has no plans to abandon the development of its own information sharing and networking platform.

3.4. Impact

The impact of the helpdesk on industry has been that it is now better prepared for legislative changes. Those staff members of the Department for Chemicals who man the helpdesk state that the queries from enterprises over time have become more specific and of a more complex nature. The number of emails being received has also decreased as the industry has become more mature and aware. New questions refer to interpretation of provisions of the law and relevant sublegal acts, and not only to obtaining basic information. According to the Inspectors at the Inspection Department for Environmental Protection, also former ITP participants, the impact of the helpdesk has been very good. Combined with their own work, the helpdesk has resulted in fewer breaches of the law being observed now.

The awareness raising and dissemination of information on the online registry has prompted many companies to get registered. The engagement of the Department for Chemicals with companies over the years, through this interaction, has increased the awareness levels of companies.

3.5. Sustainability

The help desk and the online registry are two examples of where subsequent ITP participants from Serbia have built on the change management projects initiated by their colleagues during previous ITP rounds, as well as doing further outreach with industry regarding the presence of the helpdesk and how it could facilitate them. At the same time, the 2014 abolishment of the Serbian Chemicals Agency is considered as having been detrimental to the work being done on chemicals management in the country.

Engagement with mentors and experts from KemI continues, partly because of the bilateral cooperation project that KemI has with the Department for Chemicals. How-

ever, very little networking occurs with ITP participants from other countries whether through Projectplace or other means. At the same time, as the vast majority of ITP participants continue to work in the Ministry of Agriculture and Environmental Protection, networking does exist in-house. That the Ministry has been able to retain most of the ITP participants will ensure continued retention of knowledge within the institution. While it appears that political support for the reinstatement of the Chemicals Agency is absent, the progress towards accession to the European Union will ensure that chemicals management will remain on the government agenda.

3.6. Cross-cutting issues

Few if any participants were clear why Sida was funding the project. Participants recalled their visit to Sida (in the case of those rounds where such a visit was included in the itinerary), but not what was talked about there and what was Sida's mandate. The human-based rights approach is not clearly highlighted in the modules either; the link between chemicals mismanagement and its affects on the poor and marginalised are not clearly articulated. This translates into participants also giving poor attention to it when talking to or inspecting businesses and preparing informational material on chemicals management. A few participants recalled topics on gender and anticorruption to which more time was devoted.

That poor chemicals management can affect their own surroundings, community and their own families, as well as the world they and their future generations will live in could have been better emphasised. Poor health of children and family members causes extra burdens on the females of the household. Such messages could have been more strongly conveyed.

*Why does Sida fund this programme
(views of ITP participants):*

- *So that contamination of Sweden through air currents from polluting countries is reduced/prevented*
- *It is the agency with the money*
- *Because Sweden is rich and wants to*
- *Because Swedes are nice people*

4. Conclusions

In the case of Serbia, the fact that KemI has in parallel been implementing bilateral cooperation projects, which have involved continued engagement with the Department for Chemicals, has meant that support and mentoring has continued for ITP participants and their colleagues. The effectiveness of change management projects has been more pronounced because of opportunities for synergies between the projects and the work being undertaken under the bilateral cooperation. KemI's long-term engagement has partially contributed to the sustaining of the work of the former Serbian Chemicals Agency.

This programme has been very relevant for Serbia both because of the need for approximation and harmonisation of its laws with the EU, but also because of the establishment and subsequent strengthening needs of the Serbian Chemical Agency, and

its successor, the Department for Chemicals.

Overall, participants have benefited from gaining more in-depth knowledge and have more comprehensive knowledge now of chemicals management. They have expressed immense satisfaction with both the courses' content and how they were conducted. Participants have come back to make great use of what they have learnt and apply that in change management projects. The change management projects have been relevant and have yielded positive results. Participants have also learnt useful communication and project planning skills.

There is greater collaboration now between Government and industry as industry has been engaged better previously via the Agency and now the Department for Chemicals. While longer term impacts will take further time, the industry is much more informed of integrated chemical management and its responsibilities.

5. Lessons learned

More participants from universities would ensure greater sustainability as lecturers and professors year after year engage with students, graduate and postgraduate who later on become employees in industry or government. It is easier to influence minds in their formative stages, rather than when they have settled into their vocations. University lecturers and professors can incorporate what they learnt during the ITP within the curricula, thus enabling wider dissemination of chemical managements in a cost-efficient way.

KemI's database on the contact details of ITP participants and what they are currently engaged in is out-dated and inadequate. That KemI does not actively pursue longer term engagement with former ITP participants (beyond those involved in the bilateral cooperation projects) means that networking, development of critical mass of alumni, information sharing and collaboration are not optimised. It also means that KemI cannot track the longer term impact of the ITP courses and fails to demonstrate to Sida the value of investments that Sida makes.

Annex 7: Country Report Tanzania

1. Introduction to the state of chemicals management in the country

National Policies & Legal Framework

Chemicals management policy and law in Tanzania takes a sectoral approach, whereby government institutions focus on chemicals used in the sectors for which they are responsible. For example, agrochemicals are registered and managed by the Tropical Pesticides Research Institute (TPRI), food preservatives and additives by the Tanzania Food and Drug Authority (TFDA), consumer and industrial chemicals are managed by the Government Chemist Laboratory Agency (GLCA), and chemical waste and emissions from industrial sources are handled under the National Environment Management Council (NEMC).

Chemicals management is therefore addressed in a number of policies, acts and regulations, and while national policy generally addresses chemical management, Tanzania lacks a single unified policy framework on chemicals management. The most significant policies, legislation and regulations can be summarised as follows:

- *Industrial and Consumer Chemicals Management and Control Act 2003/ Industrial and Consumer Chemicals (Management and Control) Regulations 2004*: Control of production, importation, transportation, storage, handling and placing on the market of industrial or consumer chemicals.
- *National Environment Policy 1997*: Principles for an integrated approach to environmental protection, and including provisions for control of toxic chemicals from importation to end use and disposal of waste chemicals.
- *National Environmental Management Act 2004/ Environmental Management Regulations 2009*: Management of chemicals and toxic substances.
- *Occupational Health and Safety Act 2003*: General precautions in handling chemicals, provision of chemicals data sheets, labelling of hazardous chemicals.
- *Mineral Policy 2009/ Mining Act 2010/ Mining Regulations 2010*: Management of mining waste dumps and storage facilities.
- *National Health Policy 2007*: Raising awareness on chemical handling, establishing legislation and regulatory instruments to manage chemicals, enforcement structures, national information system for chemicals management.
- *Food, Drugs and Cosmetic Act 2003*: Control of imports of medical drugs, herbal drugs and poisons.
- *Tropical Pesticides Research Institute Act 1979/ Pesticides Control Regulations*: Effectiveness of pesticides and protection of users, livestock and the environment; registration of pesticides.

- *Fertilizer Act 2009*: Regulation of manufacturing, import, export, sale and use of agricultural fertilizers.

This policy and legislative structure supports and complements broader national policy, and notably the *National Strategy for Growth and Reduction of Poverty*³¹, which is a vehicle for achieving the objectives of the *Tanzania Development Vision 2025*³². These overall policies and strategies emphasise a number of elements that are of particular relevance to the ITP, including *inter alia* the need for the safe utilisation and storage of agro-chemicals, the objective of improving human resources capacity in terms of skills, knowledge and efficient deployment, and the protection of human rights and the environment and the curbing of corruption as pre-conditions for achieving growth and reduction of poverty. The *Vision 2025* also specifically states that: “fast growth will be pursued while effectively reversing current adverse trends in [...] the accumulation of hazardous substances”.

Human rights are themselves enshrined in the *Constitution of Tanzania*³³. Tanzania however faces a number of human rights concerns, including relative to environment, health, food, water and sanitation (all of which affect women and children in particular), including relative to the mining and agricultural industries, and the use or misuse of chemicals. Other rights-related challenges that also have impacts on chemical management include:

- Abuse of laws relative to demolition and eviction in hazardous areas³⁴.
- Decreased civil society space, including use of excessive force by law enforcement agencies, severe limits to the open publication of research and studies, and increased governmental surveillance of organisations³⁵, which limits the extent to which civil society organisations can engage on chemical management issues.
- Lack of capacity and resources of oversight and accountability institutions, including agencies’ enforcement mandates.

Tanzania’s *Prevention and Combating of Corruption Act*³⁶ aims to “provide for promotion and enhancement of good governance and eradication of corruption”, and is enforced in part by the *Prevention and Combating of Corruption Bureau*³⁷. However-

³¹ <http://www.mof.go.tz/mofdocs/DPE/MKUKUTA%20II%20English.pdf>

³² <http://www.mof.go.tz/mofdocs/overarch/vision2025.htm>

³³ <http://www.judiciary.go.tz/wp-content/uploads/2015/09/constitution.pdf>

³⁴ <http://www.humanrights.or.tz/userfiles/file/TANZANIA%20HUMAN%20RIGHTS%202015.pdf>

³⁵ <http://www.wfd.org/closing-civil-society-space-in-east-africa/>

³⁶ <http://www.parliament.gov.zm/sites/default/files/documents/acts/Anti%20Corruption%20Act%2C%202012.PDF>

³⁷ <http://www.pccb.go.tz/index.php/about-pccb>

er corruption is pervasive throughout the country, and is a serious problem across all sectors of the economy, with Tanzania currently ranked 116th out of 176 countries by Transparency International ³⁹.

Tanzania's human rights and corruption challenges, linked with its development status, in particular in rural and remote areas, and the significance of the mining and agricultural sectors to the Tanzanian economy, collectively present a context of enormous concern relative to chemicals management (see *Relevance* below).

Institutional Structures

In line with the sectorial approach outlined above, the ministries directly responsible for the various aspects of national chemicals management are the Ministry of Health, the Ministry of Agriculture, Food Security and Cooperatives, the Ministry of Energy and Minerals and the Ministry of Industry and Trade. In addition, the environmental division of the Vice President's Office has responsibility for chemicals management in its role of overall policy overseer. For the purpose of inter-ministerial coordination there are technical committees composed of staff from different ministries and agencies that advise the government on issues such as classification and labelling, and health and environmental aspects of certain chemical uses. There is also a Chemicals Management Advisory Committee (CMAC), established under the Environment Management Act, mandated to deal with various issues under the national chemicals management agenda. The NEMC hosts the secretariat of the CMAC.

Other stakeholders also play a role in chemicals management, including civil society and the private sector, with some companies in Tanzania having voluntarily adopted guidelines for managing empty pesticide containers.

Domestication of Multilateral Environmental Agreements

Tanzania is signatory to key international conventions that address chemicals and waste management. These include the Rotterdam, Stockholm and Basel conventions, and the Montreal Protocol. The Vice President's Office is mandated to oversee the development of all national policy relative to these agreements. The current status of ratification is as follows:

- Rotterdam Convention on the Prior Informed Consent Procedure for Certain

³⁸ <http://www.acc.gov.zm>

³⁹ <https://www.transparency.org/country/TZA>

- Hazardous Chemicals and Pesticides in International Trade: 2002.
- Stockholm Convention on Persistent Organic Pollutants: 2004.
- Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal: 1993.
- Minamata Convention: signed 2013.
- Montreal Protocol for the Protection of the Ozone Layer: 1993.
- Bamako Convention on the Ban of the Import into Africa and the Control of Trans- boundary Movement and Management of Hazardous Wastes within Africa: 1993.
- Convention Concerning Safety in the Use of Chemicals at Work (ILO Convention 170)/ Convention Concerning the Prevention of Major Industrial Accidents (ILO Convention 174): Not a party.

For the implementation of the Stockholm and Basel conventions, special provisions were inserted in the Environmental Act, whereas the implementation of Minamata convention is done through special provisions in the industrial chemicals act.

International Cooperation

Tanzania has engaged in a number of important initiatives with international cooperation partners relative to chemicals management. This has included a pilot project carried out together with United Nations Institute for Training and Research (UNITAR), which aimed to improve chemicals and waste management in the country by bringing together all relevant stakeholders, including the private sector, NGOs, community associations, government ministries, and other institutions dealing with chemicals in their daily operations, with a view to achieving the 2020 goal in Tanzania.

In addition, four projects were carried out with funding from the Quick Start Programme (QSP) of SAICM aimed at kick-starting implementation. Two government-led projects continued the work started during the pilot project, one on capacity building for management of persistent organic pollutants and one on chemical accident prevention and preparedness.

In addition to the QSP projects, the project *Capacity Building and Chemicals Management in Tanzania* (2009) was funded by KemI and focused on building capacity among chemical industry associations.

2. Evaluation methodology

A total of 8 ITP participants were met, out of which four were male and four were female (see *Annex 1: Persons interviewed*), and interviewees were sourced from GCLA, the Ministry of Agriculture, the National Environment Management Council, and the Ministry of Industry and Trade. In addition, a meeting was held with PMM Estates Ltd at the Inland Container Depot, and at the Embassy of Sweden in Dar es Salaam, which provided additional information about the ITP, chemicals management

issues and relevant sectors, and the development, political, governance and human rights context.

The Evaluators also conducted a site-visit to observe GCLA operations at the port facilities in the outskirts of Dar es Salaam, and meet with additional ITP participants and other stakeholders, including for example customs officials. This was considered particularly relevant to understanding the nature and scale of the movement of chemicals into Tanzania from throughout the world, and thereafter transported through the country and region.

The Evaluators experienced considerable difficulties in engaging interlocutors, and despite having first made contact with participants and other stakeholders more than a month prior to their country-visit, were unable to secure any meetings with participants until the afternoon of the first working day, with meetings being arranged on an *ad hoc* basis thereafter. This highly disappointing response was compounded by the fact that key agency websites are rarely accessible, in particular that of GCLA, which rendered preparation of the field visit and of the current report extremely difficult.

3. Findings

3.1. Relevance

The Programme was generally highly relevant to the policy, legislative and institutional frameworks described above, and is strongly aligned with stakeholder needs in the country, in particular in regions with a strong implication in the mining and agricultural sectors, or near transit zones or routes. The training addressed specific issues of concern raised by participants in the country reports prepared in the context of the Programme.

A number of cross-cutting issues relative to poverty reduction, environment, human rights and the fight against corruption are of particular relevance to chemicals management in Tanzania, and in the southern African region generally. However, these issues were absent from formal training content, and were only raised (if at all) on an *ad hoc* basis in the course of discussions, despite these issues being of considerable importance to participants in the Tanzanian context. A key recommendation arising from the overall Evaluation is that human rights based approaches should be explicitly developed and applied to all future training modules.

Interviewees overall reported a high degree of pertinence to their own work. However, it is observed that they were not directly consulted or involved in the development of the overall curricula or course content, nor in the profiling and selection of participants, which would have allowed for a greater degree of individual and institutional relevance.

Some specific key points raised by interlocutors included:

- The relevance and hence practical uptake of the training varied between the different agencies and indeed between individuals.
- The individual projects that were developed were of particular value to participants, since they were designed with an immediate institutional challenge or need in mind.
- Corruption, transparency and integrity were indicated as direct and highly relevant concerns relative to chemicals management, however it is observed that the Programme failed to address these issues directly, nor provided them with any tools or resources to respond to challenges in practice. This aspect should be strengthened in future training programmes.
- The direct relevance of human rights and poverty-reduction to the work of individual participants is relatively low. However, such issues can be advanced as a means of providing “meaningfulness” and commitment to agencies’ objectives, and also as a means of interlinking seemingly disparate issues, for example environment, health, child rights, vulnerable groups. Participants can also be provided with knowledge of how to use human rights issues as leverage in order to advocate for internal or policy change.
- It is considered that more focus should be given to specific emerging issues in consultation with prospective participants, and encouragement given to reaching out to a broader range of agencies and sectors.
- Stakeholders universally consider that chemicals management is a growing problem in the region, and hence it is considered that the relevance of support, including training and technical assistance, will continue to increase over time. It is therefore essential that chemicals management and related environmental, health and other issues remain prioritised.

3.2. Efficiency

The interviewees considered that, overall, the Programme was too condensed and that they would have preferred to have more hands-on exercises, to better elaborate on certain matters. Otherwise they find the structure of the Programme suitable to their needs, and the content very satisfying. The regional phase was also very appreciated, as they had the opportunity to work with colleagues from the region, which gave them a sense of “competition”. In addition, they relate more to regional issues, and hence these exchanges have more practical value to them. Although they greatly appreciated each individual module, future trainings could be more tailored to their specific needs. For instance, given the particularity of the Tanzanian mining industry (gold extraction), large volume of cyanides are transported through the country, whereas there is very little experience or capacity in terms of emergency response.

Certain institutions acknowledged a long-standing collaboration with KemI, beyond the ITPs, and it could be observed that the ITP participants, but not only, have taken

ownership of their issues, elaborated short and medium term plans and have attained milestones in developing policies, frameworks and technical capacity (training others). Within this context, the appreciation of the mentorship was highlighted and suggestions were made on improving the follow-up process, sharing or project reports or specific technical assistance in order to improve the effectiveness of the training.

Recruitment of participants aimed at having a variety of personnel at different hierarchical levels, to allow both “bottom up” and “top-down” capacity-building, and hence a diversity of impacts. The results of this were mixed, and are examined at *Effectiveness* below.

The training and the support helped the participants and their institutions to improve their technical knowledge, to better prioritise and structure their day-to-day activity, to plan strategically the future but also to support their revenue-generating activity (from the chemicals import license system).

3.3 Effectiveness

The overall objective of the ITP Programme was to create a critical mass within the participants’ institutions in order to drive organisational changes that ultimately will “*contribute to poverty reduction by promoting the sustainable use of chemicals*”. The mid-term objective was for organisational change to take place, with participants using knowledge and tools gained.

Generally, these objectives were attained for most of the participants. In the institutions having more participants in the Programme the results were impressive, both in terms of policies and systems put in place, and in ownership of the issues and strategic planning. The results are attributable not only to ITP, but also to the long standing collaboration with KemI and other similar development projects. Overall, the Programme addressed directly the institutional and individual needs and priorities.

Despite the fact that the Programme did not directly address the link between cross-cutting issues such as poverty, human rights and corruption and chemicals management, the participants from certain governmental agencies were fully aware of these links and had plans on how to embed these in a sustainable way in their future policies. However, they acknowledged the challenges and limitations in doing so. For some other participants the links were less clear, more in terms of occupational exposure, or instead referring to air or water pollution in general. The need for the Programme to directly address cross-cutting issues has been identified as a point to be strengthened, since the overall objective is to reduce poverty and improve or support human rights through chemicals management, especially in the particular regional context (see also Zambia Country Report).

The participants indicated a series of examples to illustrate their perception of the effectiveness of the Programme, as follows:

- The regional phase and country exchange was seen a very strong point of the Programme. The networking experience and interactions with neighbouring countries created a sense of “competition” but also the willingness to collaborate and share best practices. Currently, Tanzania has regional collaboration programmes with Zambia, Ghana and Uganda, and they develop similar approaches as they share the same issues and challenges.
- The training provided the opportunity to work on practical examples in a “hands on” manner, which enhanced the uptake of the knowledge, despite the course being “very condensed”. For many participants the information was not new, but it helped consolidate, structure and better understand the “*big picture*”. For other participants, everything was new, was “*a revelation, an eye-opening experience*”.
 - The study tours were considered particularly valuable, especially when these related directly to their day-to-day work. The visits to Swetox and Shell were reported as very relevant and full of learning opportunities.
 - The project management module provided tools useful not only in the design and implementation of their specific change projects, but were particularly helpful in the development of institutional objectives and in their daily work.
 - The training helped the participants to understand their role in sharing the knowledge with those involved in chemicals management through the entire value chain. Thus, the participants from GCLA organised a series of tailored training for workers and drivers of a national logistics centre; currently all workers and truck drivers handling or transporting hazardous chemicals are trained by GCLA.
 - As indicated above, a “hierarchical mix” of participants contributed to greater institutional cohesion and ownership, but this may require adjustment of some modules to ensure they are aligned with specific individual or operational needs. In certain institutions, where only mid-level participants were recruited, it was observed that management was not supportive to their projects and actions.
 - Access to international tools and resources have been of enormous value to alumni, and continue to be utilised on a daily or routine basis. Having access to the latest regulatory information on chemicals was reported as very valuable, especially in the context of limited personnel resources and capacity;
 - The information on risk assessment was mentioned as “*a point to be further elaborated*” in the future training programmes. This demonstrates that the programme created a “*momentum*” that needs to be maintained.
 - Participants acknowledged that the networks created during the training tend to diminish over time, and noted that the KemI site dedicated to facilitating the networks is itself not regularly updated. They recommended that KemI follows-up with the participants on a regular basis and share the project reports with all participants. They also suggested country focal points for the ITP in order to encourage inter-institutional collaboration, which is currently a major challenge.

- Similar to Zambia, the Tanzanian ITP alumni emphasised the need to target a broader range of representatives for future training (e.g. customs, health, labour or civil society representatives).
- The participants mentioned that during the training they learned about the collaborative relationship of the authorities with the industry in Europe and they suggested that more learning on these aspects should be embedded in future programmes, and more specifically, enforcement best practices sharing and learning about corporate responsibility (compliance being still a major issue in Tanzania).
- Participants also indicated that private sector representatives or industry organisations should also be targeted for participation, to foster cooperation, mutual understanding and partnerships between stakeholders. This could conceivably be provided on a cost-only basis, but perhaps with additional conditions imposed relative to partnership/ joint projects, to ensure that primary Programme benefits remain with or flow-over to institutional beneficiaries.
- As regards retaining the knowledge within the beneficiary institutions, the staff turnover appeared to be very low.
- In general, the agencies should be encouraged to communicate with their network fellows on their success stories. The Evaluators' finding was that at GCLA the progress has been tremendous, the planning and future strategy are clear, with attainable objectives and distinct milestones; sharing these success stories to a larger audience will create a "healthy competition" among the participants and also a sense of achievement and recognition beyond their own institution. This will also help other network fellows to shape their objectives, identify their needs and priorities and formulate solutions.

3.4. Impact

The primary and secondary effects of the ITP at the institutional level were impressive at GCLA. Beyond the knowledge of the professional individuals, the programme created a momentum for change, which was visible at institutional levels through the procedures and processes already in place, but also through the secondary results of knowledge dissemination and medium-term planning.

First, at GCLA level, a registration process of the industrial chemicals has been put in place and related to the imports and economic operator's identity. Hence, every importer needs to apply for an importing licence in order to complete custom clearance, and this process is used to register the chemicals. The importers are linked in the database with the substances or mixture that they import, and there is additional traceability through the licence number. There is a particular focus on highly hazardous chemicals used in mining/ metal extraction processes. The on-line system is undergoing testing and it will soon be available for all economic operators. The license system generates income for GCLA to a certain extent, which is used to further develop the system. The registrations completed in the last 3 years are currently scanned and introduced in the new system.

GCLA engaged in a sustained and enthusiastic training programme, targeting mainly the personnel working on the port and inland containers depots (Dar-es-Salam is the main port-of-entry in the country). Thus training became compulsory for personnel such as truck drivers or personnel handling chemicals. Efforts are made to share the knowledge at the regional level; however, Tanzania has borders with 8 different countries and the Indian Ocean, and resource constraints are an significant limiting factor.

The impact of the Programme is less relevant in domestication of the multilateral environmental agreements. However, mercury issues are acknowledged and there is long-term planning in developing policies to control the trade and use of mercury (currently, following the awareness campaigns, the authorities faced resistance from the local communities involved in mining of gold as these are focused on their immediate financial needs). It is therefore considered that future programming should engage with and support a broader base of stakeholders to increase potential for policy change, and also provide capacity-building relative to legislative processes, and possibly (outside of ITP) complementary technical legislative-drafting assistance, in co-operation with key agencies and stakeholders, including civil society.

3.3. Sustainability

The Evaluators find that the Programme has demonstrated high levels of sustainability, with flow-on effects of the benefits beyond the change projects as such, but also replicating and expanding towards other stakeholders, with synergies already being observed. The changes to policy, processes and institutional culture are also highly indicative of continued long-term benefits. These benefits have been further transmitted in an effective manner toward other stakeholders, but financial and resource constraints continue to remain the key challenges for chemicals management to reach critical mass and become a priority on the political agenda. At the GCLA level, the revenue-generating activity contributes to the sustainability of the engagement and commitment, by ensuring (limited) financial support to the activity, but also stimulating the synergies and cost-effective solution development.

While the sustainability of the broad ITP networks is questionable to a certain extent, the regional network focusing on common issues or goals appears to be sustainable, with “*healthy competition*” as a consolidating factor. Within this context, a close and regular follow-up by KemI with ITP alumni or with a designated national focal point would contribute to the sustainability of the programme.

3.5. Cross-cutting issues

As indicated in more depth above, cross-cutting issues related to gender, environment, anti-corruption and human rights are highly relevant to chemicals management issues in Tanzania and the immediate region; the importance of these issues is generally understood by participants, agencies and related stakeholders.

As also discussed above, while such issues were indeed raised in certain training components, sessions or discussion, the Programme failed to address such issues in a direct and/or systematic manner, despite this comprising a key Programme objective.

Various responses to this deficiency have also been described and recommended above, but essentially require broader stakeholder engagement and participation, in particular of civil society, and the full integration of the Sida rights-based approach into all aspects of the Programme itself (participants themselves were not aware of the existence of this approach).

It is also considered that greater efforts should be made to ensure a more balanced gender representation amongst Programme participants; broadening participation will also contribute to correcting this deficiency.

4. Conclusions/ Lessons learned

Conclusion	Lesson learned
The Programme was generally highly relevant to policy, legislative and institutional frameworks, and is strongly aligned with stakeholder needs, and addressed specific issues of concern raised by beneficiaries.	-
Cross-cutting issues, including human rights and corruption, are of particular relevance to chemicals management in Tanzania and the region.	Cross-cutting issues were absent from formal training content, and were only raised on an <i>ad hoc</i> basis.
The Programme was highly relevant to participants' work.	Participants were not consulted/involved in the development of curricula or content, or in participant selection.
Chemical management is a growing problem in the region.	Gains already achieved in national policy are at risk.

The objective of organisational change was generally attained in the agencies where more participants were recruited.	The chances of success increased in the organisations were a mix of senior and mid-level participants were recruited; inter-institutional co-operation appeared to be an issue (general observation, valid for the other countries too).
The regional phase was perceived as very valuable.	During the regional phase the exchange was more intense as the issues were common.
Fostering cooperation and mutual understanding among the stakeholders is key for progress.	Compliance is an issue, training and awareness of the industry representatives and civil society is needed, in order to increase generally the responsibility.
Inter-institutional communication is non-existent.	Difficulty of getting in contact with the participants; the participants do not keep contact with each other, no common agenda or priorities.

Annex 8 - Country Report Zambia

“Thanks to Sida and KemI for supporting us; we need it very, very much!”
- Participant, Lusaka

1. Introduction to the state of chemicals management in the country

National strategies & Legal Framework

The chemical management strategy in Zambia is not contained in a single unified document, but is to be found collectively in various policy documents and action plans across several sectors, including *inter alia* environment, development, public health, water and sanitation, national standards, customs, and the agricultural and mining industries. Nevertheless, relevant policy documents and legislation for the purposes of the Programme that was implemented by KemI include:

- The *National Policy on Environment 2007 (NPE)*⁴⁰, an objective of which is to provide “*training needed to implement a national programme of environmental protection, conservation and management*”, and also contains provisions concerning chemicals within the agricultural sector.
- The *Environmental Management Act 2011*⁴¹, which consolidates a number of laws relative to chemicals, waste management and environment impact, and imposes criminal sanctions for certain violations.

This policy and legislative structure supports and complements broader national policy, and notably *Vision 2030*⁴², the seventh national development plan, which itself emphasises the essential role of training and skills development in the furtherance of the country’s broader social, economic and regional objectives.

A key objective of *Vision 2030* is to reduce poverty to less than 20% of the population, and respect for human rights is one of seven key basic principles. Human rights are themselves enshrined in the *Constitution of Zambia 1991*⁴³, which was last

⁴⁰ http://zm.chm-cbd.net/implementation/legislation/policies-related-environment-and-biological/national-policy-environment-npe/npe_main_body_2009.doc/download/en/1/npe_main_body_2009.doc

⁴¹ <http://theredddesk.org/sites/default/files/ema.pdf>

⁴² http://theredddesk.org/sites/default/files/087_vision_2030_a_prosperous_middle-income_nation_by_2030_1.pdf

⁴³ https://www.constituteproject.org/constitution/Zambia_2009?lang=en

amended in 2016 “to include civil, political, economic, social, cultural, environmental, further and special rights [emphasis added]”⁴⁴.

However, Zambia faces a number of serious human rights concerns, including relative to environment, health, food, water and sanitation (all of which affect women and children in particular), including relative to the mining and agricultural industries, and the use or misuse of chemicals⁴⁵. Other rights-related challenges that also have indirect impacts on chemical management include:

- Decreased civil society space, which limits the extent to which NGOs can engage on chemical management issues.
- Selective application of the law, which undermines enforcement efforts, and helps feed into cycles of corruption.
- Significant repression of discussion on issues of corruption, leading to self-censorship on sensitive issues.
- Lack of capacity and resources of oversight and accountability institutions, including agencies’ enforcement mandates.

Zambia’s *Anti-Corruption Act*⁴⁶ prohibits corruption, extortion, bribery of a foreign public official, abuse of office and money laundering, and is enforced in part by the *Anti-Corruption Commission*⁴⁷. However, legislation is not considered to be adequate, and is poorly enforced, with Zambia currently ranked 87th out of 187 countries by Transparency International⁴⁸.

Zambia’s rights and corruption challenges, linked with its development status, in particular in rural and remote areas, and the significance of the mining and agricultural sectors to the Zambian economy, collectively present a context of enormous concern relative to chemicals management (see *Relevance* below).

Institutional Structures

The key agency that centralises policy development and implementation in the area of chemical management is the Zambian Environmental Management Agency (ZEMA), whose mandate, responsibilities, and powers are formalised under the EMA. ZEMA

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<http://www.parliament.gov.zm/sites/default/files/documents/bills/CONSTITUTION%20AMENDMENT%20BILL%20No.37%202016.pdf>

⁴⁵ http://lib.ohchr.org/HRBodies/UPR/Documents/Session14/ZM/JS4_UPR_ZMB_S14_2012_JointSubmission4_E.pdf

⁴⁶ <http://www.parliament.gov.zm/sites/default/files/documents/acts/Anti%20Corruption%20Act%2C%202012.PDF>

⁴⁷ <http://www.acc.gov.zm>

⁴⁸ <https://www.transparency.org/country/ZMB>

was a primary beneficiary of the ITP in the country, and actively works with all of the related sectors mentioned above, in particular the health, water, energy, mining, agriculture, and transportation sectors. Key partner institutions relative to chemical management are the Bureau of Standards, the Drug Enforcement Agency, and Customs and Border Police.

The lead Ministries responsible for chemicals management in Zambia are the Ministry of Natural Resources and Environmental Protection, Ministry of Agriculture and Livestock and the Ministry of Health, however ZEMA also works directly with the Ministries of Home Affairs, and Mines & Minerals Development. These Ministries work in close collaboration with all other stakeholders.

Domestication of Multilateral Environmental Agreements:

Zambia has signed and ratified the following relevant multilateral agreements:

- Rotterdam Convention: 1994.
- Stockholm Convention: 2006.
- Basel Convention: 2011.
- Minamata Convention: 2016.

The Globally Harmonised System for Classification and Labelling of Chemicals (GHS) project was implemented from 2010 to 2012. The project was aimed at strengthening Zambia's national capacity to implement the SAICM. Zambia is also a party to the Bamako Convention prohibiting the import of hazardous waste, as well as several ILO Conventions relative to chemicals.

Zambia has domesticated most of the provisions of the above-mentioned multilateral conventions. However, some specific provisions still need to be integrated into national law, notably relative to the Stockholm, Rotterdam and Minamata Conventions, and various draft bills are currently under review. Implementation of existing legislation is somewhat problematic. However, sincere efforts are being undertaken within the government's means, with priority given to time-sensitive obligations such as the PCB 2025 deadline. Issues relative to mercury are also given priority, given their use in the country's substantial mining sector. Agencies and Ministries therefore require considerable on-going financial and technical support in order to fully comply with their international undertakings.

Zambian agencies take pride in their commitment to regional initiatives, and work closely to ensure harmonisation and cooperation with other SADC countries on chemical management issues, with ZEMA having demonstrated significant leadership relative to implementation of international conventions. At the sub-regional level, ZEMA is involved in chemical management, for example as a founding member of the Southern Africa Pesticide Regulators Forum, and also provides technical advice to various SADC committees.

International Cooperation

Zambia's cooperation with KemI began in 2007 with the “UNDP-UNEP Case Study in Partnership with Zambia: Mainstreaming Sound Management of Chemicals Issues into MDG based National Development Planning” funded by Sida, with additional funding by Norad (Norway)⁴⁹. In addition to the training programmes under consideration, various parallel initiatives have been carried out, for example a project on the global harmonisation system of labelling⁵⁰

In addition to the collaboration with KemI and Sida, Zambia has also been supported by USAID on various chemicals-related issues, from the education of children on hazardous products⁵¹ through to training of farmers on safe use of chemicals (PROFIT+⁵²), and by Netherlands through the Zambian non-profit Nutri-Aid Trust relative to agro-chemicals.

2. Evaluation methodology

A total of 16 ITP participants were met, out of which 15 were male and one was female (see *Annex 1: Persons interviewed*), from ZEMA, the Drug Enforcement Agency and the Bureau of Standards. Given the large number of participants from ZEMA, it was decided to interview a representative sample of participants from this Agency, and given their broad dispersal throughout the country, a total of four ZEMA participants were interviewed by telephone.

In addition, meetings were held with project managers at the Embassy of Sweden in Lusaka, who provided information on the ITP, chemicals management issues and relevant sectors, and the development, political, governance and human rights context.

The Evaluator also conducted a one-day field trip to observe ZEMA operations in Chirundu, and meet with ITP participants and staff who had not been otherwise interviewed. This was considered particularly relevant to understanding the scale of the movement of chemicals into the country from southern African countries and notably South Africa, and the (often hazardous) transportation across Zambia. The Evaluator also met informally with Ministry of Health representatives, customs officials, and

⁴⁹ <http://drustage.unep.org/chemicalsandwaste/what-we-do/policy-and-governance/reports-and-publications/country-pilot-projects/zambia-partnership>

⁵⁰ <https://www.daily-mail.co.zm/need-to-harmonise-chemical-labelling/>

⁵¹ http://pdf.usaid.gov/pdf_docs/pdaci990.pdf

⁵² <https://www.usaid.gov/zambia/agriculture-and-food-security>

border police.

Interlocutors were particularly helpful in the conduct and preparation of the Country Mission, and documents are freely available online; hence no particular evaluation constraints were observed, apart from poor telephone connection rendering certain interviews somewhat cumbersome and lengthy.

3. Findings

3.1. Relevance

The Programme was generally highly relevant to the policy, legislative and institutional frameworks described above, and is strongly aligned with stakeholder needs in the country, in particular in regions with a strong implication in the mining and agricultural sectors, or near transit zones or routes. The training addressed specific issues of concern raised by participants in the country reports prepared in the context of the Programme, and notably relative to:

- Risk management.
- Disposal of containers.
- Regulation of small-scale chemical dealers.

A number of cross-cutting issues relative to poverty reduction, environment, human rights and the fight against corruption are of particular relevance to chemicals management in Zambia, and in the southern African region, generally. However, these issues were absent from formal training content, and were only raised on an *ad hoc* basis in the course of discussions, despite these issues being of enormous interest to participants in the Zambian context. A key recommendation arising from the overall Evaluation is that human rights based approaches should be explicitly developed and applied to all future training modules.

Interviewees overall reported a high degree of pertinence to their own work. However, it is observed that they were not directly consulted or involved in the development of the overall curricula or course content, nor in the profiling and selection of participants, which would have allowed for a greater degree of individual and institutional relevance.

Some specific key points raised by interlocutors included:

- The relevance of the training varied between the different agencies and indeed between individuals. For example, the modules on enforcement were highly valued by ZEMA because of their specific role as inspectors. Bureau of Standards participants reported, on the other hand, a high degree of overall relevance, since they work directly with a number of key agencies, with one participant stating “*all of the course was relevant to me*”.

- The individual projects that were developed were of particular value to participants, since they were designed with an immediate institutional challenge or need in mind.
- Corruption, transparency and integrity were indicated as direct and highly relevant concerns for ZEMA inspectors and other enforcement agencies. However, it is observed that while the Programme on certain occasions contributed to their knowledge-base, this was not provided in a systematic manner, and furthermore failed to provide them with any tools or resources to respond to challenges in practice. This aspect should be strengthened in future training programmes.
- The direct relevance of human rights and poverty-reduction to the work of individual participants is relatively low. Such issues can, however, be advanced as a means of providing “meaningfulness” and commitment to agencies’ objectives, and also as a means of interlinking seemingly disparate issues, for example environment, health, child rights, vulnerable groups. Participants can also be provided with knowledge of how to use human rights issues as leverage in order to advocate for internal or policy change.
- It is considered that more focus should be given to emerging issues, for example within the energy sector and the growing challenges of disposing of batteries, and encouragement given to reach out to a broad range of agencies and sectors, for example energy/ fuels, etc.
- Stakeholders (including Swedish Embassy experts) are of the view that chemical management is a growing problem in the region, and hence it is considered that the relevance of support, including training and technical assistance, will continue to increase over time. In Zambia, in particular, with the decline in metals prices and thus in revenue in recent years, there is a risk of the considerable gains made being lost if chemicals management and related environmental, health and other issues do not remain prioritised.
- In terms of current needs and priorities, interviewees referred to the following themes that could form the basis of future support and approaches by Sida/KemI:
 - Capacity-building in critical areas, such as the registration of chemicals, and including stakeholders in the regions.
 - Management of empty pesticide containers.
 - Need for a computerised database, linking key agencies.
 - Need for support in the domestication process of international conventions, and related implementation and awareness-raising of the key issues.

3.2. Efficiency

Participants overall considered that the structure of programmes was appropriate, although there was some disagreement as to whether the proportion of time spent in Sweden/ regional countries was appropriate, with some participants wanting more hands-on time in Sweden, and others preferring regional exchanges, and yet others

requesting tailored technical assistance with European experts working directly within agencies. This aspect can be clarified in future training by establishing the specific needs of institutions, and tailoring courses appropriately.

It is observed that structured mentoring and tracking of participants' progress were particularly appreciated as being complementary to the more theoretical knowledge-based training, since it allowed participants to have real-time advice on improving processes and practices. It is considered that intensifying these forms of technical assistance from KemI, perhaps in the form of *in situ* embedding in key institutions, would result in greater effectiveness, cost-effectiveness – and a lower environmental impact.

Recruitment of participants aimed at having a variety of personnel at different hierarchical levels, to allow both “bottom up” and “top-down” capacity-building, and hence a diversity of impacts. The results of this were mixed, and are examined under *Effectiveness* below.

The greatest benefits in terms of efficiency are to be seen in the results of the programmes, since the training and support helped agencies vastly increase their own efficiency and cost-effectiveness, and also strongly supported their revenue-raising activities (see also *Effectiveness* below). This was particularly important for ZEMA, since their staffing levels are relatively low, with only 35 inspectors to cover the entire nation, and with an exceptionally broad mandate. As one interviewee stated “*KemI only does chemicals, whereas we have to do everything*”.

3.3. *Effectiveness*

The overall objective of the Programme was for participants to “*obtain further insight into the relation between chemicals management in the supply-and-use chain, economic growth and improved human health and environmental quality*”. The programme was to “*suit participants' needs and contribute to poverty reduction by promoting the sustainable use of chemicals*”. The mid-term objective was for organisational change to take place, with participants using knowledge and tools gained.

The Evaluator's overall finding is that these objectives were largely attained, and indeed the Programme in Zambia and its very impressive results are being used as an example of best practice by KemI, and could equally also be shared with other donors, partners, civil society and the private sector both nationally, regionally and internationally.

These overall results are, however, not purely attributable to the Programme *per se*, but also by the very high level of ownership displayed by beneficiary agencies, in particular ZEMA, who clearly and rapidly understood that the assistance provided would allow them to more effectively and efficiently achieve their own objectives, and leveraged the individual project component of the Programme to implement spe-

cific changes. This is directly linked to the elements of relevance described above, in that the Programme responded directly to practical and institutional priorities, needs and constraints.

As also indicated above, however, a key weakness has been the Programme's failure to directly or routinely address cross-cutting aspects. This despite this being a key objective of the intervention, despite the obligation of KemI as a Sida beneficiary to apply a rights-based approach, and despite the clear need for cross-cutting issues to be taken into account in chemicals management policy and implementation in the Zambian and regional contexts, as outlined at *Relevance* above.

Participants raised a number of specific and important points relative to the Programme's effectiveness, which can be summarised as follows:

- Participants highly valued the practical aspects of the Programme, which “*allowed me to align [what I learnt] with what I am doing, and gave a bigger picture of what I'm supposed to do*”. An example given was that training on identification of chemicals provided stronger insight into the safety-chain and other risk issues, thereby allowing participants to see the interdependence of their work with the mandates of other agencies. The practical emphasis also allowed a more rapid uptake of knowledge, with participants reporting having had certain “*immediate results*”, for example the Bureau of Standards project, which aimed to develop an appropriate procedure regarding waste disposal, which was previously non-existent.
- Country exchanges, and also site visits to other facilities in both Sweden and the region (including to companies), were considered particularly valuable, and exchanges in general gave participants exposure to different working environments, and other work practices, for example relative to record management. It also developed a “healthy competition”, both between agencies and countries, with participants in Zambia, for example, describing their Tanzanian and South African counterparts' facilities and practices as “*inspiring*”.
- The project management modules provided tools, skills and best practices that were particularly useful not only in the design and implementation of participants' specific projects, but also helped enormously in the development of institutional objectives and in their daily work, and in the formulation and implementation of projects with other cooperation partners.
- As indicated above, a “hierarchical mix” of participants contributed to greater institutional cohesion and ownership, but this may require adjustment of some modules to ensure they are aligned with specific individual or operational needs.
- Awareness-raising of and access to international tools and resources have been of enormous value to alumni, and continue to be utilised on a daily or routine basis. Related to this, risk assessment modules were considered particularly relevant and useful, with the Risk Assessment Toolbox providing “*immediate and first-hand information*”; access to real-time, accurate infor-

mation is of vital importance in Zambia, where inspectors are under-resourced, and thinly scattered throughout the regions.

- The risk assessment component *per se*, however, was generally considered to have been insufficient, and it is recommended that additional time be devoted to this complex and vital aspect of beneficiaries' work. Ecotoxicology was also identified as a critical field that could also benefit from additional training. This highlights a general need for on-going training for certain alumni or identified specialists, so that critical but complex issues can be addressed in the detail they clearly require.
- The short-term results of networking platforms were significant, since it allowed participants to develop the relationships they had developed at the national, regional and international level (since the Swedish trips included participants from several continents, in itself an important element of effectiveness), and which represented an informal practice/"troubleshooting" exchange, and also served to reinforce the "specialisation" that training provided to many participants. Nevertheless, participants of earlier Programmes reported that the usefulness of these networks has tended to diminish over time, and noted that the KemI site dedicated to facilitating the networks is itself not regularly updated.
- Related to this, participants also noted general difficulties with information dissemination, and sharing the benefits of the Programme. To help counter these challenges, the Programme should specifically train and support a corps of "resource persons" or "ambassadors", charged with being focal/contact points on chemical management information, policy and implementation; ensuring inter-agency coordination; and maintaining the vitality and relevance of networks. This would help encourage motivation, accountability, ownership and professionalization, and facilitate access to cutting-edge practices and information.
- Related to the above, while agencies in Zambia are currently drawing up a Memorandum of Understanding on issues of chemical management, inter-agency coordination remains a major challenge, and coordination processes/tools could themselves be highlighted and further developed in training content.
- Whilst in Zambia several agencies were targeted for training, it is considered, in addition to the recommendation for broader engagement at *Relevance* above, that recruitment itself should be extended to a larger range of agencies and target groups, to include for example representatives from customs and law enforcement, health, labour, mining and agriculture, energy and related sectors, and also including civil society representatives to provide the political and local leverage and accountability that is clearly needed relative to chemicals management in the country. Civil society participation would also provide linkages between "technical" chemicals management, and broader cross-cutting aspects. While civil society did not directly benefit from the Programme, it is noted however that limited training was provided on engaging

- with civil society, however this is clearly not adequate to ensure the approaches and insight that non-governmental organisations and others could provide.
- Participants also indicated that private sector representatives or industry organisations should also be targeted for participation, to foster cooperation, mutual understanding and partnerships between stakeholders. This could conceivably be provided on a cost-only basis, but perhaps with additional conditions imposed relative to partnership/ joint projects, to ensure that primary Programme benefits remain with or flow-over to institutional beneficiaries.
 - Relatively low staff turnover in beneficiary institutions meant that erosion of training results has not been of concern to date, although one beneficiary left the public sector within three months of receiving training, and directly applied the knowledge and skills acquired in the development of his own chemicals supply and management company. This risk should therefore be more proactively addressed, including through greater conditionality, perhaps through individual contractual engagements of participants or institutions (for example reimbursement of training costs by agencies in the event of transfers, or by individuals who enter the private sector).
 - Monitoring and evaluation of the uptake and results/ impact of the Programme by participating agencies has been variable, however the tracking by ZEMA has been exemplary, with extensive data compiled and analysed to demonstrate institutional, technical and operational change over time, including both quantitative and qualitative results relative to regulatory compliance, enforcement, and revenue generation. Apart from general observations concerning KemI's own M&E performance, it is considered that beneficiary agencies can and should also contribute to this process, which in any event allows them to track their own "success stories" or identify priorities, gaps and weaknesses, and formulate how to address them.

3.4. Impact

The Evaluator was strongly impressed by the level of positive primary and secondary effects of the Programme at the institutional level, with participants and stakeholders reporting significant and long-term indicators of change, including *inter alia* internal policies, procedures, degree of outreach and engagement, technical and operational capacities, and income generation.

The secondary impacts on other stakeholders have also been exceptional, with for example ZEMA engaging in sustained and enthusiastic cooperation, coordination, capacity-building and awareness-raising with other agencies, members of civil society, educators, medical personnel, and vulnerable groups (for example children, women, subsistence farmers etc.). In addition, the increase in efficiencies are remarkable, with levels of ownership and cooperation by other stakeholders very high, with a regional inspector stating "*now they are doing the job on our behalf, they are calling us!*" One participant noted that, while the Agency has an existing mandate to undertake these activities, "*the training was a catalyst to their implementation*".

Less impact attributable to the Programme has been observed relative to national and institutional policy and priorities, and legislative alignment with international conventions. Whilst this was not stated as a key objective of the Programme, such change is a logical imperative for the full benefits of training to be realised. It is therefore considered that future programming should, as indicated above, engage with and support a broader base of stakeholders to increase potential entry-points for policy change, and also provide capacity-building relative to advocacy and legislative processes, and possibly (outside of ITP) complementary technical legislative-drafting assistance, in cooperation the Ministry of Justice and key agencies and stakeholders, including civil society.

Other key impacts as described by participants or observed by the Evaluators included:

- Internal priorities and procedures within agencies have been substantially reviewed and improved, which in turn has substantially increased beneficiaries' efficiency and overall effectiveness, including in areas of their mandate that are outside of chemical management.
- The Project component increased partnership opportunities, through increased credibility, and providing skills to develop proposals and manage projects. ZEMA for example has leveraged this to obtain financing from other cooperation partners, and has been providing training on chemicals management with numerous other agencies throughout Zambia.
- The Programme has highlighted the importance of specialisation, which has for example resulted in significant internal review and restructuring of ZEMA. In this regard, many Participants also have been inspired to pursue specialisation through further education, for example a number of alumni have since completed a two-year post-graduate course in South Africa that they learned of through the training.
- Participants report significant shifts in mentalities and mind-sets, which has followed through in key approaches and processes, by establishing for example a greater emphasis on self-regulation thereby freeing-up valuable resources, or a greater appreciation of the need for cooperation. As one participant stated: *"This is not a regulatory issue, it is a issue of [institutional] culture"*.
- Significant impacts have been observed in emergency responses, with trained stakeholders now able to accurately identify problems using chemical datasheets.
- Other significant impacts are also reported relative to the agricultural, health and environmental sectors, and at all stages in the importation, distribution and transportation of chemicals, by working directly with relevant Ministries and research institutes, and with direct target groups, such as freight drivers, farmers, etc.
- Some beneficiaries, however, have reported significant resource constraints that impede their ability to effect the changes the Programme has enabled them to achieve. This underscores the importance of acquiring advocacy skills

(for example to achieve increased/realistic budget allocation), the support of civil society, and the leveraging of rights and development issues to ensure chemicals management remains a national priority.

- Beneficiaries have adopted a “pilot project” approach to change, primarily as a result of the project component, with ZEMA having already evaluated the results of training and cooperative initiatives at borders in the south, and now preparing to roll them out at other strategic border-crossings in the country.
- The networks (while experiencing limits as described above) and other regional exchanges have provided significant vectors of change, and are already resulting in the absorption and direct replication of key approaches, procedures and activities in other countries (Zimbabwe, Namibia, etc.). Joint efforts, operations and training have also been implemented with neighbouring countries.
- Several initiatives are being developed to conduct training within key industries and suppliers; see also comments regarding the private sector under *Effectiveness* above).

3.5. Sustainability

The Programme has demonstrated very high levels of sustainability, with benefits not only still resonating some years beyond training cycles, but also replicating and expanding to other stakeholders, regions and countries (*see above*), with considerable synergies already being observed. The changes to policy, processes and institutional culture are also highly indicative of continued long-term benefits.

The benefits of training in particular have demonstrated strong sustainability, and have been further transmitted in a strategic, efficient and effective manner. Budgetary constraints in some agencies will continue to hamper sustainability, hence the need for more intensive support to policy issues, to ensure the visibility of chemical management on the national agenda.

The benefits of the Programme to revenue generation provide not only strong financial sustainability, but also powerful incentives to continue institutional efficiency and reform. Whilst outside the scope of the current Programme Evaluation, agencies urgently require support for automated processes, and the development of inter-agency databases. These would not only increase efficiency, but also consolidate and improve processes, and hence efficiency and effectiveness. Importantly, they are an essential tool for ensuring compliance, enforcement, and agency accountability, for monitoring results, and for fighting against corruption.

The sustainability of the networks and platforms established under the Programme however is somewhat questionable; this issue is addressed at *Effectiveness* above. It is also considered that the benefits of training could also be enhanced and leveraged through specific Training of Trainers, particularly given the manifested interest (and mandate) of beneficiary agencies to provide on-going training to stakeholders.

3.6. Cross-cutting issues

As indicated in more depth above, cross-cutting issues related to gender, environment, anti-corruption and human rights are highly relevant to chemicals management issues in Zambia and the immediate region; the importance of these issues is well-understood by participants, agencies and related stakeholders.

As also discussed above, while such issues were indeed raised in certain training components, sessions or discussion, the Programme failed to address such issues in a direct and/or systematic manner, despite this comprising a key Programme objective.

Various responses to this deficiency have also been described and recommended above, but essentially require broader stakeholder engagement and participation, in particular of civil society, and the full integration of the Sida rights-based approach into all aspects of the Programme itself (participants themselves were not aware of the existence of this approach).

It is also considered that greater efforts should be made to ensure a more balanced gender representation amongst Programme participants; broadening participation will also contribute to correcting this deficiency. Beneficiaries, however, demonstrated that genuine efforts have been made to ensure balanced gender representation in their own training, and ZEMA has developed their own training module on human rights and pesticides, yet another key example of agencies building on the benefits of the Programme – and going far beyond the intended results.

Indeed, interviewees are clearly proud of the concerted efforts their own agencies have made in general to ensure gender balance, and also demonstrated their understanding of the relevance of human rights and corruption to their agencies' work. Such obvious interest, openness and awareness represent a significant opportunity to explore these issues in more depth in subsequent Programmes.

4. Conclusions/ Lessons learned/ Recommendations

Conclusion	Lesson learned
The Programme was generally highly relevant to policy, legislative and institutional frameworks, and is strongly aligned with stakeholder needs, and addressed specific issues of concern raised by beneficiaries.	-
Cross-cutting issues, including human rights and corruption, are of particular relevance to chemicals management in Zambia and the region.	Cross-cutting issues were absent from formal training content, and were only raised on an <i>ad hoc</i> basis.

The Programme was highly relevant to participants' work.	Participants were not consulted/involved in the development of curricula or content, or in participant selection.
Chemical management is a growing problem in the region.	Gains already achieved in national policy are at risk.
The structure of programmes was generally appropriate, and mentoring activities were particularly appreciated, but participants vary concerning the structure of exchange components.	A one-size-fits-all approach is not always appropriate. Increased on-site technical assistance would result in greater effectiveness.
Participant selection aimed to ensure representation at different agency levels, but this was not always effective.	It is essential to respond to differing levels of participant expertise.
The Programmes helped increase beneficiaries' own efficiency and cost-effectiveness.	-
The Programmes objectives were largely attained.	-
Practical aspects of the Programme were highly valued and contributed significantly to its effectiveness.	-
Country exchanges were considered particularly valuable.	-
Project management modules provided tools, skills and practices that were particularly useful in participants' work, the development of institutional objectives, and the development of projects with other partners.	-
Access to international tools and resources continue to be enormously useful to alumni.	-
Participants consider that they need greater specialisation.	-
Networking has allowed participants to facilitate professional relationships.	The usefulness of networks tends to diminish over time, and difficulties exist with information dissemination and sharing Programme benefits.
-	Inter-agency coordination is a major challenge.
The Programme targeted a limited number of agencies.	Participation of a number of stakeholders would help address cer-

	tain difficulties relative to chemicals management.
There is relatively low staff turnover in beneficiary institutions.	Staff turnover risks eroding training results.
Monitoring and evaluation of the results/ impact of the Programme by participating agencies has been variable.	Increased M&E allows beneficiaries to identify and analyse their successes, priorities, gaps and weaknesses.
The positive primary and secondary effects of the Programme are highly impressive, however impacts relative to policy, priorities, and domestication of international conventions were difficult to discern. Resource constraints also hamper beneficiaries' ability to produce lasting impacts.	Strong policy and priorities relative to chemical management, and alignment of national legislation with international standards is essential to assure the Programme's impacts.
The Programme has demonstrated very high levels of sustainability, with activities and approaches being replicated with other stakeholders, regions and countries.	-



Evaluation of ITP 299 – Strategies for Chemicals Management

The main purpose of the evaluation of this International Training Programme was to identify results, collect lessons learned and provide recommendations for future design and implementation of ITPs in chemicals management. Eighty-two ITP participants from ten countries were interviewed; drawing from both ITP 299 and its predecessor ITP 258. The evaluation found both ITPs to be efficiently executed and highly effective. The ITP objectives have been relevant and in line with the policies of the governments and international conventions regarding chemicals management. Participants were immensely satisfied with the courses. They applied knowledge and skills gained in change management projects that have generally yielded positive results in the span of time allocated to them. The evaluation recommended, amongst other things, KemI making more explicit links between chemicals management and human rights, specialised modules, tracking outcomes and fostering greater networking and knowledge sharing amongst ITP alumni.

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