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United Nations Institute for Training and Research

Preparing a National Profile to Assess Infrastructure and Capacity Needs for Chemicals Management

Second Edition
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Guidance Document

Knowledge to lead

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IOMC
INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS
A cooperative agreement among FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD

About this Document

This guidance document has been developed to assist countries in preparing National Profiles to Assess Infrastructure and Capacity Needs for Chemicals Management, through a process which involves all interested parties at the country level. While the suggested approach is comprehensive, the document has been designed to provide flexibility to countries. National Profiles should be prepared in accordance with country priorities and be consistent with available information and resources, and often a less comprehensive approach is adequate. In particular, the tables contained in Part C of this document should be considered illustrative and should be adapted to meet national needs and circumstances.

A National Profile:

- can become an official national reference document, providing a clear picture of the national legal, institutional, administrative, and technical infrastructure for national chemicals management;
- may assist in the identification of infrastructure-related strengths, weaknesses, and gaps, as well as priority needs for national action and external technical assistance; and
- could provide a nationally-recognised information base against which progress may be judged in meeting specific national or international targets.

To remain valuable, the National Profile should be reviewed periodically to determine when updating is needed. Updating the National Profile could be undertaken in a comprehensive manner (i.e. the entire National Profile), or by updating specific chapters only, e.g. as a result of particular national or international developments. The use for which the National Profile is intended will determine how often updating is warranted; for most purposes updating every few years would be appropriate. This guidance document is also intended to be useful as countries update or revise their National Profiles for specific purposes.

The Inter-Organisation Programme for the Sound Management of Chemicals (IOMC) was established in 1995 following recommendations made by the 1992 UN Conference on Environment and Development to strengthen co-operation and increase international co-ordination in the field of chemical safety. The Participating Organisations are FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD. The purpose of the IOMC is to promote co-ordination of the policies and activities pursued by the Participating Organisations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

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Glossary

CSD	Commission for Sustainable Development
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GPA	Global Plan of Action (of SAICM)
ICCM	International Conference on Chemicals Management
IFCS	Intergovernmental Forum on Chemical Safety
IHR	International Health Regulations
ILO	International Labour Office
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
IPCS	International Programme on Chemical Safety, a Programme of the World Health Organization
IPEN	International POPs Elimination Network
ISO	International Organization for Standardization
MDGs	Millennium Development Goals
MEA	Multilateral Environmental Agreement
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
OPS	Overarching Policy Strategy (of SAICM)
POPs	Persistent Organic Pollutants
PRTR	Pollutant and Release Transfer Register
QSP	Quick Start Programme (of SAICM)
QSPTF	Quick Start Programme Trust Fund (of SAICM)
SAICM	Strategic Approach to International Chemicals Management
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization
WTO	World Trade Organization
WSSD	World Summit on Sustainable Development

Part A: Introduction

1. Context and Overview

Chemicals encompass substances of man-made and natural origin and are increasingly used in the agricultural, industrial, and consumer sectors of all societies. While indispensable in many economic activities, there is increasing evidence to suggest that chemicals can contribute to health and environmental problems at various stages during their life cycle from production/import through disposal, as well as resulting from unintended occurrence. Such problems include pollution generated during production processes; improper handling; storage and transport accidents; occupational accidents and diseases; and environmental contamination due to unsound disposal methods.

While in the developing world much evidence of such problems is often associated with the use, and misuse, of pesticides in the agricultural sector, increasingly, industrial and consumer chemicals are reported to cause severe health and environmental problems as countries develop from agricultural to industrial societies. Furthermore in many countries, chemicals of natural origin may also give rise to adverse health impacts in a variety of segments of society.

It is now widely recognised that chemicals need to be managed properly in order to achieve a sustainable level of agricultural and industrial development and a high level of environmental and human health protection. One important step in strengthening national systems for the management of chemicals is the preparation of a National Profile, which involves: (i) a comprehensive assessment of the national infrastructure and capacity related to the legal, institutional, administrative, and technical aspects of chemicals management, along with the nature and extent of chemicals availability and use throughout their life cycle in the country; (ii) an analysis of existing capacities, gaps, and needs; and (iii) initial priority setting and outlining associated proposals for action. This could be followed by preparation of a SAICM Implementation Plan.[1]

The National Profile provides a recognised country information reference base that can be used to judge progress in meeting specific national or international targets, in implementing the Strategic Approach to International Chemical Management (SAICM, Dubai 2006), as well as the World Summit on Sustainable Development (WSSD) (Johannesburg 2002) goal of sound management of chemicals by 2020 and United Nations 2015 Millennium Development Goals (MDGs) as they relate to achieving environmental sustainability.

This guidance document, initially issued in 1996 and revised as a second edition in 2012, has been developed to assist countries in preparing such National Profiles. It is intended to assist countries that still need to prepare National Profiles and those that will update or revise their National Profiles for specific purposes and to respond to emerging issues, ensuring that there is a sound information base available in the country for decision making in relation to chemicals management. To remain valuable, the National Profile should be

[1] See *Guidance for Developing SAICM Implementation Plans* developed by UNITAR and the SAICM Secretariat in cooperation with IOMC organizations, http://www.who.int/iomc/publications/publications/en/index.html.

reviewed periodically to determine when updating is needed. Updating the National Profile could be undertaken in a comprehensive manner (i.e. the entire National Profile), or by updating specific chapters only, e.g. as a result of particular national or international developments. The use for which the National Profile is intended will determine how often updating is warranted; for most purposes updating every few years would be appropriate.

This second edition takes into account developments that have taken place since 1996 and lessons learned in countries as they have developed National Profiles; more comprehensively covers the entire life cycle of chemicals management; and integrates the most effective parts of the 2007 IOMC National SAICM Capacity Assessment methodology into this revised National Profile guidance.

It has been prepared by UNITAR under the umbrella of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), a cooperative agreement of FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, OECD, and the World Bank.[2]

Part A of this guidance document provides an updated introduction to National Profile development including international and national policy frameworks for the sound management of chemicals and introduces possible objectives and benefits of preparing a National Profile. It emphasises the need to ensure close coordination among concerned ministries and other stakeholders towards achieving the sound management of chemicals.

Part B provides suggestions for organising the preparation of a National Profile at the national level. A key element of this preparation is the involvement of a broad range of concerned parties, both within and outside of government at all levels within a country. Such involvement helps to ensure that the National Profile can become an official national reference document which is endorsed by all concerned parties.

Part C provides a guide for the structure and content of a National Profile. A series of tables, descriptive sections, and questions are provided to assist in: documenting and analysing the existing national infrastructure and capacity, including its strengths and weaknesses; identifying improvements that may need to be made; and undertaking initial priority setting and outlining associated proposals for action.

2. Background on the International Policy Framework

Agenda 21 and Chemical Safety

Many of the international efforts to address chemicals since 1992 have occurred as a result of the “Rio Conference”—more formally known as the United Nations Conference on Environment and Development (UNCED). Heads of State or Governments from more than 150 member countries of the United Nations adopted *Agenda 21*, a comprehensive document outlining responsibilities of States towards the achievement of sustainable development. Chapter 19 of

[2] www.iomc.info

Agenda 21[3] is entitled "Environmentally Sound Management of Toxic Chemicals, Including Prevention of Illegal International Traffic in Toxic and Dangerous Products", and provides an international strategy for achieving the sound management of chemicals through their life cycle, a goal to which all countries present at the Rio Conference agreed. A review of that agreement held at the 2002 World Summit on Sustainable Development (WSSD) produced a number of important new commitments (see below).

Chapter 19 addresses chemicals issues in six programme areas: international assessment of chemical risks; harmonisation of chemical classification and labelling; information exchange on chemicals and chemical risks; risk reduction; strengthening national capacities and capabilities for chemicals management; and prevention of illegal international trade in toxic and dangerous products. "Programme Area E on Strengthening of National Capabilities and Capacities for Management of Chemicals" is of particular relevance to countries that are in the process of establishing or improving their national systems for chemicals management. In addition, related to Chapter 19 are Chapter 20 entitled "Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes" and Chapter 21 entitled "Environmentally sound management of solid wastes and sewage-related issues", which are concerned with certain aspects of the chemicals management.

Intergovernmental Forum on Chemical Safety (IFCS)

In 1994, the IFCS was established as a means for countries to regularly discuss their activities and priorities for the sound management of chemicals, including progress made in implementing Chapter 19 of Agenda 21. It comprised representatives of countries around the world as well as representatives of intergovernmental and nongovernmental organisations who met approximately every three years. Through these meetings and within its regional groupings, the participants in the Forum discussed important aspects of chemicals management and safety and developed recommendations which served as a driving force for work at the international level and within countries. The last Forum (VI) was held in Dakar, Senegal, in 2008.

World Summit on Sustainable Development (WSSD)

The World Summit on Sustainable Development (WSSD), held in 2002 in Johannesburg, South Africa, adopted a Plan of Implementation[4] and political declaration (The Johannesburg Declaration on Sustainable Development) to build upon the accomplishments since UNCED and implement activities so as to achieve targets for sustainable development, as set out in Agenda 21. A number of important new commitments related to chemicals and waste management were also agreed, including to:

- renew commitment, as advanced in Agenda 21, to sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development as well as for the protection of human health and the environment, inter alia, aiming to achieve, by 2020, that chemicals are used

[3] http://www.un.org/esa/sustdev/documents/agenda21/index.htm
[4] http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf

and produced in ways that lead to the minimisation of significant adverse effects on human health and the environment;

- promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste;
- further develop a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action beyond 2000 of the IFCS;
- encourage partnerships to promote activities aimed at enhancing environmentally sound management of chemicals and hazardous wastes;
- and for Africa in particular: achieve sound management of chemicals, with particular focus on hazardous chemicals and wastes, inter alia, through initiatives to assist African countries in elaborating national chemical profiles, and regional and national frameworks and strategies for chemical management and establishing chemical focal points.

Strategic Approach to International Chemicals Management (SAICM)

The Strategic Approach to International Chemicals Management (SAICM)[5] is a policy framework adopted by the International Conference on Chemicals Management (ICCM) at its first session in Dubai, United Arab Emirates, on 6 February 2006 to promote chemical safety around the world. It comprises the Dubai Declaration – expressing high-level political commitment to SAICM – and an Overarching Policy Strategy (OPS) which sets out its scope, needs, objectives, financial considerations, underlying principles and approaches, and implementation and review arrangements. The Declaration and OPS, both adopted by the ICCM, are accompanied by a Global Plan of Action (GPA) that serves as a working tool and guidance document to support implementation of SAICM and other relevant instruments and initiatives. Activities in the GPA – currently a total of 273 – are to be implemented, as appropriate, by stakeholders, according to their applicability.

At the heart of its policy framework, SAICM guides efforts to achieve the Johannesburg Plan of Implementation goal that, by 2020, chemicals will be produced and used in ways that minimise significant adverse impacts on the environment and human health. Participants at the first session of the ICCM in 2006 declared their firm commitment to the Strategic Approach and its implementation, and pledged to work in partnership with all stakeholders to achieve chemical safety, and in so doing to assist in fighting poverty, protecting vulnerable groups, and advancing public health and human security.

United Nations Millennium Development Goals (MDGs)

Achieving the United Nations MDGs – as they relate to achieving environmental sustainability – would call for the reduction in exposure to toxic chemicals and the improvement in frameworks for chemicals management. The preparation of a National Profile could serve as a useful tool in this context by providing a comprehensive picture of the national infrastructure and capacity in which chemicals-related international agreements would be implemented.

[5] http://www.saicm.org/

Policy Instruments

Since the late 1980s, several international policy instruments have been adopted which address specific aspects of chemicals management. These instruments include, for example:

- UNEP London Guidelines for the Exchange of Information on Chemicals in International Trade (as amended in 1989)
- FAO International Code of Conduct on the Distribution and Use of Pesticides (as revised in 2002)
- ILO Convention (No. 170) Concerning Safety in the Use of Chemicals at Work (1990)
- ILO Convention (No. 174) Concerning the Prevention of Major Industrial Accidents (1993)
- Vienna Convention and the Montreal Protocol on Substances that Deplete the Ozone Layer. (signed 1985 and entered into force on 22 September 1988)
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (signed 1989 and entered into force on 5 May 1992)
- Paris Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and Their Destruction – Chemical Weapons Convention (signed 1993 and entered into force on 29 April 1997)
- Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (signed 1998 and entered into force on 24 February 2004)
- Stockholm Convention on Persistent Organic Pollutants (POPs) (signed 2001 and entered into force on 17 May 2004)
- Globally Harmonized System of Classification and Labeling of Chemicals (GHS) (adopted in December 2002 and endorsed by ECOSOC in July 2003), which is a voluntary agreement rather than a multilateral convention

Furthermore, other Multilateral Environmental Agreements (MEAs) relevant to the sound management of chemicals have been adopted by the General Assembly of the United Nations, as well as by various regional bodies; for example, the UNECE Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, adopted on 25 June 1998. The Convention links environmental rights and human rights. Additionally, there are Protocols to existing Conventions, such as that to the Basel Convention, on Liability and Compensation, adopted in December 1999, which established rules on liability and compensation for damages caused by accidental spills of hazardous waste during export, import, or during disposal.

Also relevant to chemicals management are the revised International Health Regulations (IHR) (2005), which entered into force on 15 June 2007. This legally-binding agreement significantly contributes to global public health security by providing a framework for the coordination of the management of events that may constitute a public health emergency of international concern, including events related to chemical releases. The IHR (2005) is aimed at

improving the capacity of all countries to detect, assess, notify, and respond to public health threats.

3. Establishment/Strengthening of National Programmes for the Sound Management of Chemicals

Developing an integrated and coordinated approach to national chemicals management is one of the key messages of SAICM. Paragraph 16(b) of the OPS notes as one of the objectives to "promote the sound management of chemicals within each relevant sector and integrated programmes for sound chemicals management across all sectors". The GPA includes "Implementation of integrated national programmes for the sound management of chemicals at the national level in a flexible manner" as one of its work areas. Under that work area, activity 166 of the GPA in particular suggests:

> "With regard to the implementation of national programmes: develop comprehensive national profiles; formalise inter-ministerial and multi-stakeholder coordinating mechanisms on chemicals management issues, including coordination of national Government and multi-stakeholder positions in international meetings; develop national chemical safety policies outlining strategic goals and milestones towards reaching the Johannesburg Summit 2020 goal; develop national chemicals safety information exchange systems; develop national strategies to mobilise national and external resources and to raise the importance placed on chemicals management within national sustainable development frameworks; develop policies of systematic stakeholder involvement, bringing synergies from related initiatives on chemicals management."

An *integrated* approach to sound chemicals management and SAICM implementation therefore requires efforts to strengthen coordination, ensuring that contributions are complementary across relevant actors with respect to the various activities undertaken. Under an integrated scheme, in the national context for example, ministries of agriculture, environment, health, industry, labour, science and technology, trade, and transport, customs authorities, and others, continue to carry out their own sectoral mandates, but their efforts are coordinated to a reasonable degree to avoid conflicting policies, gaps, and unnecessary overlaps. An integrated approach also means involving ministries of finance, foreign affairs, justice or legal affairs, planning, etc. with a view to integrating chemicals management into development planning ("main-streaming"). From the perspective of the regulated community and others outside government, such coordination would also appear as a more streamlined and rationalised system.

Approaching chemicals management from a holistic perspective additionally helps to promote that potential risks to health and environment at the various stages of the life-cycle are taken into account and that appropriate measures are put into place to manage and reduce those risks. This approach also helps expose issues or elements within a given stage of the life-cycle that may have "fallen through the cracks" under existing schemes within individual ministries or agencies. For many countries, the challenge of establishing a coherent, integrated chemicals management framework that coexists with broader national

development policies and effectively addresses local needs is still very much a "work in progress".

Strengthening sound chemicals management through an integrated approach also provides an important opportunity to streamline national efforts regarding international agreements. For example, coordination of the national focal points of international agreements and related activities could facilitate common national requirements under such agreements, which may include: information exchange and dissemination, risk assessment, risk management decision-making, education and training programmes, chemicals analysis and monitoring, and import and export control.

An integrated approach to chemicals management within the SAICM framework can provide a great variety of benefits from streamlining administrative procedures to contributing towards a healthier society. Some of those benefits, at the national level, include:

- administrative benefits such as minimising overlaps and inconsistencies in policies and programmes across agencies and programmes;
- communications-related benefits, including improved information exchange within and among relevant parties, and increased awareness for the general public;
- ensuring that chemicals management occurs at all stages of the life cycle—so that chemicals-related problems are not merely shifted from one medium to another, thereby increasing protection of human health and the environment; and
- contributing to chemical safety and thereby assisting in fighting poverty, protecting vulnerable groups and human rights, and advancing public health and human security.

4. Principles for Preparing a National Profile

In accordance with the spirit of Agenda 21, SAICM, and the Johannesburg Plan of Implementation, the following general principles could guide countries when preparing a National Profile. A National Profile should:

- be prepared at the country level through a process which involves all concerned ministries and other government institutions, as well as other interested parties within the country ("by countries for countries");
- provide a basic understanding of chemicals (of human or natural origin) produced, imported, exported, used, handled, and/or disposed of and recycled in the country, the specific uses of such chemicals, and the populations and environmental resources that are potentially affected by such chemicals; where appropriate it should reflect the different situations in different regions within a country and provide a baseline against which progress in implementing the sound management of chemicals and waste can be subsequently judged;
- document the existing national infrastructure both for general aspects of chemicals management (e.g. information on existing legislation, ministerial

responsibilities, coordinating mechanisms) and for specific aspects of chemical management (e.g. pesticide registration, occupational health, transport of dangerous substances, chemical emergency response);

- provide practical information on on-going and planned activities at the country level (e.g. activities related to the implementation of international agreements, technical assistance projects);
- initiate a process by which a country will be able to identify strengths and gaps in the existing legal, institutional, administrative, and technical infrastructure related to chemicals management and safety, and set initial priorities and outline "next steps" based on this;
- provide indicators that may be used locally for assessing progress and success in improving infrastructure;
- provide a means for improved coordination among all interested governmental and nongovernmental organisations at all levels within a country. The process of preparing the Profile itself may serve as a starting point for improved coordination and should facilitate communications and an improved understanding of the potential problems and activities being undertaken within the country;
- provide a means for sharing information among parties inside and outside government and provide a means for bridging any communication problems between policy makers and technical staff;
- provide a basis for cost-effective allocation of resources by including information on the resources available for the management of chemicals, including financial resources and human skills/capabilities, as well as an indication of resources needed for undertaking priority actions; and
- be a "living" document, useful to many different parties on a regular basis. It should be developed using a flexible, iterative process appropriate to national needs and adapted to available information and resources. It should be periodically reviewed, and updated as appropriate, to remain an authoritative national document.

5. Objectives and Potential Benefits of a National Profile

A National Profile, and the process of its preparation with input from all concerned parties, can serve important national objectives to strengthen the national chemicals management systems as well as to facilitate important national economic and trade objectives. Specifically, the National Profile can serve the following objectives:

- to catalyse a process of collaboration between government and stakeholders towards understanding and identifying priority needs for SAICM implementation;
- to facilitate identification of action in government and within stakeholder groups which collectively contribute to SAICM implementation;
- to identify selected areas where partnership projects between government and stakeholder groups, or between various stakeholder groups, may be feasible; and

- to set the stage for preparation of a SAICM Implementation Plan which is linked to, as appropriate, an integrated national programme for sound chemicals management.

Other objectives of the National Profile may include the following.

Improved Efficiency of Governmental Operations

- to provide practical information on ongoing programmes and activities in the country which are concerned with the management of chemicals throughout their life cycle;
- to establish a process which can facilitate the exchange of information and dialogue among government ministries and authorities at national, regional, and local levels, concerned with the sound management of chemicals, and to assist ministries other authorities in learning from each others' experience as a basis for improved cooperation;
- to strengthen priority setting and national decision-making capabilities related to the management of chemicals throughout their life cycle;
- to facilitate the exchange of information and dialogue between government and parties outside of government such as industry, labour, academia, and civil society organisations; and
- to establish an authoritative document which can serve as a basis for further efforts to strengthen the national system for the management of chemicals throughout their life cycle through involvement of all concerned parties.

Social Benefits

- to provide a basis for improved worker, public, and environmental protection as a consequence of improved knowledge and understanding of potential problems and alternative means for addressing them;
- to provide a basis for improved awareness of chemical risks among workers and the public and help to develop a national safety culture; and
- to establish a national dialogue on chemicals safety/management involving all concerned parties and sectors of society.

Economic/Trade Benefits

- to facilitate trade in chemicals, and agricultural, domestic, and industrial products which rely on chemicals;
- to help ensure that chemicals produced, imported, and exported are supporting economic goals and are not creating economic burdens through health, environmental, and safety problems;
- to improve awareness of potential pesticide and other chemical residue problems which could limit opportunities for agricultural exports; and
- to indirectly improve the productivity of workers through improved worker safety.

More Effective Participation in International Activities

- to provide core information and an evidence base for the development of situation analyses and priority setting for actions required to implement MEAs such as the Basel, Rotterdam and Stockholm Conventions, Montreal Protocol, and other international efforts such as the Globally Harmonised System of Classification and Labelling of chemicals and the International Health Regulations with regard to chemical events;
- to ease compliance with international/regional reporting schemes in a consistent and efficient manner, e.g. reporting to the Commission on Sustainable Development and the preparation of background documents for international meetings and workshops;
- to facilitate communication among countries, which will permit improved learning from others' experiences and lead to increased cooperation (e.g. on a regional basis); and
- to provide a basis for identifying needs and priorities for technical and financial assistance, and for mobilising assistance resources available from international and bilateral sources.

This listing is not meant to be exhaustive but should provide a starting point to determine possible national objectives and benefits of a National Profile for a particular country. Countries will likely come up with additional objectives and benefits based on their national priorities.

Definition of the term "chemical" as used in this document

For purposes of this document, the term "chemical" is used in a broad sense to include: pesticides, fertilizers, and other agricultural chemicals; chemicals used in industrial processes; petroleum products; chemicals marketed for consumer use; pharmaceuticals; cosmetics; food additives; chemicals of natural inorganic and biological origin; as well as unintended chemicals, such as produced in combustion processes and those appearing as residues in food, biota, and consumer goods, etc.

Chemicals used in the informal economic sectors in many developing countries, while often having a significant impact on health and the environment, are difficult to identify, quantify, and manage.

In a life cycle approach, chemicals that are discarded after use or arise as unwanted by-products from various processes may become wastes that need to be managed in an environmentally sound manner, either recycled or ultimately disposed. Further, treatment of wastes may give rise to other chemicals that need to be managed in order to protect health and the environment.

In preparing a National Profile, countries will need to decide which classes of chemicals should be covered and which should be exempted. In this regard, it should be noted that food additives, cosmetics, pharmaceuticals, and other chemicals that are intended for direct human application or consumption are generally regulated in very different ways than other chemicals, as are radioactive substances.

Countries should define the terms to be used in their National Profile including, for example, "pesticides", "industrial chemicals", "consumer chemicals", "nanotechnology and manufactured nanomaterials", "production", various types of "waste", and the other relevant terms. Additionally, each country should define key terms used in the tables and in the descriptive material in a manner consistent with relevant laws and policies. In this regard it is suggested that each Profile contain a glossary defining key terms to facilitate communication and understanding among all interested parties. Possible definitions of some chemicals terms and other related terms are provided in "Annex 1 to the National Profile: Glossary".

PART B: Suggested Process for Developing / Updating a National Profile

This part of the guidance document provides a suggested process for developing or updating a National Profile.

Obtain Political Commitment to Prepare / Update the National Profile

In order to ensure that the full range of concerned parties participate in the preparation or updating of the National Profile, and to facilitate access to necessary information, it is important to obtain political commitment to the process from the highest levels of government. It should have the full support of the key ministries and agencies of government involved in the various aspects of chemicals management.

Hold a National Planning Meeting

Holding a planning meeting early on would allow government and stakeholder groups to agree on the process and determine how input will be coordinated towards preparing or updating the National Profile. By the end of the meeting agreement should be reached on:

- the objectives and anticipated benefits of preparing the National Profile;
- the identification of parties which should be represented on a National Coordinating Team and the identification of the National Coordinator;
- the role and functions of the National Coordinating Team and of individual members of the Team (Identifying an institution or individual that has the confidence of all involved could help to ensure that the preparation of a first draft is a fair reflection of the views of various bodies and groups contributing to the process. The development and approval of clear terms of reference for the work is also be important);
- how the information for the National Profile will be compiled (see Part C for the suggested methodology) and the need for, and establishment of, working parties responsible for developing parts of the National Profile;
- the scope of the National Profile (e.g. agricultural chemicals (pesticides and fertilizers); pesticides used for public health, industrial and consumer uses; chemicals used in industrial processes, including small and medium sized enterprises; petrochemicals, including refined petroleum products; and chemicals in consumer products such as cleaning materials, paints, and solvents);[6]

[6] It is recognised, however, that while some countries produce or import very limited quantities of chemicals used in industrial processes, others have a very broad spectrum of industries, for which the National Profile would be more meaningful with a more detailed breakdown of chemical groups or industrial sectors. Countries may wish to consider whether to also include human and veterinary pharmaceuticals, narcotics, food additives, and cosmetics, recognising that products intended for direct human consumption or application are generally controlled in a different manner than other chemicals. Other chemicals that may also be considered for inclusion are, for example, dual purpose chemicals (chemical weapon precursors) and radioactive chemicals; as well as natural

- a work plan for preparation of the National Profile; and
- a time frame for completion of the National Profile.

Participants of the National Planning Meeting should include high-level representatives of all interested national, regional, and local ministries/agencies, universities and research institutes, industrial and professional organisations, labour organisations, and environmental, consumer, and other interested community-based groups. In particular, the representatives of the various national ministries should be officials with sufficient authority to ensure the required input of their agencies in preparing the National Profile. In addition, representatives of international and bilateral technical cooperation agencies and organisations which have interests and programmes related to the sound management of chemicals and which are present in the country should be invited.

As a starting point for preparing/updating the National Profile, becoming familiar with SAICM, and taking stock of the main stakeholders and their roles and responsibilities, many countries have found it useful during the National Planning Meeting to prepare a table identifying the key actors associated with the "work areas" listed in Table A of the SAICM Global Plan of Action (see Annex 4).

Establish a Network of Contact Points and Gather Relevant Information

Gathering data and information to prepare or update the National Profile will require access to a range of governmental and other organisations, agencies, and offices at the local, regional, national, and international levels. Many of these may be represented on the National Coordinating Team, while others may not. It is often helpful to invite all relevant organisations that have access to the information required to nominate a contact point that can assist in the information-gathering process and ensure adequate cooperation and participation of their respective organisations.

Recognising that ministry officials often have time consuming multi-functions, a country may wish to designate a local consultant or groups of consultants to undertake, under the direction of the National Coordinator, the main information gathering as a full or part time task. Clear terms of reference should be established for such consultants. Some countries have also found it useful to create a simple Internet-based information data management system or website as a tool to enable rapid and reliable transfer of information among members of working groups and data gatherers.

Develop Drafts of the National Profile and Hold Interim Meetings to Discuss Progress

It may be useful to divide the preparation or updating of the National Profile by sections and delegate the work to specific organisations (for example, according to areas of expertise and interest), or through establishing working groups responsible for specific sections. First suggestions for this will have emerged at the National Planning Meeting. It may also be helpful to establish a small

toxins (snake, scorpion, fish, and plant toxins) which may have important health impacts in some countries.

drafting group, responsible for pulling together all the information into a first draft for review by the National Coordinating Team and for making necessary revisions.

Interim meetings should be organised once drafts of the various sections of the National Profile are available. Such meetings could be used to consider progress, review the drafts, fill in gaps, and address any differences of opinion. The interim meetings should also start discussing the "Assessment" sections of the relevant chapters, as the process of agreeing on a common analysis may take some time. Interim drafts of the National Profile could also be circulated to all stakeholders for review.

Hold a Final National Profile Review Meeting, Set Priorities, and Agree on "Next Steps"

The penultimate draft of the National Profile should be circulated for review to all stakeholders prior to the Final National Profile Review/Priority Setting Meeting, and should be sufficiently advanced to enable approval at this meeting with only minor adjustments to be made. In particular, the "Assessment" sections of the various chapters should be thoroughly developed, reflect the input of the various stakeholders, and enable national priority setting for chemicals management.

The meeting should serve to finalise and approve the National Profile as an official national reference document (including the recorded analysis of existing chemicals management capacities, gaps, and needs) and outline initial priorities and associated proposals for action (including concerned actors). The National Profile should be readable by a wide range of audiences, including national and, if desired, international audiences. At the same time, it should contain sufficient detail to be of use by decision-makers and sectoral specialists to strengthen national chemicals management. As an integral component of the National Profile which highlights main results of the National Profile and includes a critical assessment, the meeting participants may also want to consider publishing the Executive Summary as a separate document in order to reach all those who may not want to read through the full National Profile.

The meeting should also discuss possible activities, such as publication and establishment of a mechanism for widespread distribution of the National Profile, and a separate Executive Summary as appropriate; and means for periodic review and updating of the National Profile. It should be clear how often the National Profile will be reviewed to enhance its value to all potential users. The review process should allow for additions to the Profile in areas which might not have been fully addressed in the past, as well as for updating of information which may have changed over time. It should be recognised that certain parts of the National Profile can be regularly updated, including some of the national background information (e.g. concerning trade and production statistics), whereas other parts will only require updating after some triggering event such as the adoption of new legislation or regulations. Each country should decide on the best method, and appropriate timing for the periodic review, taking into account the value of maintaining the National Profile as an accurate picture of the existing situation in the country.

Regarding "next steps", the exercise of preparing or updating the National Profile should have promoted a participatory, interagency, and cross-sectoral assessment of the current national chemicals management situation. During this process, an analysis of existing capacities, gaps, and needs will typically have been undertaken, along with initial priority setting and outlining of associated proposals for action. In particular, the "Assessment" sections of Chapters 2-12 and the recommendations and conclusions presented in Chapter 13 provide an excellent basis for a priority-setting process and planning appropriate action.[7]
Defining the priorities to be addressed through centralised and decentralised activities which contribute to the sound management of chemicals can serve as a key component of the planning process for an integrated national programme and SAICM implementation. (Where relevant, this is also an important step to providing input to developing a national SAICM implementation plan.) Broad participation among all interested and affected parties is crucial to the priority setting process. Those involved should be of sufficiently high authority to effectively engage in priority-setting and decision-making and be a catalyst for action within their respective organisations. It's important to note that it may not be necessary to develop new priorities for action or new areas of work: a reiteration and renewed commitment to ongoing work may often be a pragmatic way forward. In fact, a failure to take into account ongoing work during the priority setting process may diminish the interest and commitment of those who are involved in existing projects.

The input of the various parties participating in the process will also aid in identifying areas of priority concern. A priority setting process could generate: a list of national chemicals management priority issues to be addressed; an approved membership list of key ministries and stakeholders; and a work plan and time frame for planning (e.g. developing a national SAICM implementation plan[8]) and implementation.

Publish / Distribute National Profile

Publishing the National Profile (if necessary, following a formal transmission and approval process at the top government level) should take place soon after the Final National Profile Review/Priority Setting Meeting and should be distributed to all relevant governmental organisations at all levels and nongovernmental organisations. It may be useful to also make the document available on a national website as well as internationally-available on the National Profile Homepage[9].

[7] A *priority* is something which is given prior (or superior) attention; to *prioritise* is to arrange in order of importance. A priority in the present context is considered to be a topic/area in which the level of interest (e.g. due to its importance/urgency) and level of support (e.g. organisations and people willing to commit their time and resources) are sufficiently high that a decision is usually taken to initiate action. It is important to recognise that priorities exist at different levels: within ministries, within stakeholder groups, national priorities related to foreign affairs, and priorities related to national development planning.
[8] See *Guidance for Developing SAICM Implementation Plans* developed by UNITAR and the SAICM Secretariat in cooperation with IOMC organizations.
[9] http://www.unitar.org/cwm/nphomepage

Sample Work Plan for the National Profile Development/Updating Process

Activities	Months									
	1	2	3	4	5	6	7	8	9	10
Obtain political commitment to developing/ updating the National Profile										
Organise national planning meeting										
Hire consultant(s), where appropriate										
Establish a network of contact points and gather information										
Develop drafts of National Profile and hold regular working group meetings										
Disseminate first full draft of National Profile to relevant stakeholders										
Hold final National Profile review/priority setting meeting, and agree on next steps										
Publish and distribute final National Profile										

PART C: Suggested Structure and Contents of a National Profile

This part of the guidance document outlines a suggested structure and contents for a National Profile. For countries that are using this second edition guidance document to assist in the updating of an existing National Profile, it should be noted that some modification has been made to the suggested structure and contents in order to reflect changes that have occurred since the first edition of the guidance document and to take into account developments that have taken place since the first (1996) edition and lessons learned in countries as they have developed National Profiles. This second edition also more comprehensively covers the entire life cycle of chemicals management, and includes the most effective parts of the 2007 IOMC National SAICM Capacity Assessment methodology. Additions have been made to certain chapters, particularly to reflect infrastructure requirements in relation to the more recent MEAs, and to fill gaps not adequately covered in the first version of the document, such as infrastructure related to chemical emergencies.

Part C of this guidance document recommends a combination of tables and text to present the relevant information. In addition, questions are put forward to assist the National Coordinating Team to diagnose the existing national infrastructure and capacity for the sound management of chemicals, including its strengths and weaknesses; identify and prioritise areas where strengthening or new capacity may be required; and outline associated proposals for action. It is suggested that this exercise is undertaken with the WSSD “2020 goal” in mind, along with SAICM.

The tables and questions provided should be adapted to meet the needs of each country. It is recognised that no country will be able to complete all the tables or answer all the questions set out below; the objective is to collect and, to the extent appropriate, analyse all relevant, *existing* information. In fact, the lack of certain information in itself will provide important insights for developing follow-up activities.

Countries should also determine the best way for collecting information. For example, some countries may decide that it would be easier to collect information by sector (for agricultural chemicals, industrial chemicals, domestic products, etc.). Others may decide to divide responsibilities for information collection by chapter of the Profile. Whatever approach is taken, it is important to integrate the collected information during the drafting and finalisation process into a coherent document and as far as it is feasible to use harmonised, comparable units.

Recommended Table of Contents of the National Profile

It is suggested that the National Profile contains, in addition to an introductory section and an executive summary, 13 distinct chapters and a series of annexes, as appropriate. The following table of contents represents the recommended structure of the National Profile.[10]

[10] For countries that are using this second edition guidance document to assist in the updating of an existing National Profile that was based on the first edition guidance document, it may be helpful to note some of the significant changes to the guidance: Chapters 2-12 conclude with an analysis of existing capacities, gaps and needs, initial priority setting, and outlining associated proposals for action; Chapter 2 has been expanded to also address storage, transportation, and disposal; A new chapter (9) has been added on emergency preparedness, response, and follow-up; and a new final chapter (13) can be used to present conclusions and recommendations of the National Profile.

Introduction to the National Profile

Purpose of the Introduction

To provide an introduction to the international and national policy context in which the National Profile was prepared and to indicate the purpose of the National Profile, as well as the organisations which contributed towards its preparation

Linkage of the National Profile to the International Policy Framework for the Sound Management of Chemicals

This section could provide a brief introduction to the international policy framework for the sound management of chemicals. For example, it may include reference to relevant recommendations of Chapter 19 of Agenda 21, MEAs which the country has signed, and other international initiatives such as the WSSD 2020 goal, the United Nations MDGs, and recommendations emanating from SAICM and ICCM. It may also introduce the UNITAR/IOMC National Profile Programme, where support may have been given. The preparation of this section can be based on information provided in Part A of this second edition guidance document.

National Objectives and Anticipated Benefits of Preparing the National Profile

This section could outline the major reasons for and anticipated benefits of preparing the National Profile. Specific reference could also be provided to the potential contribution of the National Profile to the overall efforts to improve the management of chemicals at the national, regional, and local level, including the rural situation as appropriate. Information provided in this section will reflect a summary of the deliberations of the National Profile Planning Meeting. In addition, information provided in Part A, section 5, of this second edition guidance document may be useful for drafting the introductory section of the National Profile.

This section could also refer to the country's broader development goals and link chemicals management to them, including, for instance, provision of safe drinking water, control of water pollution, poverty alleviation and income generation, as well as possible indirect economic impacts or driving forces for change in relation to chemicals risk assessment and management.

How was the National Profile Prepared

This section could provide a short description of the national process which led to the preparation of the National Profile. It could, for example, refer to:

- institutional structures used or established for preparing the National Profile, e.g. the establishment of a National Profile Coordinating Team and its

membership, creation of working groups, use of local experts to support the drafting of sections of the National Profile;

- important meetings that took place; and
- other important steps which took place in the process of developing the National Profile, etc.

Participation of Ministries, Organisations, and Other Stakeholders

All partners which were involved in and contributed to the preparation of the National Profile should be listed, including:

- the National Coordinator (including name, title, organisation, address, phone, fax, email); and
- all ministries, government agencies, and other institutions, as well as organisations outside of government, including names and titles of relevant staff or, as appropriate, the offices responsible for various tasks (their complete addresses should be provided in an Annex).

Executive Summary of the National Profile

Purpose of the Executive Summary

To summarise main findings and conclusions of the National Profile, thereby serving as a key to identify priority concerns as well as opportunities to strengthen national programmes to achieve the sound management of chemicals

A well-structured and well-written *Executive Summary* of the National Profile could become a key to the success of the National Profile to raise awareness among decision–makers and to trigger concrete follow-up action towards strengthening the national scheme for the sound management of chemicals.

The *Executive Summary* should highlight and be consistent with the main points and observations documented throughout the different chapters of the National Profile, in particular those mentioned in the "Assessment" sections of Chapters 2-12 and conclusions and recommendations provided in Chapter 13. It should summarise the main findings regarding existing capacities, gaps and needs, initial priorities identified, and associated proposals for action.

The *Executive Summary* should be brief (e.g. 5 pages), in order to be able to obtain the attention of key decision-makers. In this regard it may be appropriate to also publish the *Executive Summary* as a separate document to allow the widest possible dissemination to all key decision-makers and a broader public. At the same time, it could serve the purpose of informing other countries about the national chemicals management situation, as well as potential donors concerning the national priorities for capacity building in relation to chemicals management.

Possible Structure of the Executive Summary

The *Executive Summary* could follow the table of contents of the National Profile and provide a summary analysis of each chapter including the key aspects of national chemicals management; strengths, gaps, and needs; and a related list of initial priorities and proposal for action.

Chapter 1: National Background Information

Purpose of Chapter 1

To provide general background information on the country both at the national and at the regional levels

Chapter 1 could provide general background information on the country. While some of this information is only indirectly relevant to the management of chemicals, it is important to the understanding of the overall geographic, demographic, political, and socio-cultural context, as well as the industrial, agricultural, and other economic activity characteristics of the country.

1.1 Geographic Context

- Location, size of the country (area in km2), and map:
- Climate:
- Terrain:
- Elevation extremes:
- Natural hazards:

1.2 Demographic Context

- Total population:
- Age structure:
- Median age:
- Birth rate:
- Life expectancy:
- Important changes in population migration, including immigration and refugees:
- Urban population (% plus definition of urban):
- Rural population (% plus definition of rural):
- Language(s) (official and local):
- Literacy rate:
- School life expectancy (primary to tertiary education):
- Population of working age (e.g. 15-65):
- Unemployment rate:
- Percentage of women employed outside the home:

1.3 Political Structure of the Country

This section could provide an introduction to the political structure of the country. It could refer to:

- Form of government;
- Number of administrative divisions (e.g. regions, provinces, states, municipalities);
- Description of local government entities, e.g. states, provinces, departments;
- Division of responsibilities between national, regional, and local governments in the area of health and environmental control as well as land-use for economic development; and
- Location of various ethnic groups, as appropriate.

A map of the country which indicates major administrative divisions (e.g. provinces, states) could also be included. Socio-cultural aspects which might influence the choice of chemicals management options in the country could also be explained in this section.

1.4 Industrial, Agricultural, and Other Key Economic Sectors

This section could provide general information about the main economic sectors of the country, particularly agricultural and industrial activities, where problems of chemicals management may be faced. The following tables are intended to summarise relevant information in a structured manner and should be expanded and modified as required. A text section could be added to indicate other economic sectors that may be important in the country, including the informal sector, and that may have a bearing on options for chemicals management (e.g. tourism and construction).

The purpose of Tables 1.A and 1.B is to provide a summary of the relative importance of the main economic sectors in the country including, inter alia: the manufacturing and industrial sector; agriculture, forestry and fishing sector; and mining and extraction sector). To the extent appropriate, separate tables could be prepared for each major region.

The purpose of Tables 1.C and 1.D is to elaborate on the information contained in Tables 1.A and 1.B in order to provide an understanding of which regions in the country are most likely to face potential problems related to hazardous chemicals.

Table 1.A: Overview of National Economic Sectors

Economic Sectors	Number of Employees	Number of Facilities	Major Products in Each Sector	Contribu-tion to GDP (%)	Output Value (USD)	Growth Rate (%) [1]
Manufacturing/ Industry Sector [2]						
Mining and Extraction Sector [3]						
Agriculture, Forestry and Fishing Sector						
Total						

1 Enter timeframe, e.g. over past five years.
2 This would include all manufacturing, production, formulation, assembly, and related facilities.
3 This would include offshore exploration and exploitation of minerals, petroleum, and gas.

Table 1.B: Structure of the Major Economic Sectors by Size (According to the Number of Employees)

Economic Sectors	Micro Farms/ Facilities [1] (%)	Small Farms/ Facilities [2] (%)	Medium Farms/ Facilities[3] (%)	Big Farms/ Facilities [4] (%)
Manufacturing/ Industry Sector				
Mining and Extraction Sector				
Agriculture, Forestry and Fishing Sector				
Total				

1 1 to 15 employees
2 16 to 100 employees
3 101 to 250 employees
4 More than 251 employees

Table 1.C: Breakdown of Agricultural Production by Region

(If appropriate prepare a table for each region and expand the table as necessary.)

Region	Major Crops [1]	Total Value of Crop, etc.	Total Number of Employees	Size of Productive Areas (# hectares)
Total				

1 Including animal husbandry, fishing, and forestry.

Table 1.D: Breakdown of Industrial Production and Mining (including Offshore) by Region

(If appropriate prepare a table for each region and expand as necessary.)

Region	Major Products or Minerals Mined	Total Value of Production	Total Number of Employees	Number of Industrial/ Mining Facilities
Total				

1.5 Releases of Concern by Major Economic Sectors

This section provides a detailed overview of the releases of concern in the country related to specific economic sectors referred to in section 1.4 above. The purpose of Table 1.E is to identify the major emissions by type, and may be adapted for specific types of releases such as POPs. Countries may also wish to consider adding additional columns, such as major human exposure pathways of concern; major health concerns; and major environmental concerns.

Table 1.E Releases by Type and Media for Major Economic Sectors

ISIC Rev.4 [1]	Economic Sectors and Related Activities	Major Pollution Emissions by Chemical Type	Media to which Emissions are Released: Air, Water, Soil	Wastes Emitted as: Solids, Liquids or Gases by Volume or Weight if known
Sector of Agriculture, Forestry and Fishing				
A 01	Crop and animal production, hunting and related service activities			
A 02	Forestry and logging			
A 03	Fishing and aquaculture			
Sector of Mining and Extraction				
B 04-09	Coal/oil/natural gas/minerals/metals			
Sector of Manufacturing / Industry				
C 10	Food products			
C 11	Beverages			
C 12	Tobacco products			
C 13-15	Textiles/wearing apparel/leather			
C 16	Wood and of products of wood and cork			
C 17	Paper and paper products			
C 18	Printing and recorded media			
C 19-22	Coke, refined petroleum products, chemicals, pharmaceutical products, plastic products			
C 23	Non-metallic mineral products			
C 24-25	Basic metals and fabricated metal products			
C 26	Computer, electronic, and optical products			
C 27	Electrical equipment			
C 28-30	Machinery and equipment, motor-vehicles, other transport equipment			
C 30-33	Others			
Sector of Services				
D	Electricity, gas, steam and air conditioning supply			
E	Water supply, sewerage, waste management			
F	Construction			
G	Wholesale and retail trade, repair of vehicles and motorcycles			
H	Transportation and storage			
I	Accommodation and food services activities			
S	Others service activities (dry cleaning)			
Total				

1 ISIC: International Standard Industrial Classification of all Economic Activities, UN Statistics Division. http://unstats.un.org/unsd/cr/registry/isic-4.asp. Each country may use this table as most appropriate for them. Sectors may be pulled out or expanded as necessary.

1.6 Assessment

This section could provide comments on geographic and demographic aspects which may influence chemicals management options, such as:

- major regional climatic variations (tropical to tundra, hot or cold, humid or dry);
- geographical variations that may affect land-use; and
- problems related to population migration and immigration, including refugees, which may put a heavy burden on already stretched local resources affecting chemicals management.

Other relevant questions may include: Is there a regional concentration of chemicals related problems? Are problems different in different regions? In case some regions are more affected than others, what are the reasons?

Regarding political aspects, comments could be provided on how the political structure of the country may influence jurisdictional aspects of chemicals management. For example, local authorities often have responsibilities for implementing pollution control and waste disposal. Concerning socio-cultural aspects, in some cases, ethnic and cultural variations in a country may influence the options for chemicals risk communication and management.

Comments and analysis will also likely be valuable with respect to specific economic sectors in the country or in a particular region where chemicals may be important. For example, recent trends in the growth, decline, or practices of certain sectors related to the chemical life cycle may be worthy of analysis. Although quantification of the informal economic sector is usually difficult, this sector is often uncontrolled and highly polluting, and may also be important to address in this section.

Chapter 2: Chemical Production, Import, Export, Storage, Transport, Use, and Disposal

Purpose of Chapter 2

To provide basic information about the existence of chemicals, through production and import, as well as concerning the storage, transport, use, export, and disposal of chemicals and handling of chemical waste in the country

Where there are official definitions of terms referred to, such as banned chemicals, obsolete chemicals, contaminated facilities, hazardous materials, or toxic materials, they should be explained and the definitions included in the glossary. As far as is feasible, data on chemicals should use harmonised, defined units, preferably metric (metric tons or kilograms for weight and cubic metres for volume) and be defined in the glossary

2.1 Background

A background section may be added to describe past issues related to chemicals production, import, export, storage, transport, use, and disposal which might have current relevance or influenced past policies which are still applied. For example, there may have been past production or import of currently banned chemicals (e.g. POPs pesticides) or abandoned activities involving chemicals, such as minerals mining or cottage industries, where contaminated facilities, sites, or stockpiles of obsolete chemicals remain. There may have been issues of transportation of hazardous materials which required special regulations, such as in some countries where transport of highly toxic or dangerous materials requires a security convoy.

2.2 Chemical Production, Import, and Export

This section deals with the issues concerning domestic production of chemicals and chemical products, as well as the import and export of chemicals and products. The purpose of Table 2.A is to get an understanding of the extent, and nature, of chemical production and trade in the country. The first column of each table should be adapted to be consistent with decisions made concerning the scope of the National Profile, as well as with the definitions of terms in the glossary. It should be clear whether the tables include individual chemicals only or whether they also address formulations and preparations. Major chemical groups (e.g. total pesticides, petroleum products, other industrial products, and household goods/consumer chemicals) may be adequate for an overview of issues, and the local national statistical groupings of chemicals or the appropriate top level of the ISIC Rev.4 (with some modification) may be used. For highly industrialised countries it may be necessary to include a broader range of industrial chemicals, such as bulk drugs, dyes and dye intermediates,

inks, paints, chlor-alkali, and soda ash. As appropriate, offshore production could be included. Where the National Profile needs to deal with more specific issues, *e.g.* chemicals restricted under international conventions or chemicals with specific properties (e.g. manufactured nanomaterials), additional tables could be prepared to reflect individual or specific groupings of chemicals.

Information on chemicals might be collected, for example, through product registers (e.g. for pesticides), chemical inventories, and lists of licenses for production facilities and/or importers. In case this information is not available, estimates can be used but these should be clearly indicated as such.

Where raw materials (e.g. minerals, coal, petroleum, and gas) are major chemical issues, Table 2.B could be completed, giving an explanation of the issues involved. It may be also useful to prepare separate tables for major regions in the country.

Table 2.A: Chemical Production, Import, and Export

(Adapt rows according to the local data collection and add rows where necessary, e.g. using and adapting ISIC Rev.4. Also prepare separate tables for specific regions if appropriate. For each chemical type, reference can also be made to the relevant MEAs and international chemicals and wastes initiatives.)

Chemical Type	Production / Manufacturing (tons/year & value)	Imports [1] (tons/year & value)	Formulation / Packaging [2] (tons/year & value)	Exports [2] (tons/year & value)
Pesticides (agricultural, public health, & consumer use)				
Fertilizers				
Petroleum Products				
Industrial (used in manufacturing / processing facilities)				
Consumer Chemicals				
Other Chemicals (unknown / mixed use)				
Total				

1 If available, the primary sources (exporting countries) of these chemicals should be listed.
2 These quantities will overlap with the quantities indicated for production and import. There should be some clarification of the relationship among the information in the four columns.

Table 2.B: Raw Materials for Chemicals and Related Industries

Raw Materials	Imports (tons or volume/year)	Extracted locally (tons or volume/year)	Exports (tons or volume/year)

2.3 Chemical Use by Categories

This section deals with issues concerning use of chemicals and chemical products. The purpose of Table 2.C is to get an understanding of the extent and nature of chemical use in the country. The first column of the table should be adapted to be consistent with decisions made concerning the scope of the National Profile, as well as with the definitions of terms in the glossary. It should be clear whether the table includes individual chemicals only or whether they also address formulations and preparations. For some countries it may be useful to include use of natural chemical products.

Table 2.C: Chemical Use by Categories

(The table may be expanded for other types of chemicals, groups of chemicals, or individual chemicals as appropriate, e.g. pesticides used in industry; a breakdown by certain industrial sectors; consumer chemicals; natural products. Additionally, in some countries it may be valuable to include a regional breakdown of chemical use. For each chemical type, reference can also be made to the relevant MEAs and international chemicals and wastes initiatives.)

Chemical Type	Number of Tons Used per Year in the Country
Pesticides - Agricultural	
Pesticides - Public Health	
Pesticides - Consumer Use	
Fertilizers	
Petroleum Products	
Industrial Chemicals (used in manufacturing/processing facilities)	
Consumer Chemicals	
Other Chemicals (unknown/mixed use)	
Total	

2.4 Storage of Chemicals and Related Issues

This section deals with issues concerned with the safe storage and handling of chemicals, particularly with respect to bulk storage. In some cases, chemicals may be imported into one country for transit to another country, for which there may be special storage facilities either at the port or place of entry or at specific warehouse areas. In addition, certain chemicals destined for further transformation or later domestic use may be warehoused in bulk.

The purpose of Table 2.D is to get an understanding of the extent and nature of chemical storage facilities in the country, particularly for bulk materials. This section is not meant to cover storage facilities at individual enterprises or small scale use of chemicals, such as at laboratories where storage facilities will be part of the installation. The first column of the table should be adapted to be consistent with decisions made concerning the scope of the National Profile, as well as with the definitions of terms in the glossary.

Table 2.D: Bulk Chemical Storage and Warehousing Facilities

(Adapt rows according to the local data collection and add rows where necessary, e.g. using and adapting ISIC Rev.4. Also prepare separate tables for specific regions if appropriate, and where more than one facility exists in a region prepare a separate table for each facility.)

Chemical Type	Size / Capacity (Volume in cubic meters or weight in tons)	Type of Facility [1]	Location Area (Port, Industrial Complex, Urban, Rural)	Labelling; Health and Environment Protection Measures [2]
Pesticides (agricultural, public health, & consumer use)				
Fertilizers				
Petroleum Products				
Industrial Chemicals (used in manufacturing / processing facilities)				
Consumer Chemicals				
Chemical Waste				
Other Chemicals (unknown / mixed use)				

1 Indicate the type of storage facility, e.g. whether: open, partly covered, completely enclosed, bounded, monitored for air and water emissions.

2 Indicate whether the GHS or other system is used for labelling the storage facility and, as may be appropriate, whether there are special precautions to protect flammables from ignition; to minimise the potential of exposure to poisons; and to segregate incompatible compounds to prevent their accidental mixing (via spills, residues left in storage containers, earthquakes, fires, or human error).

An indication could be given if the individual storage facilities are specifically for warehousing chemicals while in transit to another country. More description can also be given on specific facilities regarding the adequacy of the facility in relation to the handling of chemicals at the site, related health and environmental protection aspects, and impact on the local community. An indication could also be given as to whether an up-to-date inventory of chemicals at the storage facility is kept, and to whom this inventory is available.

If co-storage of bulk chemicals with other goods (e.g. food/feed stocks) is used at any site, a description should be given of the facilities and any precautions that are used to segregate incompatible materials and avoid mixing or spills during emergencies, etc.

2.5 Transport of Chemicals and Related Issues

This section deals with issues related to the chemicals supply chain and is concerned with the facilities for safe transport of chemicals either from the site of production/transformation or the place of importation. It deals with the facilities for the full chemicals life cycle supply chain. For example, bulk chemicals are usually imported into a country either by sea (or inland waterway), rail, or road. The point of entry provides an opportunity to check the nature and quantity of chemicals. Chemical products manufactured or transformed in local industries are transported to local markets or to exit points for export to other countries.

The purpose of Table 2.E is to get an understanding of the extent and nature of chemical transportation facilities in the country, particularly for bulk materials. This section is not meant to cover local distribution facilities within individual enterprises or small scale use transport of chemicals to local domestic markets. The first column of the table should be adapted to be consistent with decisions made concerning the scope of the National Profile, as well as with the definitions of terms in the glossary.

Table 2.E: Supply Chain for Bulk Chemical Distribution and Transportation

(Adapt rows according to the local data collection and add rows where necessary, e.g. using and adapting ISIC Rev.4. Also prepare separate tables for specific regions if appropriate, and where more than one major bulk transportation facility exists in a region prepare a separate table for each facility.)

Chemical Type	Type of Transportation Facility: Maritime, Inland waterway, Rail, Road, Air	Approximate Capacity (Volume in cubic meters or weight in tons transported by year)	Labelling; Health and Environment Protection Measures [1]
Pesticides (agricultural, public health & consumer use)			
Fertilizers			

Chemical Type	Type of Transportation Facility: Maritime, Inland waterway, Rail, Road, Air	Approximate Capacity (Volume in cubic meters or weight in tons transported by year)	Labelling; Health and Environment Protection Measures [1]
Petroleum Products			
Industrial Chemicals (used in manufacturing/ processing facilities)			
Consumer Chemicals			
Chemical Waste			
Other Chemicals (unknown/mixed use)			

1 Indicate whether the GHS/UNRTDG or other system is used for labelling of the transport facility and, as may be appropriate, whether there are special precautions to protect flammables from ignition; to minimise the potential of exposure to poisons; and to segregate incompatible compounds to prevent their accidental mixing (via transport accidents and spills, residues in containers, earthquakes, fires, or human error).

An indication could be given if the transportation facilities are specifically for transit of chemicals to another country. More description can also be given on specific transportation facilities and transportation practices (including transportation of a mixture of chemicals with other goods) regarding their adequacy in relation to the handling of chemicals during the supply chain, related health and environmental protection aspects, and impact on the local community

An indication could also be given as to whether there is a registration system as well as an up-to-date inventory of bulk chemicals transportation, e.g. from the point of importation or manufacture to the end user or point of exportation, and to whom this inventory is available.

2.6 Chemical Waste Management

Some chemical wastes are relatively inert, others are “hazardous” or “toxic”, depending on the intrinsic properties and circumstances. This section, using Table 2.F, could summarise the total amount of various chemical waste generated and traded each year. Where possible, descriptions could be provided regarding the type and nature of this waste (reference can be made to categories of hazardous waste defined in the Basel Convention[11]). Imports and/or exports of chemical wastes, where relevant, could also be described.

[11] See http://www.basel.int. Countries that are Parties to the Basel Convention may be reporting regularly on the national import/export data and on material for recycling and disposal of waste.

Table 2.F: Chemical Waste Generation and Trade

(For some countries it may be useful to breakdown the information by sector (appropriate ISIC Rev.4 categories could be used) and by region.)

Type of Chemical Waste [1]	**Generation (tons/year)**	**Export (tons/year)**	**Import (tons/year)**
Total			

1 In accordance with national definitions (define in the glossary).

Obsolete Chemical Stockpiles, Chemical Waste Sites, and Contaminated Sites

Where chemical specific data is required, e.g. for chemicals under conventions or for obsolete pesticides inventories, Table 2.G can be prepared indicating the number, location, and magnitude of stockpiles or waste deposits and of contaminated sites. Nationally used definitions for obsolete chemicals should be included in the glossary.

Table 2.G: Obsolete Chemical Stockpiles, Chemical Waste Sites, and Contaminated Sites

(Expand boxes as required. Separate tables per region could also be prepared.)

	Geographical location (GPS coordinates or Lat. Long.)	**Main content by chemical or groups of chemicals/waste**	**Magnitude of the site or stocks; e.g. small, medium, or large**
Obsolete Chemical Stockpiles Site 1 Site 2 Etc.			
Chemical Waste Sites Site 1 Site 2 Etc.			
Contaminated Sites Site 1 Site 2 Etc.			

Technical Facilities for Recovery and Recycling of Chemicals

This section could provide an overview of relevant recycling or recovery facilities for chemicals and related waste. There is often an economic and ecological advantage in recovery of raw material chemicals of high economic value (such as metals like copper, gold, and silver), and of chemicals with a high energy value (like aluminium or certain hydrocarbons), as well as in recycling of substances such as solvents and oils. Details on facilities for recycling and recovery of chemicals can be added to Table 2.H.

Table 2.H: Facilities for Recovery and Recycling of Chemicals and Related Waste

(It may be useful to breakdown the information by industrial sector (appropriate ISIC Rev.4 categories could be used) and by region. Where appropriate, cross reference should be made to section 2.5 above. To describe the recovery operations (third column), R codes of Annex IV B of the Basel Convention could be used.)

Location of facility/ operation or process	**Description of the facility, operation or process**	**Recovery operation (Annex IV B) R code**	**Capacity of the facility (in metric tons)**	**Does the facility treat wastes imported? Yes/No**

Capacity for Disposal of Chemicals

This section could provide an overview of the relevant facilities and processes for disposal of chemicals and related waste in the country. For example, land and water dumping, impounding, incineration, permanent storage, and biological and physicochemical treatment. Some types of facilities are environmentally sound; others may have health and environmental impacts. All should be monitored. Details on facilities and processes for disposal of chemicals can be added to Table 2.I.

Table 2.I: Facilities for Disposal of Chemicals and Related Waste

(It may be useful to breakdown the information by industrial sector (appropriate ISIC Rev.4 categories could be used) and by region. Where appropriate, cross reference should be made to section 2.5 above. To describe the disposal options (third column), D codes of Annex IV A of the Basel Convention could be used.)

Location of facility/ operation or process	**Description of the facility, operation or process**	**Disposal operation (Annex IVA) D code**	**Capacity of the facility (in metric tons)**	**Does the facility treat wastes imported? Yes/No**

2.7 Unintentionally Generated Chemicals

This section could reflect issues relating to unintentionally generated chemical substances and products, such as from fires or combustion (e.g. PCDD/PCDF); intermediates and chemical feed-stocks for other processes (e.g. methyl isocyanate, vinyl monomer or DDT); as well as chemicals-contaminated goods (e.g. cooking oils or domestic products with PCBs).

2.8 Assessment

This section could provide an analysis of existing capacities, gaps and needs, regarding chemical production, import, export, storage, transport, use, and disposal, as well as outline some initial priorities and associated proposals for action.

In particular, this section could summarise:

- the capacity for data collection on production, import, export, storage, transport, use, and waste disposal of chemicals;
- the main sources of the data; and
- where there are gaps or data that is considered unreliable, for example, in areas of chemical waste or chemicals used in the informal sector.

Suggestions could be given as to:

- how more reliable data generation can be promoted; and
- the feasibility of introducing registration and inventories, e.g. for chemicals storage and transportation.

With respect to technical infrastructure for recycling and recovery as well as for disposal of chemicals and related waste in the country, a number of additional questions could be addressed, including for example:

- What are the possible health and environmental impacts of the facilities?
- Are facilities monitored for emissions?
- Are there specific arrangements for dealing with emergencies involving these facilities?
- Is there any cooperation with other countries in the recycling, recovery, or disposal of chemical wastes?
- Is the country actively participating in a Basel Convention Regional Centre?

Where illegal traffic and smuggling of chemicals and related waste are suspected, an indication of the extent of the problem and possible origins could be given and suggestions made for better quantifying the issues. Other international issues that may arise through the bulk storage and transit transport of chemicals for import to and export from a neighbouring country could also be addressed here.

Any other special issues relating to chemicals production, importation, exportation, and use, and waste generation along with stockpiles, warehousing, and transport of chemicals may also be discussed and proposals for their solution made.

Table 2.J can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 2.J: Priorities and Possible Actions: Chemical Production, Import, Export, Storage, Transport, Use, and Disposal

Priority Issues (Ranked from highest to lowest)	**Level of Existing Capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 3: Legal Instruments and Non-Regulatory Mechanisms for the Sound Management of Chemicals

Purpose of Chapter 3

To provide an overview of existing legal instruments and non-regulatory mechanisms for managing chemicals, including their implementation and enforcement, and to identify relevant strengths, weaknesses, and gaps

Due to the cross-sectoral nature of chemicals management, it is likely that the legal instruments in a country address chemicals and waste in different ways. Furthermore, many of these laws, regulations, standards, decrees, or other legal instruments may be relevant even when they are not limited to, or specifically target, chemicals. For example, general transport laws, regulations relating to offshore activities, or environmental health laws may have some control provisions which are applicable to hazardous chemicals.

This does not mean, however, that all important aspects of chemicals management are covered or that there is consistency or complementarity among these legal instruments. In addition, a number of non-regulatory mechanisms may exist that play an important role in chemicals management.

Chapter 3 therefore aims to provide a summary of all relevant legal instruments and non-regulatory mechanisms related to the sound management of chemicals (which could also include unintentional by-products and intermediates, as well as toxins of natural origin); undertake an overall analysis of their adequacy; and address the related implementation and enforcement aspects.

3.1 Overview of Legal Instruments which Address the Management of Chemicals

The purpose of Table 3.A is to provide a list of all laws, regulations, standards, decrees, or other legal instruments relevant to the management of chemicals. Information should be provided on scope and objective of each instrument, the ministry(ies) or other body(ies) responsible for implementation and enforcement, and sections or articles which address issues of chemicals management.

Table 3.A: Overview of All Existing Legal Instruments Which Address the Management of Chemicals

Legal Instrument (Type, Reference, Year) [1]	Responsible Ministries or Bodies	Category of Chemicals, Type of by-product, or Type of Related Waste Covered [2]	Chemical Life Cycle Stage Covered	Objective of Legal Instrument	Relevant Articles/ Provisions

1 Copies of relevant legal instruments could be made available as an Annex to the National Profile.

2 Categories of chemicals could include, for example, agricultural chemicals, industrial chemicals, consumer product chemicals, toxins of natural origin; type of chemical by-products could include, for example, air emissions, water emissions; and type of related waste could include, for example, industrial, medical, domestic.

3.2 Additional Details on Key Legal Instruments Relating to Chemicals

Section 3.2 could build on section 3.1 and provide additional details on legal instruments which are considered of particular importance for the management of chemicals. For each relevant instrument, the following information could be provided:

- Lists of specific chemicals/groups of chemicals or waste which are covered and/or the criteria applied for selecting those which are covered;
- Means for making legal instruments publicly known (e.g. official journals or registers), including the availability of translations;
- A brief description of administrative procedures included under the legal instruments (such as information requirements, risk assessment, classification, and labelling) and management schemes (such as registration of pesticides or other classes of chemicals, permitting schemes or licensing of installations or traders, and provision of information to the public) (also see section 3.4);
- Mechanisms included to monitor implementation (e.g. audit procedures, reporting requirements), actions which can be taken for non-compliance (e.g. fines, revocation of licenses, shutdown of facilities, prison terms), and current level of enforcement (e.g. from weak to effective) including the availability of human and financial resources for enforcement. It may also be useful to determine the number of prosecutions per year under the legal instrument, which can be a useful indication of the effectiveness of enforcement, and if there been any challenges in the courts concerning the legal instrument or if

the courts found authorities in breach of implementing the legal instrument; and

- Existing databases which have been created as a result of such instruments (e.g. permit databases and emission registers). For each relevant database, there could be a description of the scope and objectives, location of hosting of database, and responsible body. (Also see Chapter 7.)

3.3 Coverage of the Chemicals Life Cycle Stages by Existing Legal Instruments

Based on the information provided in Sections 3.1 and 3.2, Table 3.B is meant to provide an overview of coverage of legal instruments across the entire life cycle of chemicals management. This overview could assist in identifying missing elements as well as opportunities for strengthening the existing system. It is expected that, at a minimum, the table address agricultural, industrial, and consumer product chemicals, as well as related waste. The table may be expanded to cover individual chemicals or specific groups of chemicals and waste.

It should be kept in mind that legal instruments may not always be needed to reduce chemical risks and that non-regulatory mechanisms may be used in certain cases including, for example, incentive systems or voluntary programmes by industry.

***Table 3.B: Overview of Legal Instruments to Manage Chemicals by Life Cycle Stage*[1]**

(The first column of the table may be expanded to include specific chemicals or waste, e.g. for POPs.)

Category of Chemical	**Import**	**Production**	**Storage** [1]	**Transport** [2]	**Distribution / Marketing**	**Use / Handling**	**Export**	**Disposal**
Pesticides (agricultural, public health and consumer use)								
Fertilizers								
Industrial Chemicals (used in manufacturing & processing facilities)								
Petroleum Products								
Consumer Chemicals								

Chemical Wastes								
Others								

1 If a specific stage is adequately addressed through legal instruments, an "X" should be filled in.
2 It should be recognised that transportation and storage can occur at various stages of the chemicals' life cycle from production through disposal.

3.4 Summary Description of Key Administrative Procedures for Control of Chemicals

The purpose of this section is to provide an overview of the existing administrative procedures used to control various classes of chemicals. These procedures may be relevant at different stages of the chemicals life cycle and could address, for example, classification and labelling of chemicals/products/waste, registration of products, permits (e.g. for discharge), licenses (e.g. to operate), reporting requirements, inspections, and information to be provided to workers and/or the public.

For each of the procedure, descriptive information could include, for example:

- a short description of relevant instruments, including applicable limitations;
- agency/organisation responsible for each procedure (including whether they are national, regional, or local);
- the level and nature of enforcement including the availability of human and financial resources for enforcement;
- the role of the judiciary in enforcement and whether civil action has been brought in the courts to enforce legislation; and
- the role of nongovernmental organisations in monitoring and enforcement, as well as in education and public awareness.

To the extent appropriate, related decision-making procedures could be described and/or illustrated (e.g. through flow charts) including an indication of which parties are involved at various points in the procedures. For example, this could be done for the registration of pesticides and other chemicals, licensing of facilities, emissions permits, import decisions under the PIC procedure, etc.

This section could also include a listing of chemicals which have been banned or severely restricted as well as a listing of national PIC import decisions. This information could be presented in Table 3.C.

Table 3.C: Banned or Severely Restricted Chemicals [1]

Name of Chemical	Level of Restriction (ban (B) or severe restriction (SR))	Details of Restriction (e.g. reason for control action, remaining allowed uses, etc.)

1 Following the criteria established by the Rotterdam Convention on Prior Informed Consent.

3.5 Legal Instruments for Related Activities which Impact on Chemicals Management

Many broader areas of legislation not specifically or directly concerned with chemicals may have an important impact on chemicals management. Regulations regarding, inter alia, land-use in both the urban and rural contexts, zoning, traffic and motor vehicle control, construction, and environmental quality control may impact directly or indirectly on the way chemicals are used and disposed of. For example, regulation on the use of various types of packaging materials may have an impact on both chemical waste and POPs emissions issues. This section provides an opportunity to review these additional areas of legal and policy instruments in relation to sound chemicals management.

For each of the legal instruments, descriptive information could include, for example:

- a short description of relevant instruments, including applicable limitations;
- agency/organisation responsible for each procedure (including whether they are national, regional, or local);
- the level and nature of enforcement including the availability of human and financial resources for enforcement;
- the role of nongovernmental organisations in monitoring and enforcement, as well as in education and public awareness; and
- the role of the judiciary in enforcement and whether civil action has been brought in the courts to enforce legislation.

To the extent appropriate, decision-making procedures could be described and/or illustrated (e.g. through flow charts) including an indication of which parties are involved at various points in the procedures.

3.6 Non-regulatory Mechanisms for Managing Chemicals

Section 3.6 could provide a description of all non-regulatory mechanisms which have a role in chemicals management. These could include, for example:

- voluntary actions by industry, such as Responsible Care programmes;
- economic incentives, such as tax benefits; and

- other incentives.

For each mechanism, a summary could be provided which describes, as appropriate:

- the nature of the mechanism;
- the classes of chemicals covered;
- the objective of the mechanism;
- the parties responsible for its implementation;
- the nature and extent of implementation; and
- where possible, the costs associated with the use of each mechanism and the relative cost-effectiveness of using such an approach.

3.7 Assessment

Section 3.7 could provide an analysis of the national legal and non-regulatory infrastructure for chemicals management, including related capacities and gaps. This could be followed by an outline of initial priorities and associated proposals for action. A number of questions could be addressed including, for example:

- Are there any gaps or overlaps in the existing legal system for the management of chemicals, and regarding the related roles and responsibilities of authorities? If so, these should be described and a distinction should be made among classes of chemicals, such as pesticides, industrial chemicals, and consumer chemicals, or specific chemicals.
- How effective is enforcement of the different legal instruments? In case enforcement is not effective, what are the underlying reasons?
- How effective are non-regulatory instruments in reducing chemical risks in the country (e.g., incentive systems, voluntary programmes by industry)? What are the reasons for their success or failure or for their inexistence?
- Are there any new legal instruments currently being proposed in the country? (Reference should be provided to the relevant initiative including the responsible ministry.)
- Are there any legal instruments that are the direct result of international conventions or agreements? If yes, specify the respective laws and the relevant international instrument.
- Are there any modifications to or new regulations, legislation, or other instruments required to meet the country's commitments to chemicals or wastes related MEAs, such as the Basel, Rotterdam or Stockholm Conventions or the Montreal Protocol?
- For each chemical use category, an analysis could be conducted whether existing control instruments are appropriate, effective, and comprehensive. This could include available descriptions and statistics of events where the existing control instruments have failed or problems have arisen.

Table 3.D can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 3.D: Priorities and Possible Actions: Legal Instruments and Non-Regulatory Mechanisms for the Sound Management of Chemicals

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 4: Ministries, Agencies, and Other Governmental Institutions Managing Chemicals

Purpose of Chapter 4

To describe and analyse the mandates and programmes of different ministries, agencies, and other governmental institutions responsible for, and concerned with, various aspects of chemicals management

4.1 Responsibilities of Different Ministries, Agencies, and Other Governmental Institutions

The purpose of Table 4.A is to provide a general overview of the responsibilities and activities of ministries, agencies, and other governmental institutions related to chemicals management for each stage of the chemical life cycle from production/import through disposal and recycling. The overview is meant to assist in documenting areas currently covered, and in identifying missing elements or possible overlaps in the national institutional infrastructure. Based on this overview, further descriptions of relevant responsibilities and activities could be provided in Section 4.2.

For each cell in the table, an indication could be provided for which governmental institution has responsibility for the control of chemicals for each stage from importation and production, storage, transport, use through disposal and recycling. Separate tables could be completed for different classes of chemicals such as pesticides, petroleum products, industrial chemicals, consumer chemicals, POPs, and other chemicals of national concern, as appropriate.

The governmental institutions listed in the first column are provided as examples. The table should be adapted to include the appropriate bodies in the country. To the extent applicable, it could include regional and local agencies and institutions.

Table 4.A: Responsibilities of Ministries, Agencies, and Other Governmental Institutions [1]

Stages of Life Cycle / Concerned Ministry, Agency, Governmental Institution	Importation	Production	Storage	Transportation	Distribution / Marketing	Use / Handling	Disposal / Recycling
Environment							
Health							
Agriculture							
Labour							
Trade / Commerce							
Industry							
Finance							
Transport							
Interior / Civil Defence							
Justice							
Customs							
Standards							
Foreign Affairs							
Other							

1 Check the appropriate box with an "X" where ministries, agencies, or governmental institutions have responsibilities and explain in the text in section 5.2.

4.2 Description of Ministerial Authorities and Mandates

Section 4.2 could include additional information concerning each of the governmental institutions identified in Section 4.1. This information could include:

- a brief description of their primary responsibilities for, and involvement in, specific aspects of chemicals management, e.g. occupational health, public health, environmental protection (air, water, habitats, species, etc.), pesticides control, industrial safety, emergency response, inspection and enforcement, etc.;
- the type and level of expertise available for chemicals management activities.

In addition, it may be useful to address the following:

- the role of regional or local governmental authorities and how they interact with the central government authorities; and the benefits or possible hindrances to the sound management of chemicals due to the division of responsibilities between central, regional, and local authorities; and
- the role of Presidential Decrees and any National Commissions (e.g. for Sustainable Development) in chemicals management and their effectiveness (also see Chapter 7).

4.3 Assessment

This section could provide an analysis of the mandates of the governmental institutions, including related capacities, gaps and needs, in order to ensure a well coordinated division of responsibilities related to the sound management of chemicals. This could be followed by an outline of initial priorities and associated proposals for action. A number of questions could be addressed in this section, including:

- Are there overlapping mandates among the governmental institutions, and across different levels of government in the country? If relevant, is this issue addressed in practice? How?
- Are there situations where it is not clear which governmental institution is responsible for fulfilling a general mandate set out in a legal instrument?
- Should additional governmental institutions be involved which presently do not have any responsibility/activity with regard to chemicals management, or with regard to certain life cycle stages? If relevant, why should or shouldn't they be involved?
- Are Presidential Decrees and National Commissions effective policy instruments for the sound management of chemicals? (Also see Chapter 7.)
- What is the current degree of implementation of the various institutional mandates? To the extent possible, it is useful to assess the effectiveness of concerned governmental institutions towards implementing various regulations and administrative procedures.

Table 4.B can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 4.B: Priorities and Possible Actions: Ministries, Agencies, and Other Governmental Institutions Managing Chemicals

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 5: Relevant Activities of Industry, Public Interest Groups, Professional Bodies, and the Research Sector

Purpose of Chapter 5

To describe and review activities of nongovernmental organisations which support national efforts to manage chemicals

Chapter 5 could provide information on all relevant programmes conducted by nongovernmental organisations, including industry, public interest groups, professional bodies, and the research sector. This information is considered important in light of the significant role that nongovernmental organisations should play in the sound management of chemicals.

Not all countries have a broad spectrum of nongovernmental organisations and some, such as professional bodies or associations, may not be present. Among the public interest groups and industrial, scientific, and professional associations, there are international bodies that can play a valuable role, such as the International POPs Elimination Network (IPEN); Pesticide Action Network (PAN); Greenpeace International; World Wide Fund for Nature (WWF); International Council of Chemical Associations (ICCA); International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF); International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM); International Metalworkers' Federation; International Council of Scientific Unions (ICSU); International Standards Organization (ISO); and International Societies of Toxicology, including the International Union of Toxicology (IUTOX), North American Academy of Clinical Toxicology (NAACT), European Association of Poison Centres and Clinical Toxicologists (EAPCCT), and Asian and Pacific Association of Medical Toxicologists (APAMT). It should be noted that for the implementation of certain international agreements, e.g. the Stockholm Convention, the involvement of nongovernmental stakeholders is a legal requirement.

Relevant nongovernmental organisations may include:

- ***industrial organisations and entities*** involved in the production, import, formulation, sales/marketing, storage, transport, use, export or disposal of chemicals. In most countries there will be a Chamber of Commerce, and possibly associations of pesticides dealers and distributors, chemical manufacturers, and SMEs. They may be involved in voluntary activities related to chemicals management such as implementation of the FAO Code of Conduct, Responsible Care and product stewardship programmes, and emergency response assistance;

- ***labour unions and workers' associations***, which are involved in occupational health and safety in the workplace and often have awareness and training programmes for their members, and can also be important advocates for chemical safety;
- ***professional and scientific associations and bodies*** involved in the professional conduct of their members and providing codes of practice and expertise in areas of chemicals risk assessment and management; as well as standards organisations concerned with accreditation of facilities, such as laboratories, and harmonisation of standards applied in the commercial field, including those related to chemicals and waste;
- ***universities, research institutes, private laboratories, libraries, and quasi-governmental organisations.*** Academia and the research sector typically includes researchers from major universities as well as representatives of agricultural, forestry, or marine research centres and can serve as sources of scientific/technical information needed for chemicals management, and/or are conducting related research and development. The main relevant professional bodies, such as societies of toxicology, emergency medicine, and chemical engineers, also have access to relevant information; and
- ***public interest groups and other nongovernmental organisations*** including community-based organisations (e.g. environmental, health, consumers', and women's groups, and associations of indigenous peoples) have an interest in the sound management of chemicals, and may also have specific local interests within a country.

5.1 Description of Nongovernmental Organisations/Programmes

Section 5.1 could provide brief information on each relevant organisation, including focal point, contact information, and a brief statement describing related activities and areas of interest.

It is recognised that in some countries, in particular in larger countries, the relevant organisations may be too numerous to list and describe and, therefore, some mechanism could be chosen to determine which organisations are the most important or active in the field. Where international associations or bodies contribute to aspects of sound management of chemicals in the country, a description of their roles should also be included.

5.2 Summary of Expertise Available Outside of Government

Table 5.A could provide an overview of the nature of expertise in nongovernmental organisations which might be available to support national programmes and policies related to chemicals management. It may be appropriate to prepare separate tables for each class of chemicals addressed in the National Profile. The number of columns may be expanded to include other specific nongovernmental organisations (national, regional, or international) or to give a more detailed breakdown of the various categories of nongovernmental organisations.

Table 5.A: Summary of Expertise Available Outside of Government [1]

Field of Expertise	Research Institutes	Universities, incl. University Hospitals	Industry	Environmental / Consumer Groups	Labour Unions	Professional Organisations	Other (specify)
Data Collection							
Testing of Chemicals							
Risk Assessment							
Risk Communication							
Risk Reduction							
Policy Analysis							
Classification and Labelling							
Training and Education							
Accreditation							
Research on Alternatives							
Monitoring							
Heath Surveillance							
Environmental Surveillance							
Enforcement							
Information to Workers							
Information to Specific Professional Groups							
Information to Public							
Diagnoses and Treatment of Poisoning							
Other (specify)							

1 Check the appropriate box with an "X" where expertise is available outside of government. Further information could be also provided in this section which will allow concerned parties to understand who has the expertise, as well as the nature of related activities, where they take place, and how to obtain further information.

5.3 Assessment

This section could provide an analysis of the activities of nongovernmental organisations, including related capacities, gaps and needs, and the (actual or potential) linkages of such activities with governmental programmes to strengthen chemicals management. This could be followed by an outline of initial priorities and associated proposals for action. Questions which could be addressed include:

- What is the government policy (or policies) concerning opportunities for nongovernmental organisations to obtain government information related to the management of chemicals? Does this also apply to the international NGOs?
- What is the government policy (or policies) concerning opportunities for nongovernmental organisations to provide information to the government related to the sound management of chemicals? Does this also apply to the international NGOs?
- What role do nongovernmental organisations have in government decision-making concerning the management of chemicals; and are these organisations consulted in the planning and proposals stages for new or modified chemicals legislation, regulations, etc.?
- Which voluntary initiatives in industry (or elsewhere) are successful and may supplement chemicals management activities of government?
- What role do nongovernmental organisations play in informing the public about chemical risks and about government activities in this area?
- What rights do nongovernmental organisations have to seek enforcement of laws and regulations related to the control of chemicals; is there a precedence for the involvement of the judiciary?
- Is there any information, studies, or previous research conducted by nongovernmental organisations, including industrial organisations, relevant for strengthening government's capacity for chemicals management? If so, how does the government use this information?
- To what the degree is there existing cooperation between government and nongovernmental sectors in chemicals management?

Table 5.B can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 5.B: Priorities and Possible Actions: Relevant Activities of Industry, Public Interest Groups, Professional Bodies, and the Research Sector

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 6: Interministerial Commissions and Coordinating Mechanisms

Purpose of Chapter 6

To describe and analyse mechanisms which facilitate coordination and cooperation among ministries, agencies, and other relevant governmental and nongovernmental bodies in particular areas of chemicals management

In preparing this chapter reference may be made also to the report of the UNITAR/IOMC thematic workshop on Interministerial Coordination for the Sound Management of Chemicals, August 2002.[12]

6.1 Overview of Interministerial Commissions and Coordinating Mechanisms[13]

Table 6.A could provide an overview of any relevant mechanisms for coordinating activities among relevant institutions. Countries are encouraged to adapt the table to the national situation. More detailed summary descriptions of key mechanisms and their effectiveness can be provided in Section 6.2, as appropriate.

Table 6.A: Overview of Interministerial Commissions and Coordinating Mechanisms

Name of Mechanism	Responsi-bilities	Secretariat	Members	Legislative Mandate / Objective	Effective-ness [1]	Information Provided in Section 6.2 [2]

1 Enter: Low, medium, or high.
2 Enter: Yes or no.

[12] Available on the UNITAR website: http://www.unitar.org/cwm
[13] While this chapter addresses coordination and cooperation *across* various institutions, it should be borne in mind that vertical and horizontal coordination *within* ministries, institutions, etc. is also of great importance.

6.2 Description of Interministerial Commissions and Coordinating Mechanisms

Section 6.2 could describe in more detail interministerial commissions and coordinating mechanisms referred to in Table 6.A which are considered of particular importance for the management of chemicals or for specific international commitments. For each mechanism, the following information could be provided:

- Type of mechanism (e.g. interministerial body, standing committee, formal consultative process, ad hoc groups); and how it was established (such as by Presidential Decree, a legal requirement of a Parliamentary Act, or an informal arrangement);
- Scope of issues and chemicals covered;
- Members included (including governmental and nongovernmental);
- Working procedures (e.g. nature and frequency of meetings, decision-making procedures); budget available for the operation of the mechanism; how often the mechanism been convened in the previous 12 months; and
- Diagnosis of current weaknesses.

Where appropriate, it may be useful to prepare diagrams or flow charts, for example, relating to an interministerial commission established for the registration of pesticides or for setting residue levels of pesticides and other chemicals in food; or for responding to chemical emergencies.

6.3 Description of Mechanisms for Obtaining Input from Nongovernmental Organisations

Section 6.3 could provide a description of any relevant mechanism for obtaining input from nongovernmental organisations into government review and decision-making procedures, recognising that such organisations often have important information not otherwise available to government. The term “input” could include: sharing of information; reporting; and participation in planning, decision-making, and implementation of national chemicals management programmes and policies. Reference could also be made to the list of relevant nongovernmental organisations presented in section 6.1 above.

6.4 Assessment

This section could provide an analysis of the existing interministerial commissions and coordinating mechanisms which help to facilitate a well coordinated division of responsibility and interministerial cooperation related to the sound management of chemicals. Specific attention should be devoted to their effectiveness and the extent to which groups are aware of means for input. The analysis could include related capacities, gaps and needs, and could be followed by an outline of initial priorities and associated proposals for action. The following questions could be addressed in preparing this section:

- Are existing coordinating mechanisms working effectively? What could be done to improve them? For example, are the following required: technological solutions (e.g. website or access to online data); organisational solutions (e.g. ad hoc groups); more frequent communication (e.g. regular newsletter); political support from higher authorities; budgetary resources?
- Are all parties from government ministries and agencies which may be able to contribute represented in each of these mechanisms?
- Do these mechanisms cover all important aspects of chemicals management which require interministerial coordination and cooperation? Are they linked with related coordination mechanisms for development or disaster preparedness and response? Is there a need for establishing additional coordinating mechanisms? If so, for which purpose?
- Are the existing mechanisms linked with each other or do they work separately?
- Are there opportunities to bring in additional parties from outside of government in these mechanisms?
- Are there opportunities to include additional parties on a case-by-case basis to deal with specific issues of concern?
- Is information shared across the different agencies charged with chemicals management? What current mechanisms exist to share information among agencies? (Also see Chapter 8.)

Table 6.B can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 6.B: Priorities and Possible Actions: Interministerial Commissions and Coordinating Mechanisms

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity (Low, medium, high)**	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 7: Information Management, Access, and Use

Purpose of Chapter 7

To provide an overview of the information management capacity in the country related to the sound management of chemicals, and in particular the availability of data and how it is used for national and local chemical risk reduction

This chapter is concerned with the capacity of the country to access and collect data, and use it for the sound management of chemicals under local conditions. It addresses the quality, quantity, and location of data; procedures for collecting and disseminating it; and information management tools and exchange systems. It should be kept in mind that there is a vast amount of internationally-available information and that countries need access to validated data that they require for decision-making. Additionally, information is needed on the local situation in the country in order to apply effective chemicals management. The first section of this chapter deals with the quality and quantity of available information for decision-making; the second and third, respectively, with the location of national data and procedures for collecting and disseminating it; the fourth on availability of international literature and databases; and the fifth on the government information systems, IT capacity, and the exchange of information.

7.1 Overall Availability of Data for National Chemicals Management

Table 7.A provides an overview of whether sufficient data is available for different decision-making activities which may be required under existing legal instruments. The items listed in the first column are provided as examples, which should be adapted to the national situation. Additional columns may also be added as appropriate, for example if dealing with a particular group of chemicals of concern, e.g. POPs. The terms should be defined in the glossary.

Table 7.A: Sufficiency (in Quality and Quantity) of Available Information [1]

Data Needed for/to:	Pesticides (Agricultural, Public Health, and Consumer Use)	Industrial Chemicals	Consumer Chemicals	Chemical Wastes	Other Areas of Chemicals Concern (state which)
Priority Setting					
Assess Chemicals Impact under Local Conditions					
Risk Assessment (Environment/Health)					
Classification/ Labelling					
Registration					
Licensing					
Permitting					
Risk Reduction Decisions					
Accident Preparedness/ Response					
Poisoning Control					
Emissions Inventories					
Inspections & Audits (Environment/ Health)					
Information to Workers					
Information to the Public					
Others					

1 If sufficient information is available for the tasks listed in the first column of the table, an "X" should be placed in the appropriate box.

Where an "X" is not placed in a box (i.e. where there is insufficient information), then an indication should be given in this section as to the extent of information available for the particular decision-making activity, with suggestions of how availability could be improved. Examples include:

- A country may have access to good quality data on poisoning control (treatment of persons exposed to specific chemicals), but insufficient data on the composition of consumer goods to use the data in treating persons exposed to these chemicals;
- Much data may be available on the risk assessment of a particular industrial chemical, but the epidemiological data under local conditions may not be of sufficient quality to permit a decision on acceptable levels in the work place;
- Under the requirement for "classification and labelling" for "industrial chemicals" the information may be inadequate as the industry/manufacturer/importer does not provide a (or provides an inadequate) safety data sheet for this purpose;
- For "poison control" for "consumer chemicals", there may be inadequate labelling and the label is not required to give the ingredients by chemical name with quantities (e.g. composition of the product and solvent); and
- For "accident preparedness/response" the emergency response services may have no access to the information on product composition, and do not have a database on handling, protective clothing, and fire-fighting procedures for any of the groups of chemicals.

7.2 Sources of National Data and their Access and Format

The purposes of Table 7.B is to indicate the nature of national data related to chemicals management which is available, and to provide practical information on how to gain access to such data. Additional rows may be added to the table for other types of relevant data, e.g. POPs inventories. In particular, the table should indicate where data is maintained within government ministries, agencies, or other institutions or within nongovernmental organisations. Table 7.B. should also indicate the source of the data (which may be multiple), who has access to the data, and the form in which the data is maintained (e.g. automated database, paper files, register). An example may be "*Type of Data*: Production Statistics; *Location*: National Bureau of Statistics; *Data Source*: Industry, Ministry of Trade and Commerce, and Customs services; *Who has Access*: All government departments; *How to Gain Access*: Published on the Internet; *Format*: Excel tables". This section could also provide details concerning restrictions on access. It should be noted that much of the data collected for other chapters of this National Profile may originate from databases that should be described in detail here and appropriate cross reference should be made.

Table 7.B: Sources of National Data and their Access and Format

Type of Data	Location(s)	Data Source	Who Has Access	How to Gain Access[1]	Format
Production Statistics					
Import Statistics					
Export Statistics					
Chemical Use Statistics					
Industrial Accident Reports					
Transport Accident Reports					
Occupational Health Data (agricultural)					
Occupational Health Data (industrial)					
Poisoning Statistics					
Pollutant Release and Transfer Register					
Hazardous Waste Data					
Register of Pesticides					
Register of Toxic Chemicals					
Inventory of Existing Chemicals					
Register of Imports					
Register of Producers					
Prior Informed Consent Decisions					
Others					

1 This should include a description of any restrictions on access.

7.3 Procedures for Collecting and Disseminating National/Local Data

Additional information could be included in this section on the procedures for collecting and disseminating data related to chemicals management, particularly concerning shortcomings of the data and how collection and dissemination of data can be improved. Among the questions which could be addressed are:

- What types of data are collected on a systematic basis using harmonised formats with defined terms? In which languages? Which databases are computerised (see also section 7.5)?
- What types of data related to chemicals management are required by law to be provided to government authorities? By whom, when, and under what circumstances?
- Are data maintained on the health and environmental effects of chemical exposures locally in the country? If so, who has to develop, collect, provide, and analyze the data?
- Is there a systematic collection of information on chemical incidents, as well as chemical accidents in the work place? (Make cross reference to Chapter 10.)
- Are data maintained by government authorities, or others, related to the specific chemicals or groups of chemicals used in the country? Indicate which.
- Is access to the relevant data adequate once the government has collected them? Who has access to the data? What restrictions exist on access? What protection is given to confidential business information (CBI) and how is this defined?
- How can the collection of comparable local data in harmonised ways be improved and their access to all who need to use them for sound chemicals management be enhanced?

7.4 Availability of International Literature and Databases

The purpose of Tables 7.C and 7.D is to provide details on what international literature and databases are accessible within the country, including their location, in order to facilitate access to them by all concerned parties. For example, which specific office or location within institution(s) receives documentation. In this regard, government and nongovernmental organisations should be considered. Often, research institutes, universities, other libraries, industry, and other nongovernmental organisations have access to international sources of information which may not be easily available through governmental institutions. Furthermore, it should be borne in mind that most internationally available data is accessible both in hard copy and via the Internet. Similar information could be provided regarding the sharing of information among countries (including international, regional, and national literature and databases). For example, this might include assessments of chemicals and lists of priority chemicals. Tables 7.C and 7.D could also include information related to restriction of access and details of other relevant databases.

Table 7.C: Availability of International Literature

Literature	Location(s) [1]	Who Has Access and in What Form?	How to Gain Access [2]
SAICM Information Clearinghouse	http://www.saicm.org/index.php?menuid=36&pageid=251		
Environmental Health Criteria Documents (WHO/IPCS)	http://www.who.int/ipcs/publications/ehc/en/index.html		
Concise International Chemical Assessment Documents (WHO/IPCS)	http://www.who.int/ipcs/publications/cicad/en/index.html		
International Chemical Safety Cards (WHO and ILO)	http://www.inchem.org/pages/icsc.html		
Decision Guidance Documents for Prior Informed Consent Chemicals (FAO/UNEP)	http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx		
FAO/WHO Pesticides Safety Data Sheets	http://www.who.int/ipcs/publications/pds/en/index.html		
Documents from the FAO/WHO Joint Meeting on Pesticide Residues	http://www.who.int/ipcs/publications/jmpr/en/		
Documents from the FAO/WHO Joint Expert Committee on Food Additives	http://www.who.int/ipcs/publications/jecfa/en/index.html		
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html		
Material Safety Data Sheets (Industry)	http://www.msds.com		
OECD Guidelines for the Testing of Chemicals	http://www.oecd.org/document/40/0,3343,en_2649_34377_37051368_1_1_1_1,00.html		
Good Laboratory Practice Principles (OECD)	http://www.oecd.org/document/63/0,3343,en_2649_34381_2346175_1_1_1_1,00.html		
Good Manufacturing Practice Principles (WHO)	http://www.who.int/medicines/areas/quality_safety/quality_assurance/production/en/index.html		
Others			

1 Some URLs are provided. Other locations, such as national locations, should also be provided.
2 This should include a description of any restrictions on access.

Table 7.D: Availability of International Databases

Database	Location(s)	Who Has Access?	How to Gain Access [2]
ILO CIS	http://www.ilocis.org/		
WHO/IPCS INCHEM	http://www.inchem.org/		
WHO/IPCS INTOX	http://www.intox.org/		
WHO/IPCS Human Health Risk Assessment Toolkit: Chemical Hazards	http://www.who.int/ipcs/methods/harmonization/areas/ra_toolkit/en/index.html		
IRPTC	http://www.chem.unep.ch/irptc/irptc/databank.html		
Chemicals Abstract Services Database	http://www.cas.org/		
Global Information Network on Chemicals (GINC)	http://www.oshweb.com/owd/owd01.nsf/s/181-01		
STN Database	http://www.cas.org/products/stnfamily/index.html		
Relevant Databases from Other Countries [3]			
Other			

1 Some URLs are provided. Other locations, such as national locations, should also be provided.
2 This should include a description of any restrictions on access.
3 These should be specified.

7.5 National Information Exchange Systems and IT Capacity

This section could provide additional information on national activities, programmes, or policies which facilitate:

- information flow from international organisations to all concerned parties in the country;
- the exchange of national information among various ministries and other institutions and other concerned parties (e.g. Is there a national chemicals/waste website? Who maintains it and who has access to it? Are there any restrictions to access?); and
- formal or informal networking arrangements within authorities within the country and with institutions abroad.

With respect to government IT capacities (which can be used for chemical information systems, to access international databases, and for the implementation of governmental policies and programmes related to chemicals management), the following questions could be addressed in this section:

- Do all ministries and institutions concerned with different aspects of chemicals management have sufficient IT capabilities? Do all relevant staff, including those at the technical level, have access to computers? If not, who has access?
- Do database management systems for chemicals and various types of waste exist in the country (what is the basis, e.g. are they adapted from internationally available systems, with defined terms and harmonised formats) and who uses them? If there is more than one system are they compatible?
- Are the computer information systems in different ministries and other governmental institutions compatible?
- Are there general or specific problems with Internet access and if so why?

7.6 Assessment

This section could provide an analysis of the availability and use of information and the related infrastructure for national chemicals management, including related capacities, gaps and needs, and could be followed by an outline of initial priorities and associated proposals for action. Consideration could be given, for example, to the following questions:

- Are there significant gaps in the literature/information base and its current distribution? If so, where are these gaps?
- Does the existing international data (e.g. on risk assessment, or economic evaluation) allow interpretation and application under conditions in your country?
- Are there overlapping and/or conflicting sources of information related to chemical assessment and management?
- What is the present state of existing databases in the country? Are they automated? Is there harmonisation of data in terms of definitions and standardised data collection formats? How are they maintained? Can they be queried? Is there a national chemicals/waste website? Who has access to and who provides data for this website?
- Is access to international databases or documentation sufficient? If not, what are the problems?
- Do all concerned parties have appropriate access to information? If not, what are the underlying reasons?
- Are there current efforts/initiatives to improve the quality of existing databases?
- How can existing data/information mechanisms be strengthened?
- How can further information on specific chemicals, or groups of chemicals used in the country, be obtained?

- What is the national policy on public access to government information?

Table 7.E can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 7.E: Priorities and Possible Actions: Information Management, Access, and Use

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 8: Technical Infrastructure

Purpose of Chapter 8

To provide an overview of the technical infrastructure in the country related to the sound management of chemicals, and in particular, the analytical capacity required. Other areas of technical infrastructure not covered elsewhere and considered of importance by a country may be added to this chapter

This chapter is concerned with the technical infrastructure to support national programmes and policies for chemicals management, and in particular the technical capacity for chemical analysis. This includes laboratory facilities providing analytical chemistry capabilities which can, inter alia, help to ensure the quality of chemicals, conduct residue analyses, identify unknown substances, and monitor for possible adverse effects. For countries wishing to undertake a more detailed analysis of analytical capacity, see the report of the UNITAR/IOMC Thematic Workshop on *Strengthening National Capacities for Chemical Analysis and Monitoring for the Sound Management of Chemicals* and the Survey Reporting Format given in Annex A of this report.[14] Countries may also be interested in reviewing a global inventory of POPs laboratories that has been prepared by UNEP[15].

8.1 Overview of Laboratory Capacity

The purpose of Tables 8.A and 8.B is to provide an overview of the laboratory facilities available in the country to support programmes and policies for the management of chemicals. Table 8.A deals with the laboratory capacity related to regulatory chemical analysis. Table 8.B deals with the monitoring capacity and ability to support health and environmental surveillance (e.g. for pesticide or workplace exposures; for POPs in the environment; for chemical contamination in groundwater). All relevant laboratories should be mentioned, including those in government agencies, research institutes, universities, and, where appropriate, the private sector, etc. However, it is recognised that in more developed countries there may be too many laboratories to be included in a table. In that case, the most important laboratories, from the perspective of enforcing chemicals management policies, should be included in Table 8.A, and those concerned with monitoring in relation to health (such as clinical analytical toxicology laboratories) and to the environment (eco-toxicology laboratories) in Table 8.B.

[14] This workshop report is available on the UNITAR website: http://www.unitar.org/cwm
[15] http://www.chem.unep.ch/gmn/gmnlabs/default.htm

Table 8.A: Overview of Laboratory Infrastructure for Regulatory Chemical Analysis

Name/ Description of Laboratory	Location	Equipment/ Analytical Capabilities Available	Accreditation (if yes, by whom?)	Certified Good Laboratory Practice (yes/no)	Purpose

Table 8.B: Overview of Laboratory Infrastructure for Monitoring and Analysis

Name/ Description of Laboratory	Location	Equipment/ Analytical Capabilities Available	Accreditation (if yes, by whom?)	Main Purpose, and the Chemical Substances Analysed	Number of Samples/ Month (state which substance)

With respect to the laboratory infrastructure, a number of additional questions could be addressed including, for example:

- Do the laboratories utilise internationally-recognised protocols, such as the OECD Test Guidelines or those of ISO or professional bodies?
- Do the laboratories have formal quality assurance systems; are these internal programmes or external?
- Are there any national programmes to improve the quality and quantity of the output from relevant laboratories?
- Are there any programmes (formal or informal) for cooperation among countries (e.g. on a bilateral or regional basis) to share laboratory facilities or test results?

8.2 Other Relevant Areas of Technical Infrastructure

This section provides the opportunity to give an overview of other relevant technical infrastructure available in the country in relation to the sound management of chemicals.

8.3 Assessment

This section could include an analysis of the overall technical infrastructure of the country concerning chemicals management, including related capacities, gaps and needs, and could be followed by an outline of initial priorities and associated proposals for action. Consideration could be given, for example, to the following questions:

- What are the main problems and hindrances experienced in providing laboratory services in the country (e.g. financing, training, and retaining staff; equipment maintenance; availability of spare parts, reagents, and reference materials)?
- Are the needs for adequate infrastructure met through out the country? Are there regions or areas of technical infrastructure where existing infrastructure is particularly weak? How can improvements be made?
- Are there areas of chemical analysis where the country would like external laboratory support for specific activities, e.g. monitoring for dioxins or other substance where the analytical capacity does not exist in the country?
- Is the number and location of laboratories sufficient to cover national needs compared to the current situation?

Table 8.C can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 8.C: Priorities and Possible Actions: Technical Infrastructure

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 9: Chemical Emergency Preparedness, Response, and Follow-up

Purpose of Chapter 9

To provide an overview of the capacity in the country related to preparedness for, response to, and follow-up of, emergencies involving chemicals

Chapter 9 could provide information on the facilities available in the country for chemical emergency preparedness, response, and follow-up. Emergencies may arise from industrial, transport, or other incidents involving toxic substances, including waste. They may arise from accidental or deliberate contamination of food, drinking water, or consumer goods. Such contamination may involve both chemicals of made-made or natural origin. Natural disasters may also provoke chemical emergencies (e.g. earthquakes, floods, or storms destroying facilities containing toxic materials, which are released into the environment; volcanoes emitting toxic fumes). Recently several countries have experienced chemical terrorism, the potential for which is ever present. These incidents may involve many people (and animals, as well as contaminating the environment), during which emergency response facilities and health services, already strained in many countries, are put under great pressure. Furthermore, the normal communication systems, e.g. telephones, may become blocked or inoperative during an emergency, and the capacity of regular transportation systems severely reduced.

9.1 Chemical Emergency Planning

Describe briefly the existing emergency arrangements in the event of a chemical incident:

- Does the country have a chemicals emergency plan and is it part of an overall national disaster management plan?
- Which authorities have various responsibilities and how does the plan operate at regional and local levels?
- Which stakeholders are involved in the development of the plan and its implementation? For example, besides the emergency services themselves, are the following stakeholders involved: health, environment, and local authorities; industry and the transport sector; and meteorological services? Responsibilities may vary depending on whether the chemical incident is in the industrial, transport, domestic, or public health fields.
- Does the plan include regular testing under simulated conditions and are there provisions for modification of the plan based on experience of specific emergencies?

- How are the media involved and what mechanisms exist to inform the public in an emergency?
- Other questions that could be addressed in relation to preparedness include:
- Are inventories made of installations and transport routes at risk of chemical incidents? Do the fire, police, and other emergency services have specific equipment, including protective clothing, to deal with chemical incidents and are staff specifically trained for such incidents?
- Is the GHS being applied in the country? What are the chemical hazard identification systems already in place and enforced in the country, both in the transport and industrial/ commercial sectors? Do they apply to small and medium size enterprises (SMEs)?
- Is there a poisons information or other chemicals information service which is available around the clock to provide advice in a chemical emergency and are there dedicated emergency communication systems?
- Do local hospitals have patient decontamination facilities and stocks of antidotes, medicines, and appropriate equipment for chemical emergencies?
- Are the health or emergency services equipped for transportation of chemically exposed persons?
- What facilities are available for incident clean-up and for long term follow-up of exposed persons?
- What training is available to prepare the emergency services (e.g. fire, police, civil defence) personnel in dealing with a chemical incident, as well as medical and paramedical staff in handling and treating chemically exposed persons?
- Is there any training for veterinarians concerning treatment of exposed animals to toxic substances?

9.2 Chemical Incident Response

This section provides the opportunity to list (in Table 9.A) and describe some of the more significant chemical incidents that have occurred recently in the country. Add a paragraph below the table on comments and observations as well as possible lessons learned from particular incidents.

Table 9.A: Examples of Chemical Incidents in the Country

Date of Incident	Location[1]	Type of Incident[2]	Chemical(s) Involved[3]	D: Number of Deaths I: Number of Injuries E: Numbers Evacuated	Environmental Contamination or Damage[4]

1 For "Location", give the name of the place, e.g. town and the region/province.
2 "Type of Incident" could be: industrial accident/fire; transport (road, rail, waterways, air) accident, fire, spill; warehouse/storage site fire; contamination of drinking water, food, medicines, or other consumer goods; chemical misuse; natural disaster involving chemicals; terrorist attack; etc.
3 Chemicals involved could be one individual chemical (e.g. chlorine) or a group of chemicals (e.g. pesticides, PCBs); a natural occurring chemical or toxin (e.g. arsenic in drinking water, aflatoxins, toxic algae in red tide incidents), or a large mixture (e.g. in a fire, when material being burned should be given).
4 Environmental contamination or damage should be described briefly, e.g. air pollution; drinking/ground water, river, lake, sea pollution; soil contamination; destruction of plants, woodlands, commercial crops; loss of wildlife or commercial animals (cattle, sheep, goats, horses, camels, etc.).

9.3 Chemical Incident Follow-up and Evaluation

This section provides a description of the procedures taken, if any, for the follow-up of a chemical incident, both in terms of exposed persons and the environment (with rehabilitation measures), and for the evaluation so as to improve preparedness and response in the future. The following questions can be addressed:

- Is there a formal or informal mechanism in place to investigate a chemical incident and its outcome? Is there a standardised format for collecting the information about the incident? Give a brief description.
- Can the investigation lead to a formal enquiry about the causes and responsibilities of various parties involved? Can the investigation lead to a follow-up activity, e.g. an epidemiological study, a study of improved fire prevention in warehouses? Give a brief description where this has been done in the past.
- Is there a register of chemical (and other) incidents? Who has the responsibility for it? Is it kept systematically? How is an incident defined to be entered in the registry?
- Is there a follow-up surveillance and rehabilitation mechanism in the health service for exposed persons who may suffer long-term disabilities and sequelae? How is this achieved?

- Do the environmental and local authorities (or others) have the responsibility for clean-up after an incident? Is there a follow-up of any damage to the natural or physical environment? Give a brief description.

9.4 Assessment

This section could include an analysis of the country's capacity in relation to chemical emergencies, including related gaps and needs, and could be followed by an outline of initial priorities and associated proposals for action. For example, this can include consideration of needs in relation to coordination mechanisms, communication, equipment, databases and information management systems, trained human resources, health service capacity for response, environmental services clean-up capacity, mechanisms for follow-up, and rehabilitation of exposed persons. It may be that the capacity varies considerably from region to region, with good facilities in the vicinity of major towns and poor facilities in remoter regions.

Table 9.B can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 9.B: Priorities and Possible Actions: Chemical Emergency Preparedness, Response, and Follow-up

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 10: Awareness/Understanding of Workers and the Public; and Training and Education of Target Groups and Professionals

Purpose of Chapter 10

To give an overview of (i) the mechanisms available to provide information to workers and the public concerning the potential risks associated with chemicals, and (ii) the capacity for training and education of target groups affected by chemicals

This chapter could summarise legal instruments, programmes, policies, and related activities to:

- promote awareness and understanding of chemical safety issues throughout the country; and
- provide education and training for specific sectors of society concerned with the implementation of the sound management of chemicals and waste.

The summaries provided could include relevant activities of government ministries and other institutions, as well as the full range of nongovernmental organisations described in Chapter 6.

10.1 Awareness and Understanding of Chemical Safety Issues

In many countries there is still a poor appreciation of the issues concerning chemical safety and how exposure to toxic chemicals and waste may give rise to serious health impairment and degradation of the environment, which then impacts on human wellbeing and economic development. In this section, describe the activities being undertaken to:

- provide information to workers to protect their health and safety from the risks of chemicals;
- provide information to the public concerning the risks to the environment and health from chemicals, and actions which should be taken in order to protect themselves from chronic or acute exposure to hazardous chemicals in everyday life, as well as at the time of a chemical emergency;
- raise awareness and educate the public for effective participation in national environmental management initiatives (e.g. as stated in Agenda 21 or the implementation of the Stockholm Convention); as well as access to justice in environmental matters. Please cite examples of government-public participatory partnerships in environmental issues in your country;
- raise the awareness of decision-makers and legislators concerning chemical safety and encourage them to take timely action to implement sound management measures; and

- improve the understanding of communicators and the media concerning chemical safety issues and encourage them to better communicate these issues to the public in order to improve the understanding of and promote chemical safety actions by the public and civil society in general.

10.2 Education and Training for Sound Management of Chemicals and Waste

Many target groups that may be at particular risk concerning exposure to toxic chemicals could benefit from improved education that may help reduce such exposures. Among the numerous examples are: education of parents, especially mothers, in reducing the risk of children in their care to toxic chemicals; the training of agricultural workers in safe application procedures for pesticides and the wearing of protective clothing against exposures; and education of workers in cottage industries to reduce exposures to chemicals and waste and practice environmentally sound disposal/recycling of waste. Education needs to start in primary and secondary education, and continue into a variety of courses at higher education levels. Technical and administrative staff concerned with specific aspects of the sound management of chemicals and waste need to be provided with the necessary skills and on-the-job training. This section could describe, in general terms, any training and education programmes aimed at providing the technical expertise required to implement government policies and programmes related to chemicals management. This should include programmes related to disciplines such as chemistry, toxicology, environmental sciences, and environmental engineering. In this regard, consideration should be given to training and education programmes at technical schools and at the university level, as well as specific programmes available to government employees. In this section describe the activities being undertaken to:

- Develop chemical safety education in school and university curricular;
- Promote the necessary skills for administrators concerned with risk assessment and regulation in the use of available data and evidence base approaches;
- Promote skills training for a range of professional workers concerned with aspects of the sound management of chemicals, from customs workers to those handling and transporting chemicals to the users of chemicals, such as agricultural and industrial workers, and those in SMEs;
- Promote the training of health and other professionals in diagnosis and management of exposed persons;
- Promote the training of chemical emergency response professionals; and
- Promote the training of staff at technical facilities, such as laboratories, recycling, and disposal facilities.

10.3 Assessment

This section provides an opportunity to make an analysis of the country's capacity regarding public and workers awareness concerning chemical safety issues and human resource development for the sound management of chemicals in the country. It could address strengths as well as gaps and needs, and could be followed by an outline of initial priorities and associated proposals for action. Availability of trained human resources both within government and civil society is a key factor in the sound management of chemicals. It may be that the capacity varies considerably from region to region, and the reasons for this may be analysed in this section.

Table 10.A can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 10.B: Priorities and Possible Actions: Awareness/Understanding of Workers and the Public; and Training and Education of Target Groups and Professionals

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 11: International Linkages

Purpose of Chapter 11

To describe national participation and involvement in international organisations and agreements concerned with the management of chemicals and to identify opportunities for an integrated approach at the national level

11.1 Cooperation and Involvement with International Organisations, Bodies, and Agreements

In preparing this chapter reference may be made to the report of the UNITAR/IOMC Thematic Workshop on *Synergies for Capacity Building under International Agreements Addressing Chemicals and Waste Management*.[16] A recent compilation of chemicals agreements, programmes, and activities, which may also assist with this chapter, has been published by the World Bank.[17] The purpose of Tables 11.A and 11.B is to clarify the involvement of the country in international activities and agreements and to allow all concerned parties to know who has the responsibility for contacts with the related international organisations. The tables should be expanded to incorporate international activities relevant to the country.

Table 11.A: Membership in International Organisations, Programmes, and Bodies

International Organisation/ Programme/Body	National Focal Point (Ministry/Agency & Primary Contact Point) [1]	Other Ministries/ Agencies Involved	Related National Activities
UNEP			
UNEP/UNIDO National Cleaner Production Centres			
WHO			
FAO			
UNIDO			

[16] The report is available on the UNITAR website at: http://www.unitar.org/cwm

[17] The Global Pursuit of the Sound Management of Chemicals, prepared for the World Bank by John Buccini: Part I: http://siteresources.worldbank.org/INTPOPS/Publications/20486416/GlobalPursuitOfSoundManagementOfChemicals2004Pages1To67.pdf; Part II: http://siteresources.worldbank.org/INTPOPS/Publications/20486423/GlobalPursuitOfSoundManagementOfChemicals2004Pages68To83.pdf

International Organisation/ Programme/Body	National Focal Point (Ministry/Agency & Primary Contact Point) [1]	Other Ministries/ Agencies Involved	Related National Activities
ILO			
UNDP			
World Bank			
Regional Development Bank (specify)			
OECD			
UN Regional Economic Commissions (specify)			
Regional Economic Groupings (Specify)			
Other relevant Regional Arrangements e.g. SPREP			
Others			

1 This column should identify the specific office, and title of the individual, which serves as the national focal point.

Table 11.B: Participation in International Agreements/Procedures Related to Chemicals Management

International Agreements	Primary Responsible Agency [1]	Relevant National Implementation Activities [2]
SAICM		
Stockholm Convention [3]		
Rotterdam Convention [3]		
Basel Convention [3]		
Montreal Protocol [3]		
International Health Regulations (IHR) (2005)		
ILO Convention 170		
ILO Convention 174		

International Agreements	Primary Responsible Agency [1]	Relevant National Implementation Activities [2]
Chemical Weapons Convention		
FAO Code of Conduct (voluntary procedure)		
GHS		
UN Recommendations for the Transport of Dangerous Goods		
Agenda 21 - Commission for Sustainable Development		
Regional/Subregional Agreements (specify)		
Bilateral Agreements (specify)		
Others		

1 This column should identify the specific office, and title of the individual, which serves as the national focal point.
2 International agreements usually imply the need for significant national implementation activities. Therefore, complementary information should be provided for each relevant international agreement on the corresponding national activities.
3 The Designated National Authority(s) (DNA) or Focal Points of relevant conventions should be identified.

11.2 Participation in Relevant Development and Technical Assistance Projects

Table 11.C could provide an overview of all on-going and planned multilateral and bilateral assistance activities related to the management of chemicals. It should not just address projects which are specifically directed to chemicals management, but also projects related to the environment and sustainable development (e.g. concerning National Environmental Action Plans), and projects concerning, for example, agricultural and industrial development which involve the transfer of chemicals or chemical-related technology. Include technical cooperation activities with the UN agencies, such as with FAO, ILO, UNEP, UNIDO, UNITAR, WHO, and UNDP, as well as capacity building projects with GEF and bilateral donors. The resources aspects of development assistance projects are covered in Chapter 13, section 13.4. (Consideration should be given to whether the table should be completed with representatives of international/ bilateral donor agencies.)

Table 11.C: Participation as Recipient in Relevant Technical Assistance Projects

Name of Project	International/Bilateral Donor Agency Involved	National Contact Point	Relevant Activities

For each project, complementary information could be provided addressing, for example:

- the objective and scope of the project;
- the duration of the project;
- participating national organisations; and
- relevant experience gained.

In addition, this section could describe any national policies related to development assistance projects which may have an impact on the management of chemicals. Among the questions which could be addressed are, for example:

- Are there any controls or limitations on the chemicals which will be accepted as part of a development assistance project?
- Are there any procedures to facilitate coordination among development assistance projects, to help focus on priority activities, and to avoid duplication?

11.3 Assessment

This section could provide an analysis of national capabilities, including strengths, gaps and needs, to effectively link international programmes with a national strategy for the sound management of chemicals. It could be followed by an outline of initial priorities and associated proposals for action. The following questions/aspects are among those that could be addressed in preparing this section:

- Assess the degree to which national implementation activities of international agreements have been undertaken.
- How well is the work of the international organisations integrated into a comprehensive national programme?
- Is there appropriate coordination on the national level with respect to implementation of international activities and agreements in the area of chemicals management? Have synergies been developed between/among agreements in their implementation in the country? If so, describe how.
- Are there any procedures to help ensure coordination between ministries/agencies responsible for development assistance activities and those responsible for the protection of health, safety, or the environment?

- How could international agencies improve the effectiveness of their current programmes in the country? What are specific recommendations in this regard (e.g. improved coordination mechanism, better communication, redefinition of priorities, better adaptation to local conditions)?
- What are the obstacles in the country in the way of implementing international agreements? How could such obstacles be overcome?

Table 11.D can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 11.D: Priorities and Possible Actions: International Linkages

Priority Issues **(Ranked from highest to lowest)**	**Level of existing capacity** **(Low, medium, high)**	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 12: Resources Available and Needed for Chemicals Management

Purpose of Chapter 12

To provide an overview of resources available within government and nongovernmental organisations related to various aspects of chemicals management (including human and financial resources) and to analyse resource needs

While provision of resources for many aspects of sound chemicals management in countries is a government responsibility, all stakeholders need to contribute in their area. The industrial and commercial sectors make a large contribution through investment in safety measures and pollution control, as well as in the application of classification and labelling systems. Each concerned NGO contributes resources through, for example, their own awareness and training activities. In many developing countries multilateral and bilateral development assistance agencies provide additional resources for specific programmes, such as the GEF for Stockholm Convention enabling and implementation activities. This chapter is concerned, however, mainly with resources provided through and needed by government departments and institutions. Attention is drawn to the report of the UNITAR/IOMC Thematic Workshop on *Strengthening Finance Resource Mobilisation for the Sound Management of Chemicals*.[18]

12.1 Resources Available in Government Ministries / Institutions for Chemicals Management

The purpose of Table 12.A is to provide an overview of the existing resources available within government ministries, agencies, and other institutions specifically to address governmental responsibilities with respect to the sound management of chemicals. This could include information on the availability of professional personnel and particular skills, as well as financial resources. As far as possible, resource availability should be linked to specific responsibilities, e.g. risk assessment for regulation or food standards; enforcement of designated areas of legislation (such as inspection, pesticide residues in food); monitoring for health or environmental impact.

The ministries/agencies listed in the first column of the Table 12.A are provided as examples and should be adapted as appropriate. To the extent applicable, it should include regional and local agencies and institutions and also indicate the resources (human and financial) available at these levels. It may be appropriate to prepare separate tables for each class of chemicals addressed in the National Profile.

[18] The report is available on the UNITAR website at: http://www.unitar.org/cwm

Table 12.A: Resources Available in Government Ministries/Institutions

Ministry/Agency Concerned	Specific Responsibilities for which Resources are Allocated	Number of Professional Staff Involved	Type of Expertise Available	Financial Resources Available (per year)
Environment				
Health				
Agriculture				
Labour				
Trade/Commerce				
Industry				
Finance				
Transport				
Interior/Civil Defence				
Justice				
Customs				
Foreign Affairs				
Other				

12.2 Resources Needed by Government Institutions to Fulfil Responsibilities related to Chemicals Management

The purpose of Table 12.B is to provide an overview of resource needs within the national government (including government ministries, agencies, and other institutions) in order to fulfil their responsibilities for chemicals management. As with Table 12.A, resource needs should be associated with specific responsibilities or activities. The ministries/agencies listed in the first column of the table are provided as examples and should be adapted as appropriate. To the extent applicable, it should include regional and local agencies and institutions, and indicate the areas of responsibilities. It may be also appropriate to prepare separate tables for each class of chemicals addressed in the National Profile.

Table 12.B: Resources Needed by Government Institutions to Fulfil Responsibilities Related to Chemicals Management

Ministry/Agency Concerned	Specific Responsibilities for which Resources are Required	Number/Type of Professional Staff Needed	Training Requirements
Environment			
Health			
Agriculture			
Labour			

Ministry/Agency Concerned	Specific Responsibilities for which Resources are Required	Number/Type of Professional Staff Needed	Training Requirements
Trade/Commerce			
Industry			
Finance			
Transport			
Interior/Civil Defence			
Justice			
Customs			
Foreign Affairs			
Other			

12.3 Resources Available in Nongovernmental Organisations for Chemicals Management

The industrial and commercial sectors make a large contribution through investment in safety measures and pollution control, as well as in the application of classification and labelling systems. In some countries there are public-private partnerships for certain chemical safety activities. NGOs contribute resources through, for example, their own awareness and training activities. The purpose of Table 12.C is to provide an overview of resource availability within the nongovernmental community to address governmental responsibilities and other nongovernmental efforts with respect to the sound management of chemicals. This could include information on the availability of professional personnel and particular skills, as well as financial resources. As far as possible resource availability should be linked to specific responsibilities. Note should be taken of the importance of identifying these resources in relation to counterpart local funding for development assistance activities.

Table 12.C: Resources Available in Nongovernmental Organisations

Concerned Institution	Specific Responsibilities for which Resources are Allocated	Number of Professional Staff Involved	Type of Expertise Available	Financial Resources Available (per year)

12.4 Resources from Development Assistance Activities

Many developing countries and those in economic transition benefit from multilateral and bilateral assistance activities related to the management of chemicals. The projects are described in Chapter 12, section 12.2. The purpose of Table 12.D is to provide an overview of the resources available to the country through development assistance and technical cooperation with the UN agencies such as FAO, ILO, UNEP, UNIDO, UNITAR, WHO, and UNDP, as well as capacity building projects with GEF and bilateral donors. In many cases more than one funding agency may be involved.

Table 12.D: Resources Available through Development Assistance and Technical Cooperation Activities

Funding Institution(s) and International Supporting Institutions	Title of Project and its Duration (start and finish dates)	Number of Professional Staff Involved	Type of Expertise Provided	Financial Resources of Project (from Donor and from local sources)

12.5 Assessment

This section could include an analysis of the resources available and needed for chemicals management. It could address resources available within both government and nongovernmental organisations, related capacities, gaps and needs, and could be followed by an outline of initial priorities associated proposals for action. Consideration could be given, for example, to the following questions/issues:

- Analyse the strengths of various national ministries/agencies and NGOs in terms of their technical capacity to address chemicals management.
- Indicate the extent to which individual national ministries/institutions need strengthening, capacity building, and human resources training in specific areas of chemicals management. In which areas?
- What are estimates of the deficit (if any) in qualified human resources to manage chemicals safely (e.g. technicians, legal experts, customs officers, factory inspectors, clinical toxicologists, analytical toxicologists)?
- What provisions are being made within ministries to ensure sustainability of activities currently receiving development assistance resources?
- What strategy should be developed to mobilise sufficient technical and human resources to ensure the sound management of chemicals in the country?
- What is the potential for encouraging public-private partnerships, and in which areas of chemicals management?

Table 12.E can be used to provide an initial list of priorities, based on the information above, along with a summary of the existing capacities, gaps and needs, and an outline of associated proposals for action (including concerned actors). Countries are encouraged to adapt the table to meet their needs, as appropriate.

Table 12.E: Priorities and Possible Actions: Resources Available and Needed for Chemicals Management

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Chapter 13: Conclusions and Recommendations

Purpose of Chapter 13

To provide overall conclusions concerning the chemicals management situation in the country and a summary of the priorities and recommendations for action considered most important

This chapter could provide a consolidated list of the top national priorities and proposals for action considered to be of highest national importance, e.g. based on agreed criteria such as urgency of the issue, feasibility of effectively addressing the issue (including availability of resources), timeframe for achieving results, level of stakeholder interest and commitment, etc. This could be undertaken in a number of different ways, including:

- an explanation of top national priorities and proposals for action in a few succinct paragraphs of narrative text;
- grouping the issues by the level of priority (e.g. level 1 priorities, level 2 priorities); or
- preparing a table, such as Table 13.A below, adapted as appropriate.

This chapter could be prepared following formal stakeholder adoption of the National Profile (e.g. at the Final National Profile Review/Priority Setting Meeting) and reflect the agreed national priorities and actions.

Table 13.A: Top National Priorities and Possible Actions

Priority Issues (Ranked from highest to lowest)	**Level of existing capacity** (Low, medium, high)	**Summary of Capacity Strengths, Gaps, and Needs**	**Possible Action**	**Concerned Actors**

Annex 1 to the National Profile: Glossary

Since different countries utilise technical terms differently, each country should determine which terms should be defined in order to facilitate understanding of the National Profile and communication of the information contained in the Profile both within the country and for international purposes. Some of the terms which will likely need to be defined include:

Agricultural chemical:

Consumer chemical:

Formulation:

Impact assessment:

Industrial chemical:

License:

Permit:

Pesticide:

Pollution prevention:

Production:

Risk assessment:

Risk reduction:

Rural:

Trade:

Urban:

Disposal, including recycling, re-use, etc.:

Waste including hazardous waste, chemical waste, etc.:

Obsolete chemical:

Contaminated area:

Toxin:

Possible definitions that countries could consider using or adapting include the following:

Article: An object which during production is given a special shape, surface or design, which determines its function to a greater degree than does its chemical composition. Examples of articles are a car, battery, computer, telephone, printer, clothes, and refrigerator. Articles can contain liquids (e.g. car: brake fluid) and gases (e.g. refrigerator: compressed cooling gas)

Chemical good / good: A substance or a mixture/preparation or an article

Chemical identity: A name that will uniquely identify a chemical. This can be a name that is in accordance with the nomenclature systems of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS), or a technical name

Chemical product / product: A chemical substance and/or mixture/preparation of chemical substances with certain percentages or percentage ranges of the chemical substances

Chemical substance / substance: Chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition

Generic name: A name that is not specific for a chemical substance, but describes a class of chemicals. A generic name is used by industry, for example, to protect confidential business information when the identity of the chemical should not be revealed through the chemical identity

Label: An appropriate group of written, printed, or graphic information elements concerning a hazardous product, selected as relevant to the target sector(s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product

Life cycle: Life cycle of a chemical means all stages of the life of a chemical with production of the chemical, mixtures, and articles containing the chemical, storage, transport, distribution, export, import, professional use, consumer use, recycling, and waste management of the chemical, mixtures, and articles containing the chemical

Mixture / preparation: A mixture or a solution composed of two or more substances in which they do not react

Obsolete pesticides: Pesticides that cannot be used for legal or technical reasons, which may include the following:

- banned for use
- physically degraded
- chemically degraded
- ineffective as a pesticide

- expired
- not needed
- unidentified (e.g. no label or labelled in a foreign language)
- non-compliant with local regulations (e.g. wrong package)
- unsuitable formulation (e.g. cannot be used with available application equipment)

Pesticide: Any substance or mixture of substances intended for preventing, destroying, or controlling any pest. Pests include vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport, or marketing of food, agricultural commodities, wood and wood products, or animal feedstuffs. A pesticide is also any substance administered to animals for the control of insects, arachnids, or other pests in or on their bodies or substances intended for use as a plant growth regulator, defoliant, desiccant, or agent for thinning fruit or preventing the premature fall of fruit. The term can also be used for substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport

Stockpiles: A reserve of a chemical as a substance and/or preparation, and/or of articles containing the chemical accumulated within a country that still can be used

Trade name: A name that is given to a chemical, a mixture or an article by the company that markets/ supplies it. The trade name normally specifically identifies the chemical, mixture, or article and sometimes gives information on the company

Trivial or common name: A name that is given to a chemical to be able to communicate more easily, especially with the public, than through the often complicated systematic chemical name

Waste: Substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law

Annex 2 to the National Profile: Available National Reports and Papers Addressing Various Aspects of Chemicals Management

Annex 3 to the National Profile: Names and Addresses of Key Individuals and Organisations

Annex 4 to the National Profile: Identifying Key Actors for the Work Areas Listed in Table A of the SAICM Global Plan of Action

SAICM's Global Plan of Action (GPA) lists possible work areas and their associated activities, actors, targets and timeframes, indicators of progress, and implementation aspects that may be undertaken voluntarily by stakeholders in order to pursue the commitments and objectives expressed in the Dubai Declaration on International Chemicals Management and the Overarching Policy Strategy. "Table A" of the GPA provides a summary list of the work areas and the numbers of the possible activities associated with them. As a starting point for preparing/updating the National Profile, becoming familiar with SAICM, and taking stock of the main stakeholders and their roles and responsibilities, many countries have found it useful during the National Planning Meeting to prepare the table below (which is based on Table A of the GPA).

Work Area	Activity	Lead Agency / Stakeholder	Other Participating Agencies / Stakeholders
1. Assessment of national chemicals management to identify gaps and prioritize actions	1, 165, 207		
2. Human health protection	2-6		
3. Children and chemical safety	7-10, 150-153, 245-246		
4. Occupational health and safety	11-21, 138-149, 255		
5. Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	22, 99-101, 168, 248-250		
6. Highly toxic pesticides risk – management and reduction	23-30, 114-117		
7. Pesticide programmes	31		
8. Reduced health and environmental risks of pesticides	32-42		
9. Cleaner production	43-46, 118, 238-242		
10. Remediation of contaminated sites	47-48, 243		
11. Lead in gasoline	49, 156, 244		
12. Sound agricultural practices	50-53, 158-160		
13. Persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, inter alia, the reproductive, endocrine, immune or nervous systems; persistent organic pollutants (POPs)	54-56		

Work Area	Activity	Lead Agency / Stakeholder	Other Participating Agencies / Stakeholders
14. Mercury and other chemicals of global concern; chemicals produced or used in high volumes; chemicals subject to wide dispersive uses; and other chemicals of concern at the national level	57-60, 157		
15. Risk assessment, management and communication	61-67, 127-137, 247		
16. Waste management (and minimization)	68-73, 161-162, 258-262, 272-273		
17. Formulation of prevention and response measures to mitigate environmental and health impacts of emergencies involving chemicals	74-79, 237		
18. Research, monitoring and data	80-87		
19. Hazard data generation and availability	88-97		
20. Promotion of industry participation and responsibility	98, 189-192		
21. Information management and dissemination	102-113, 256		
22. Life cycle	119-123		
23. Pollutant release and transfer register (PRTRs) – creation of national and international registers	124-126, 177-180		
24. Education and training (public awareness)	154-155		
25. Stakeholder participation	163-164		
26. Implementation of integrated National programmes for the sound management of chemicals at the national level in a flexible manner	166-167		
27. International agreements	169-176		
28. Social and economic considerations	181-188, 257		
29. Legal, policy and institutional aspects	193-198		
30. Liability and compensation	199		
31. Stock-taking on progress	200-201		
32. Protected areas	202-203, 253-254		
33. Prevention of illegal traffic in toxic and dangerous goods	204, 263-271		
34. Trade and environment	205, 251-252		
35. Civil society and public interest non-governmental organization (NGO) participation	206		
36. Capacity-building to support national actions	208-236		

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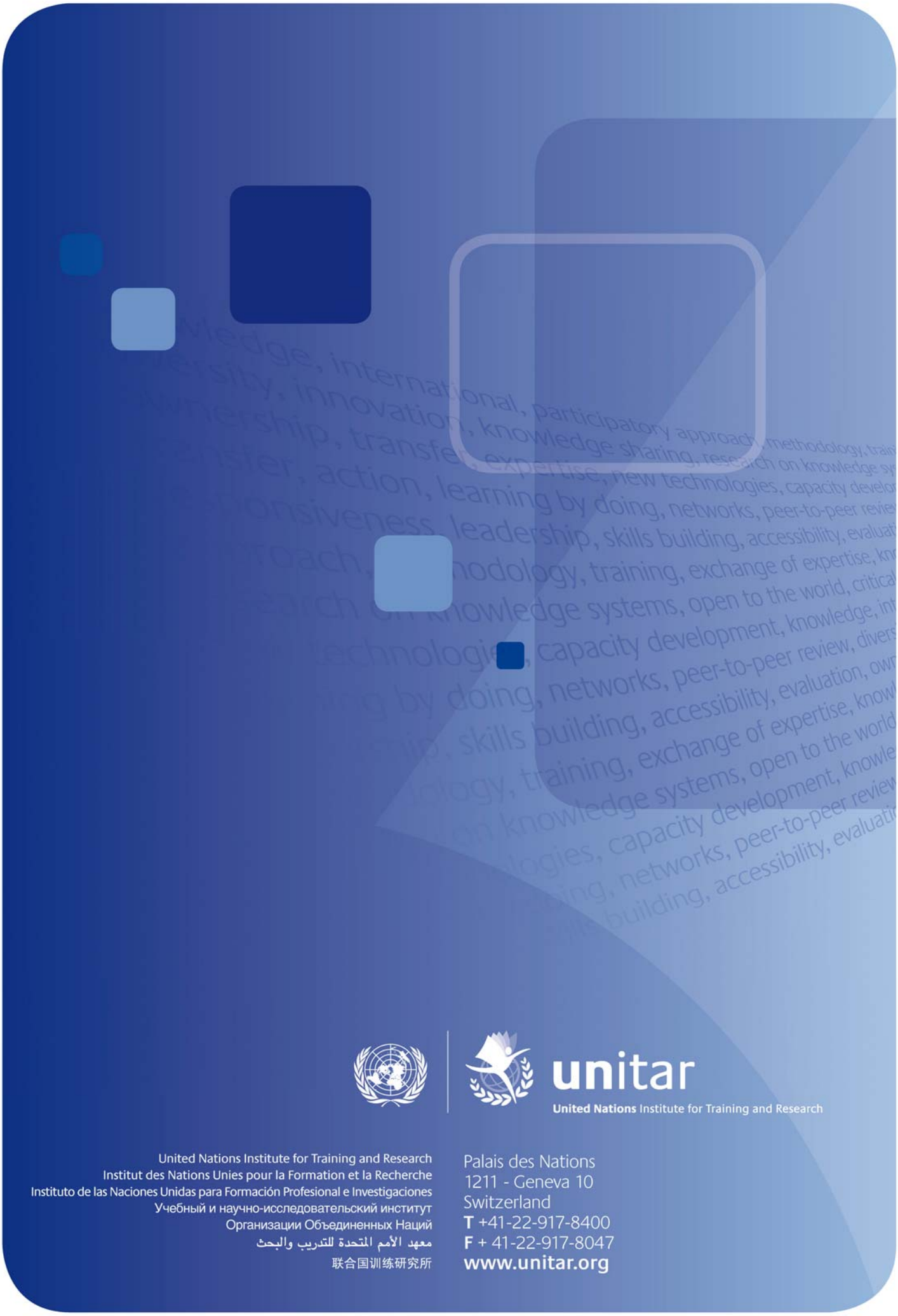

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