AN INTEGRATED APPROACH TO SOUND MANAGEMENT OF CHEMICALS AND WASTE

Initiation of Implementation of SAICM in Slovenia
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Initiation of Implementation of SAICM in Slovenia
Slovenia is a fairly young European Union (EU) member state, however it has made great strides as far as developing chemical safety is concerned. Slovenia took first steps in developing chemical safety already in the framework of the former Socialistic Federal Republic of Yugoslavia (SFRY) by having its experts participate in the then Federal Commission for Toxins. In addition to relevant rules applied across SFRY, Slovenia also had its own rules in place when it came to toxic substances and plant protection products. After gaining independence in 1991, Slovenia made full use of the expertise accumulated in the then SFRY to start setting up a modern approach toward chemical safety based on a fresh impetus and associations with some other EU member states, through OECD and its efforts to join the EU. Slovenia's initial level of chemical safety development was similar to that of some developing countries and countries with economies in transition. Today, Slovenia would be happy if its experiences gained in the course of building up chemical safety could benefit other countries as well. There were a number of countries and international organisations that made a significant contribution to Slovenia's aim to develop chemical safety. Switzerland featured prominently in Slovenia's efforts to develop good laboratory practices, while Germany and Sweden helped Slovenia in drafting its new chemical legislation. Over a number of years, Austria and Slovenia have worked closely together in a twinning programme, tackling the most important topics that had been earlier identified through broad
discussions among relevant line ministries and other stakeholders. The Netherlands, together with its relevant institutions such as RIVM Public Health Institute, also left its imprint on the development of chemical safety in Slovenia by first providing education on risk assessment, and later by participating in the Twinning Programme aimed at setting up evaluation of biocidal products. Long-term cooperation with United Nations Institute for Training and Research (UNITAR) has also played a special role in these efforts, as it first led to the preparation of the national profile in 1997 and later to other important activities, which have subsequently resulted in this brochure.

This brochure illustrates state of the play of chemical safety in Slovenia by showing Slovenia’s endeavours from its 1991 independence onwards. Slovenia soon realised that the complete life cycle of chemicals should be managed and that chemicals were not only harmful for the environment but also to human health. This is why the Government of the Republic of Slovenia in 1996 set up the Intersectoral Committee for Dangerous Substances (subsequently named the Intersectoral Committee for Chemical Safety), and within the Ministry of Health the National Chemicals Bureau in 1999 (today named Chemicals Office of the Republic of Slovenia) charged with providing chemical safety in Slovenia. The Committee has been mainly tasked to draft and update the National Chemical Safety Programme that took almost 10 years for completion and to be finally adopted by the National Assembly in 2006 covering the period between 2006 and 2010. In parallel and in some cases prior to these efforts there were also other national programmes related to other phases of chemicals’ life cycle being drafted by other relevant line ministries. Such national programmes, inter alia, also govern some aspects of chemicals and refer to the National Chemical Safety Programme. The recent development is the conversion of the Committee into the coordination authority for the Strategic Approach to International Chemicals Management (SAICM) implementation in Slovenia, the adoption of SAICM Implementation Action Plan and designating the National Chemicals Bureau as an authority responsible for coordinating SAICM implementation and reporting on progress achieved prior to meetings of the International Conference on Chemicals Management (ICCM) based on the decisions of the Government of the Republic of Slovenia.
It is also of great importance that chemical safety has been incorporated into the Resolution on National Plan of Health Care adopted by the National Assembly in 2008, and that chemical safety is part and parcel of each Consumer Protection Programme. In doing so, chemical safety has been mainstreamed into various development programmes, however there is still room for improvement. What is more, it is also important that each programme while still in the pipeline be examined for its possible consequences regarding chemical safety. This endeavour requires an active role by the National Chemicals Bureau and good intersectoral cooperation.

It goes without saying that little headway would have been made if there had not been for sufficient political willpower. This willpower was first manifested in the establishment of the Intersectoral Committee for Chemical Safety in 1996. Setting up such a mechanism required courage. This courage had to be first of all mustered up by officials and experts familiar with chemical safety in Slovenia and beyond. What is more, they had to be insistent enough to push this issue high up the political agenda to be addressed by relevant state secretaries and finally by ministers. Further, a body of like-minded professional and political opinion had to be assembled, and then the right persons had to be employed to responsible posts to promote chemical safety. Without having the right people in the right places there is no way forward. One of the key lessons that Slovenia learnt in the course of promoting chemical safety is that making great strides calls for major political willpower, the right people in the right places and tolerant and transparent communication and cooperation among relevant governmental and nongovernmental stakeholders.

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Executive Summary

The Republic of Slovenia became independent in 1991 as preparations for the United Nations Conference on Environment and Development were advancing in proposing the establishment of an intergovernmental mechanism for chemicals risk assessment and management, subsequently adopted at the Earth Summit in 1992 in the chemicals chapter 19 of Agenda 21. At the same time Slovenia aspired to become a member of European Community, with the consequent need to meet the necessary administrative and legal requirements. Slovenia's initial level of chemical safety development was similar to that of some developing countries and countries with economies in transition. Some regulations for control of chemicals and plant protection products were in place and there was a body of local expertise on which to build activities.

The conjuncture of circumstances provided the opportunity for taking bold and innovative actions, enabling Slovenia to initiate activities to develop an integrated programme for sound management of chemicals through a life cycle approach. Slovenia recognised the essential role of chemicals in the development process, involving nearly all economic and social sectors, as well as the potential negative impacts on human health and the environment if chemicals were not managed properly. The need for a multi-sectoral approach, which considered the use of chemicals in the Slovene society in a holistic way, was embraced, and the decision taken to establish
a National Chemical Safety Programme of the Republic of Slovenia, with the necessary administrative infrastructure for its implementation. Slovenia was able to benefit from the long standing experience of the International Community in the field of chemical safety, and to launch activities to develop an integrated programme for sound management of chemicals through a life cycle approach. The initial activities involved making a comprehensive assessment of the national infrastructure and capacity, relating to the legal, institutional, administrative and technical aspects of chemicals management, along with an understanding of the nature and extent of chemicals availability and use throughout their life cycle in the country. These activities highlighted the need to involve all stakeholders and a governmental decision established an inter-sectoral governmental coordinating mechanism for chemical safety during the period of preparing the National Chemical Safety Programme with its legal mandate. Subsequently The Chemicals Act promulgating the Programme also established the administrative infrastructure for implementing the Programme through a NCB in an existing Ministry (Ministry of Health) and legally formalised the inter-sectoral coordinating mechanism. On the basis of these initial activities a National Chemical Safety Programme (NCSP), with specific priorities and timeframes for action by designated stakeholders, was adopted by the Parliament in 2006. Six national priority areas were chosen for action: (a) integrated chemical safety legislation; (b) integrated inspection for chemical safety; (c) safety and health at work with chemicals; (d) management of waste chemicals; (e) chemical accidents; and (f) integrated chemicals monitoring.

It was recognised that chemical safety issues relating to particular fields where chemicals and waste are being employed can only be resolved by introducing changes in the concerned sectors, such as agriculture, industry and transport. Due to the complexity of problems concerning chemicals, each of these other relevant Slovene national programmes need to be more or less strengthened as regards to chemical safety. They generally comprise basic guidelines and directions for coordinating economic, technical, scientific, educational, organizational and other measures, as well as measures, including those for the implementation of international obligations. Some Slovene national programmes are more directly concerned with chemicals than others, but nevertheless all of them include at least a brief
description of chemical risks, hazards in fields that are associated with a concerned national programme. These programmes are: the National Environmental Action Programme, National Programme for the Protection against Natural and Other Disasters, National Health Protection Programme, Agri-Environmental Programme, and National Programme for Safety and Health at Work. Besides these it is important to take into consideration also the National Security Strategy of the Republic of Slovenia. Some other national programmes are relevant in a secondary sense. These programmes are: the National Programme on the Road Traffic Safety, the National Motorway Construction Programme, the National Programme of Slovenian Railway Infrastructure Development, the National Research Programme, the National Programme for Higher Education, and the National Programme of Consumer Protection. The NCSP supplements these programmes, providing guidelines, priorities and strategies in cases of chemical safety issues.

The NCSP takes into consideration different perspectives from which chemicals can cause direct or indirect effects on people, animals, plants, on property and the wider environment. Besides already implemented national obligations in the field of chemical safety, NCSP considers also international instruments and initiatives. In this regard it derives from existing, established principles and requirements of related UN, EU and OECD multi-lateral agreements and to those of subordinate organizations, specialized agencies and programmes.

Ministers of Health and Environment were signatories for the Republic of Slovenia of the Strategic Approach to International Chemicals Management (SAICM), adopted at the first meeting of the International Conference on Chemicals Management (Dubai, February 2006). Each of the SAICM 273 activities of the Global Plan of Action were examined as to their relevance for the situation in Slovenia and revised priorities and timelines were established and will be incorporated into the forthcoming National Programme for the years beyond 2010, an agreement for which has been reached through the Intersectoral Committee for Chemical Safety. It assigned responsibilities for implementation of different activities from the SAICM Global Plan of Action to various stakeholders. The Government of the Republic of Slovenia adopted this plan in February 2008, designating
the NCB of the Republic of Slovenia to coordinate the implementation of SAICM in Slovenia and requiring all stakeholders, within their areas of competence and responsibilities and in accordance with their financial and resource constraints, to report progress for submission to the International Conference on Chemicals Management.

In view of the difficulties in obtaining a full NGO sector participation in the Programme, the NCB established a “platform” where NGOs could meet regularly and discuss and prepare contributions to the Programme, as well as their own roles in implementing SAICM.

Little headway would have been made if there had not been for sufficient political will, first to establish the Intersectoral Committee for Chemical Safety in 1996, then to push the issue of chemical safety high up the political agenda. Further, a body of like-minded professional and political opinion had to be assembled, and then the right persons had to be employed to responsible posts to promote chemical safety. One of the key lessons that Slovenia learnt in the course of promoting chemical safety is that making great strides calls for major political will power, the right people in the right places and tolerant and transparent communication and cooperation among relevant governmental and nongovernmental stakeholders.

The Republic of Slovenia has made a huge step forward when it comes to chemical safety by adopting the National Chemical Safety Programme and Action Plan for SAICM Implementation and by adopting the EU Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Furthermore, another action plan is under preparation concerning children in relation to chemical safety. As to chemicals impact on the environment, annual bio monitoring has been put into place, and scientific developments will be followed closely, as well as studies aimed at identifying any harmful consequences of chemicals on human health and the environment. What is more, appropriate records will be set up and kept on causalities between certain chemicals and certain diseases.

All actors (producers, legal entities and individuals placing chemicals on the market, users and consumers) have been encouraged to be involved in sound management of chemicals. Important activities increasing chemical
safety in Slovenia are as follows: strengthening public awareness about chemicals, introduction of chemical safety in most curricula at all levels of education and establishing study programmes related to chemical safety.

Despite chemical safety being globally introduced into healthcare and environmental protection, Slovenia still is seeing a need to play an active role in improving regional and global chemical safety, taking into consideration the interdependence of health and the environment, and the fact that leading a healthy life can only be done in a healthy environment, and therefore problems related to health and the environment need be addressed in a harmonised manner.

Lessons from which other countries developing chemicals management programmes for implementation of SAICM might benefit based on the experience of Slovenia are (for more detail on the lessons learned see in Section “Conclusions”):

(a) Make a good assessment of the situation in the country following a broad based life cycle approach to chemicals and waste (prepare a National Profile).

(b) Already in the initial phase of the development process a formal multi-stakeholder platform or mechanism should be established by an act at high political level, acting as a forum for discussions, steering/monitoring and coordination of the multi-sectoral process.

(c) On the basis of the assessment made through the National Profile, and of a multi-stakeholder examination of the SAICM Global Plan of Action as to its relevance for the situation in the country, prepare an integrated national chemicals safety programme for the implementation of SAICM.

(d) Establish a legal basis for the adoption of the National Programme, including an administrative infrastructure with budget for its implementation.

(e) Slovenia found two hindrances to getting full involvement of non-governmental partners. First, the larger scale commercial industrial
and agro-pastoral sectors are usually well represented through their trade associations and chambers of commerce, but small and medium sized enterprises, family business and cottage industries are difficult to involve collectively. Information from the SMEs was left to the Associations to cover; but there may be other ways to involve them. Further, the informal sector (black economy) is rarely covered. Secondly, the public interest and professional NGOs are often not well organised to be involved collectively.

(f) All stakeholders should be encouraged to take part in their respective international forum and, as appropriate, regional organisations, in order to present the views of their institution and that of the country and promote implementation of SAICM.

(g) Special attention is needed to ensure that stakeholders responsible for specific chemicals-related Multilateral Agreements, to which the country is a signatory, report regularly to the Coordinating Mechanism and consult with the SAICM implementing institution concerning relevant issues.

(h) Local levels of government and citizens action groups, with other partners, can play an important role in implementing certain SAICM activities, such as in relation to remedial action for contaminated sites.

(i) Awareness rising, public communication and education should be an integral part of the programme for all the stakeholders.

(j) Resource mobilisation is an important component for effective implementation of SAICM activities and all stakeholders should be expected to have their own local regular budgets, as well as be involved in extra-budgetary fund raising for SAICM related activities.

(k) All stakeholders should be required to report regularly to the coordinating body on progress in implementing their SAICM related activities; and also be involved in regular monitoring.

(l) Considering the usual fluctuations in personnel at all levels in any
organisation, attention needs to be given in each stakeholder body to ensuring stability and continuity of efforts both at the level of the activities and work to implement the national chemical safety programme and at the level of the formal coordinating mechanism.

(m) Focus in the development and implementation process should be concentrated on a few activities from the SAICM Global Plan of Action which have been identified as a national priority.

(n) Effective indicators of progress need to be developed for each of the main priority activities in order to follow their timely implementation.
The Republic of Slovenia is a country with 2 million inhabitants living on 20,273 km$^2$. It was part of the former Yugoslavia and became independent in June 1991. It subsequently joined the European Union in May 2004. It has been an Observer country of the Organisation for Economic Co-operation and Development (OECD) since March 1996 and is expected to become a full Member Country in 2010. Slovenia became the first 2004 European Union entrant to adopt the Euro on 1 January 2007. It is regarded as a model of economic success and stability for the region. In May 2007 the OECD invited Slovenia to become a member.

ECONOMIC AND SOCIAL SITUATION OF SLOVENIA

With the highest per capita GDP in Central Europe ($25,755), Slovenia has excellent infrastructure, a well-educated work force, and a strategic location between the Balkans and Western Europe. In June 2008, the registered unemployment rate in Slovenia was 6.4 %.\(^1\) Real GDP growth rate in 2007 was 6.1 % but it declined in 2008 and is expected to drop further. The service sector represents approximately 63 % of GDP with main activities being retail, transportation, communications, real estate and other business activities. Slovenia’s economy is highly dependent on foreign

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trade. About two-thirds of Slovenia's trade is with the EU. Slovenian major trading partners are Germany, Italy, Croatia, Austria, France, and Russia. Exports in 2007 amounted to 22.3 billion EUR, machinery, transportation equipment, manufactured articles and chemical products being the most important exports. In 2007 mainly machinery, transportation equipment, manufactured articles, mineral fuels and lubricants were imported with a value of 24.6 billion EUR.2

Due to its macroeconomic stability, favourable foreign debt position, and successful accession to the EU, Slovenia consistently receives the highest credit rating of all transition economies. Despite its economic success, foreign direct investment in Slovenia has lagged behind the average for the region, and taxes remain relatively high. Furthermore, the labour market is often seen as inflexible, and legacy industries are losing sales to more competitive firms in China, India, and elsewhere. Slovenia is also vulnerable to high deficit in pension accounts, fluctuations in Western export markets, and inflation concerns. It is also facing an aging population with a rate of natural increase of 0.4%.3

OVERALL SOCIO-ECONOMIC DEVELOPMENT POLICY
OBJECTIVES: BASIC PRINCIPLES AND
OVERALL TIMEFRAMES

Slovenia's Development Strategy4 is the main policy paper setting out the economic and social goals and principles for Slovenian development. Welfare of the individual is stated as the primary goal of the new Strategy. Therefore, the document deals not only with economic issues but also horizontally includes social, environmental, health, political, legal and cultural issues. This close integration of various diverse issues in one

3 Birth rate \(b\) – death rate \(d\) = rate of natural increase \(r\)
single strategy is based on the principles of sustainable development.\textsuperscript{5}

Slovenia has defined four long term strategic goals that the present as well as future strategies will try to achieve. The four following goals deal with interlinked areas addressing the individual’s as well as state welfare, to:

- Exceed the average level of the EU’s economic development within 10 years (economic goal);
- Increase the quality of living and the welfare of all individuals (social goal);
- Enforce the principle of sustainability as the basic quality principle in all areas of development (intergenerational principle);
- Use its development pattern, cultural identity and international efforts to become recognisable and respected state around the world (goal in the area of international relations).\textsuperscript{6}

In order to achieve these goals Slovenia has recognised the need for fundamental structural reforms of the economy. It has decided to use a combination of various European liberal economic models, adapted to Slovenian needs and realised within the framework of the EU. The new Slovenian social developmental model includes: deregulation and liberalisation of markets, promoting the creation and growth of enterprises, a more flexible labour market, refocusing on individual needs and responsibility, decentralisation and public-private partnerships and focus on sustainable development.

In order to achieve the four strategic goals of the development, the Strategy sets out key national development objectives for the period 2006–2013 to:

- Increase the welfare and the quality of life for all individuals;
- Enhance opportunities of every person for a long, healthy and active life


\textsuperscript{6} Slovenia’s Development Strategy (2005), p. 7, see footnote No. 4
through investments in learning, education, culture and living conditions;
• Create a more dynamic and flexible society capable to respond to demands of globalisation;
• Sustain an increase of economic growth and employment based on the principle of sustainable development and the preservation of economic, social and environmental balance;
• Increase Slovenia’s global competitiveness by stimulating innovation and entrepreneurship, the spread of information communication equipment and investment in Research and Development;
• Improve state efficiency and reduce its involvement in the economy;
• Decrease social risks for the most vulnerable social groups, reduce poverty and social exclusion;
• Create conditions for sustainable population growth;
• Pursue sustainable environmental and spatial development;
• Increase all forms of security, respect human rights, prevent discrimination and actively ensure equal opportunities.

DEVELOPMENT OF CHEMICAL SAFETY IN THE NEW SLOVENIA

Following the adoption in 1992 by the United Nations Conference on Environment and Development of Agenda 21 and in response to Chapter 19, Slovenia initiated its activities to strengthen chemical safety. A Chemicals Act covering the broad life cycle integrated approach to chemicals management was drafted and subsequently adopted by the government in May 1999. The process already highlighted the need for involving all stakeholders and an inter-sectoral governmental coordinating mechanism for chemical safety was set up in 1996 on the basis of a governmental decision. Through the Chemicals Act the National Chemicals Bureau (NCB) was established in the Ministry of Health in August 1999 and the Inter-Ministerial Committee for Chemical Safety (ICCS) obtained its legal basis. The process for accession to the European Union (EU) officially began in March 1998 and, as part of this process, Slovenia undertook a systematic review of its legislation and procedures in order to align them with EU require-

7 Now called The Chemicals Office of the Republic of Slovenia (CORS)
ments (*Acquis Communautaire*). Subsequently, the National Chemical Safety Programme with Action Plans for Priority Areas, providing a strategic policy document for the period 2006 to 2010, was prepared. The EU provided financial support through Phare projects. Further, Slovenia acted as one of a number of pilot countries for the UNITAR/IOMC\(^8\) Programme to Assist Countries in Implementing National Action Programmes for Integrated Chemicals Management, which supported countries in implementing a formal national process to systematically address priority issues of national chemicals management, building on the National Profile Process and National Priority Setting Activities. The National Chemical Safety Programme with Action Plans for Priority Areas Between 2006-2010, which identifies six areas, was adopted by the Parliament of Slovenia in 2006\(^9\). It is recognised that while a major effort is being made, implementation of the Programme will require considerable work by all stakeholders if the objectives of the six priority areas are to be realised.

Ministers of Health and Environment were signatories for the Republic of Slovenia of the Strategic Approach to International Chemicals Management (SAICM), adopted at the first meeting of the International Conference on Chemicals Management held in Dubai, United Arab Emirates, in February 2006. An action plan for implementation of SAICM in Slovenia was drawn up by NCB and an agreement for it has been reached through Intersectoral committee for chemical safety. It assigned responsibilities for

\(^8\) The United Nations Institute for Training and Research (UNITAR) is a member of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC). The seven Participating Organizations (POs) of the IOMC are:
- the Food and Agriculture Organization of the United Nations (FAO)
- the International Labour Organization (ILO)
- the Organisation for Economic Co-operation and Development (OECD)
- the United Nations Environment Programme (UNEP)
- the United Nations Industrial Development Organization (UNIDO)
- the United Nations Institute for Training and Research (UNITAR)
- the World Health Organization (WHO)

In addition, two observer organizations are also participating in the IOMC:
- United Nations Development Programme (UNDP)
- World Bank

implementation of different activities from the SAICM Global Plan of Action to various stakeholders; The Government of the Republic of Slovenia adopted this plan in February 2008\textsuperscript{10}. The Government imposed on competent ministries an obligation to set the order of task performance within their competence and develop detailed action plans for their implementation in accordance with the available personnel and financial resources. The competent ministries are required to report to NCB on the implementation of action plans by individual SAICM reference periods (2009, 2012, 2015 and 2020).

It was considered that the experience of Slovenia in developing an integrated approach to chemical safety could be of benefit to other countries, not only those seeking accession to the EU, but also developing countries and those with economies in transition seeking to implement sound management of chemicals and waste in the context of SAICM. This current document aims to provide a summary of the Slovene experience as it initiates the implementation of an integrated approach to sound management of chemicals and waste in compliance with SAICM, and particularly in its engagement of all stakeholders in the process. Prepared during 2008, it endeavours to describe briefly the background of the preparation of the National Programme and its content, as well as the current national programmes and policy areas of stakeholders relating to sound management of chemicals and waste. The document is meant to provide a snap shot of how a country, having adopted a national chemicals safety programme, is implementing SAICM, ensuring an integrated approach involving relevant stakeholders. Priorities and activities may be anticipated to evolve with experience and developing situations, and this document is prepared as an example of one country’s approach to implementing SAICM.

This document “An Integrated Approach to Sound Management of Chemicals and Waste: Initiation of Implementation of SAICM in Slovenia”, incorporates material prepared originally for a manual on chemical safety and that on chemicals and waste related national programmes and policy

\textsuperscript{10} Government Decision 18400-1/2008/4 from February 2008, see also www.uk.gov.si/en/ in section “legislation and documents” subsection “strategic documents”
areas in implementing the SAICM goals in Slovenia. The document has: a “Preface” with an introductory Part 1, “Background and General Considerations” describing the international concepts of “chemical safety” and its implementation through sound management of chemicals and waste; a Part 2, describing the development of “The National Chemical Safety Programme of the Republic of Slovenia” as a response to Rio Declaration and Agenda 21 in relation to environmentally sound management of chemicals and how it relates to other national programmes in Slovenia; a Part 3 on “Implementation of SAICM in the Republic of Slovenia” and how the programmes and coordinating mechanisms established for environmentally sound management of chemicals are now reflected in the goals for sustainable development through the implementation of SAICM; and a brief concluding section. Annexes give a table of the “Multilateral Agreements” concerning chemicals and waste to which Slovenia is a signatory; the “Exhibit on Chemicals in Everyday Life” as an example of a public awareness campaign; and a glossary of abbreviations used and “Acknowledgements”.
Whilst recognising the importance of chemicals in the economic development process, for over half of a century there has been growing international concern about the adverse effects of chemicals, particularly in relation to their misuse or unintended occurrence both in the workplace and as pollutants in the environment. As a consequence, the international community has addressed the issue of health and environmental effects of chemicals in number of fora. In addition to actions by individual governments, initiatives were established not only by a variety of inter-governmental organisations (IGOs), but also by the scientific community, professional bodies, the commercial sector, worker’s associations and public sector groups of civil society. These have been directed towards the management, and reduction, of the potential risks posed to human health and the environment by chemicals, for which it was recognised that international co-operation would be essential.

The United Nations through its Stockholm Conference on the Human Environment in 1972 promoted an international approach to chemical risk assessment and management, consolidating earlier initiatives. The concept

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11 Adapted from the UNITAR/IOMC Guidance Document “Preparing a National Profile to Assess the National Infrastructure for Management of Chemicals”, particularly the section relating to International and National Policy Frameworks for the Sound management of Chemicals
of sustainable development and the relationships between environment and development further evolved in the following two decades and the Rio Conference in 1992 established, through its Agenda 21, a global commitment to an international strategy for sound management of chemicals. The Conference further adopted proposals for an intergovernmental mechanism for chemical risk assessment and management, which as such was not implemented, although enhanced coordination among international organisations (Inter-Organization Programme for the Sound Management of Chemicals, IOMC), and the establishment of an intergovernmental forum on chemical safety (Intergovernmental Forum on Chemical safety, IFCS) were. Moreover, Agenda 21 recognised that the use of chemicals and their effects influence a variety of sectors of society in relation to the development process.

The decade following the Rio Earth Summit saw a considerable quickening in the pace of chemical safety activities worldwide, with a great number of countries initiating their own programmes; the development of a number of international instruments for risk reduction; improved international co-ordination; an increasing involvement of the private sector and civil society, with a recognition of the need for good governance; an enhanced awareness of larger segments of society in the need for sound management of chemicals; and a concern about security, particularly in relation to chemical terrorism and chemical weapons. Further, the “Five years after Rio” summit made modifications to Agenda 21 adding new dimensions to sustainable development such as responsibility for chemicals through their life cycle, sustainable consumption patterns and promoting energy and materials efficiency. Subsequently, the Johannesburg World Summit on Sustainable Development in 2002 renewed commitment to Agenda 21 regarding the sound management of chemicals throughout their life cycle and noted its importance for sustainable development and for the protection of human health and the environment. In order to promote the integration of

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13 IOMC - www.who.int/iomc/en/
14 IFCS - www.who.int/ifcs/en/
international efforts, The Strategic Approach to the International Chemical Management (SAICM) was adopted at the International Conference on Chemicals Management held in Dubai in 2006\(^1\), providing a policy framework to guide efforts to achieve the Johannesburg goal that, by 2020, chemicals will be produced and used in ways that minimize significant adverse impacts on the environment and human health. SAICM acknowledges the essential contribution made by chemicals to modern societies and economies while at the same time recognizing the potential threat to sustainable development if chemicals are not managed soundly. The scope of SAICM includes environmental, economic, social, health and labour aspects of chemical safety; agricultural and industrial chemicals, with a view to promoting sustainable development and covering chemicals at all stages of their life-cycle, including products. SAICM expresses political commitment through the Dubai Declaration, and lays out an Overarching Policy Strategy, with objectives directed towards: risk reduction; knowledge and information; governance; capacity-building and technical cooperation; and illegal international traffic. A Global Plan of Action, currently consisting of 273 activities, provides guidance in implementing SAICM by relevant stakeholders, as may be applicable. In implementing SAICM both at the national and international levels the importance is recognised of building upon existing programmes and activities in a multi-sector and broad stakeholder context.

**DEFINITION OF CHEMICAL SAFETY**

Over two decades ago The International Programme on Chemical Safety (IPCS) (United Nations Environment Programme (UNEP) - International Labour Organisation (ILO) – World Health Organisation (WHO)) defined chemical safety as "the prevention and management of the adverse effects, both short- and long-term, to humans and the environment from the production, storage, transportation, use and disposal of chemicals". In many countries there is no explicit definition of chemical safety in the National Legislation regarding chemicals. However, often it can be inferred from the provisions of legislation that the notion of chemicals safety covers a wide range of stages in the life-cycle of chemicals, including their disposal. Each country

\(^1\) www.saicm.org
will need a legislative framework for chemical safety and appropriate legislation should designate the responsibility to ensure that chemical safety is imposed on all those engaged in production of and trade with chemicals, their use, handling and ultimate disposal. The legislation should describe the various obligations of different stakeholders and designate competent authorities to assure chemical safety and to exercise professional, developmental, administrative, supervisory and other tasks consistent with good governance.

DEFINITION OF CHEMICALS AND WASTE

For purposes of implementing chemical safety each country will have to define what will be covered under sound management of chemicals and waste. The term “chemical” may be 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 for example in food, biota, and consumer goods. Besides being constituents of commercial chemical products, a large number of chemicals are found as components in manufactured articles ranging from motor vehicles, household appliances and furniture, electronic equipment to consumer goods. 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. Physical form and particle size of chemicals may also affect health and environmental impact. Each country will need to decide which classes of chemicals should be covered and which should be exempted. 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. In this regard
it was decided that SAICM would not cover products to the extent that
the health and environmental aspects of the safety of the chemicals and
products are regulated by a domestic food or pharmaceutical authority or
arrangement.

CHEMICAL LIFE-CYCLE MANAGEMENT

In many countries, current chemicals management systems are based
on a sectoral approach and are media specific (e.g. addressing separately
air, water, and land). Individual stages of the chemical life cycle are con-
trolled without adequate consideration of possible linkages and opportuni-
ties for an integrated approach. This has often led to inadvertent substitu-
tion of one problem for another one (e.g. end-of-the-pipe water pollution
control leading to an increased amount of waste sludge, which needs to be
burned or deposited on land). Furthermore, there are the issues of misuse
and diversion of chemicals, both of man-made and natural origin, from
their intended use, as well as the potential for chemical accidents at all
stages of the life cycle. Consequently in each country there is a need to de-
velop integrated activities which cover and link all aspects of chemical life
cycle management, including production, import, export, storage, trans-
port, distribution, use, unintended occurrence and disposal of chemicals.
Further, it is recognised that all concerned parties need to be engaged in
the implementing chemical safety in a country.

While recognizing the considerable benefits of chemicals it cannot be
ignored that many of these chemicals may, especially when misused or
mismanaged, endanger human health and poison the environment. Chem-
ical pollution of rivers endangers underground water and water springs;
hazardous substances in the soil can endanger harvests and consequently
human health and the environment; uncontrolled disposal of large quanti-
ties of waste also threatens human health and the environment - these and
many other problems may severely reduce the quality of life and hinder a
country’s overall development. Problems of implementing chemical safety
in a country need to be addressed by taking into account various related
fields, including the environment itself, economic development, and the
development of science and technology, as ensuring the involvement of all
concerned parties.
A number of obstacles may exist to implementing chemicals life-cycle management in a country. Concerned parties may not be fully aware of the range of mechanisms which are available, since mechanisms may be under the authority of several different ministries, agencies, or other relevant institutions; and they may not be specific to chemicals management (e.g. more general environmental controls or laws concerning the control of poisons, the protection of public health or occupational health and safety; or measures for emergency response). Moreover, priority is often not given to chemical safety as a developmental issue and areas, such as poverty reduction, employment and security are given precedence. Consequently it is recognized as essential for a country to relate sound management of chemicals and waste to its national economic and social development priorities.

**INTER-MINISTERIAL COORDINATION**

An integrated approach for achieving sound management of chemicals and waste at the national level is complicated by the fact that usually different ministries participate in the control of chemicals in different phases of the chemical life-cycle. While different countries allocate responsibilities somewhat differently and may use different titles for their ministries/agencies, in most cases:

- Ministries of Agriculture are generally concerned with the use of agricultural chemicals for the benefit of securing food supplies or the protection of plants and animals of economic benefit.

- Customs Authorities, besides administering tariffs and duties, are generally responsible for ensuring that chemicals do not enter or leave the country contrary to government regulations and international agreements. Customs Authorities may be part of Ministries of Finance.

- Ministries of Education may play an important role in awareness, promotion and training concerning chemical safety, both through the formal education system, at the primary and secondary school levels, and through universities and higher education institutions.

- Ministries of Environment are generally concerned with the direct and
indirect effects of releasing chemicals into the environment as emissions and wastes to air, water, and land, and may also control the location of installations using or emitting chemicals.

- Ministries of Finance control financial resource allocations for chemicals and waste related activities.

- Ministries of Foreign Affairs usually coordinate all international aspects of chemicals management, such as the participation in relevant international agreements and conventions. For many donor countries both bilateral and multilateral development assistance is administered though Ministries of Foreign Affairs.

- Ministries of Health are mainly concerned with the short- and long-term health impacts of chemicals on the general public, medical response to people exposed to toxic chemicals, and the safe use of chemicals of therapeutic benefit, and may also be responsible for regulating consumer chemicals, as well as pesticides used in the health sector.

- Ministries of Industry are often concerned with the production of chemicals and chemical products and the introduction of cleaner production technologies.

- Ministries of (Civil) Defence or Ministries of the Interior are usually responsible for emergency services; such are fire fighting and response to emergencies involving chemicals, as well as police services for both protection and law enforcement where toxic chemicals may be involved.

- Ministries of Justice or Legal Affairs are generally concerned with the development and enforcement of laws and regulations, and often deal with issues concerning public access to information and the protection of confidential business information, as well as with criminal and forensic investigations and legal issues related to incidents and terrorism involving chemicals.

- Ministries of Labour are generally concerned with occupational health
and safety issues related to the use and handling of chemicals at the workplace, including accidents involving chemicals in the workplace.

- Ministries of Planning are usually concerned with economic planning, as well as with land-use planning, zoning and regional development, and may have responsibilities in relation to permits for construction and operation of installations where chemicals are manufactured, used, stored or transported. In developing countries and those in economic transition Planning Ministries may also be concerned with development assistance and technical cooperation where chemicals may be involved, such as chemicals for agricultural use, technical or financial assistance for the development of chemical industries, or technical assistance for the management of chemicals.

- Ministries of Sport may play an indirect role in promoting chemical safety through healthy life styles and better awareness of chemical risks.

- Ministries of Science and Technology may promote scientific and applied research and development in areas related to chemical safety, particularly in areas such as agriculture, analytical methods, biomedicine, chemical-engineering, the natural and medical sciences, and toxicology.

- Ministries of Trade are generally responsible for regulating the export and import of chemicals and products containing chemicals and may have authority to issue relevant trade permits.

- Ministries of Transport are generally concerned with the safe transportation and storage of chemicals during the distribution phase.

- Local Authorities can have an important role in chemicals management and may be covered at the national level though a ministerial authority which coordinates local government matters.

- Government printing/publications offices are generally concerned with the publication and distribution of laws, regulations, and other government documents and can be an important local resource for public chemical safety education and awareness campaigns.
Due to the cross-sectoral nature of managing chemicals throughout their life cycle, a sound coordinating mechanism among all ministries concerned is crucial for strengthening management of chemicals at the national level in an integrated and non-duplicative way.

It should be borne in mind that federal countries often have regionally-elected governments responsible for implementing their own chemicals management regulations, as well as for areas of regional government which interface with sound management of chemicals and waste. Further, for specific areas of chemicals, and particularly waste, management may be a local authority responsibility, which is empowered to enforce national or regional legislation. In some countries rural councils and governing bodies may have important responsibilities which impact directly or indirectly on chemicals and waste management. In many countries local authorities come under the jurisdiction of elected district or local assemblies. The integration of chemicals and waste management policies and their effective implementation throughout the country will depend on the implementation of efficient coordinating mechanisms that also include such groups.

IN VolV EMENT O F COnCERNED PARTIES OUTSIDE O F GOverNMENT

In addition to government ministries, various parties and organizations outside of government play an increasingly important role in strengthening chemicals and waste management at the national and local level. Non-governmental organisations (NGOs) are often divided into the following categories: Industry, Labour, Science, and Public interest.

Industry, as the producer/importer and primary user of chemicals, has a major responsibility to reduce chemical risks throughout the chemical life cycle. In many developing countries, industry is also the source of most of the information available on chemical risks. Sound management of chemicals in the informal sector is often a challenge. In many countries, industry has taken responsibility through initiation of voluntary programmes and commitments which include, for example, “Responsible Care” and “Product Stewardship” programmes. Further, public-private partnerships are being encouraged to implement certain chemicals management strategies in some
countries. While such initiatives are not meant to replace government control systems, they do represent an increasing commitment by industry to take responsibility for the sound management of chemicals throughout the life cycle in their areas of activity.

Labour may play a significant role in improving awareness of chemical safety issues and ensuring good practices in use of chemicals, particularly in the economic sectors where labour is organised. Some countries face the challenge of poorly organised labour movements and lack of official recognition. Furthermore, there are areas of human and environmental exposure to chemicals and waste where workers have little or no organised structure.

Science based organisations, university/academic institutions, and professional bodies may provide valuable technical expertise not directly available in government and experience from these organisations may make important inputs into chemical safety activities in countries.

Public interest groups, as part of civil society, are also recognized as important contributors to the sound management of chemicals at the national and local levels. These can include, for example, environmental and consumer groups, woman’s organizations and special local interest groups, indigenous and other communities and individual citizens, as well as national associations of international public interest NGOs. These groups can have significant expertise and experience in the field, and often work at the grass roots level.

Civil society can therefore contribute to a better understanding of problems related to chemicals, to improved transparency, as well as to the development and implementation of solution strategies. Thus, it is essential that coordination of actions to implement sound management of chemicals and waste involve all relevant elements of civil society in a transparent manner.
Following the adoption in 1992 by the United Nations Conference on Environment and Development of Agenda 21 and in response to Chapter 19, Slovenia initiated its activities to strengthen chemical safety. A chemicals act was drafted, covering the life cycle integrated approach to chemicals management, and an intersectoral coordinating mechanism established with an administrative infrastructure through a National Chemicals Bureau (NCB) at the Ministry of Health. The process for accession to the European Union (EU) began in 1998 and, as part of this process, Slovenia undertook a systematic review of its legislation and procedures in order to align them with EU requirements (Acquis Communautaire). This was supported through a series of projects which resulted in the preparation of a National Chemical Safety Programme.

The National Chemical Safety Programme (NCSP), prepared as part of the EU accession process, is a strategic document addressing the national policy of developing chemical safety in Slovenia, and identifies six priorities for action covering the period from 2006 to 2010, and through which Slovenia is making a contribution to implementing SAICM. The Programme objectives aim at: improving human health and the quality of the environment by providing chemical safety in Slovenia; creating conditions for implementing and monitoring measures and activities directed towards improving chemical safety in the country; and strengthening the
contribution of Slovenia to implementing chemical safety internationally. The Programme was adopted in 2006 by the Parliament of the Republic of Slovenia.\textsuperscript{16}

The NCSP is based on an initial comprehensive situation assessment (equivalent of preparing a National Profile)\textsuperscript{17} made by relevant ministries on the basis of which and through a national workshop the major stakeholders selected six national priority areas for action: (a) integrated chemical safety legislation; (b) integrated inspection for chemical safety; (c) safety and health at work with chemicals; (d) management of waste chemicals; (e) chemical accidents; and (f) integrated chemicals monitoring. Following an introduction to the background regarding the formulation of the Programme, each of the six priority areas are described in individual chapters, divided into subchapters consisting of a number of pertinent issues ranging from the situation assessment to future prospects, objectives, indicators of progress and programme implementation requirements.

The first priority area is directed towards ensuring that Slovenia will have the necessary legal infrastructure to meet the challenge of sound management of chemicals and waste throughout the life cycle of chemicals and chemicals in products in whatever form they may be present in the country. Certain legislation may be specific to chemicals; other legislation may be of a broader or general nature but relevant to achieving sound management of chemicals and waste. Specific legislation may fall within the competence of various line ministries for which implementation requires close cooperation with others. This action plan aims to improve the efficient functioning of the legal infrastructure in the country as it concerns the full life cycle of chemicals, including promoting harmonisation of terminology; increasing the compatibility of existing inter-sectoral legislation, with the elimination of overlaps, gaps and contradictions; and improving the practi-


\textsuperscript{17} Preparing a National Profile to Assess the National Infrastructure for Management of Chemicals, UNITAR/IOMC Guidance Document (available at www.unitar.org/cwm/publications)
cal implementation of Conventions and International Agreements relating to chemical safety.

The second area is directed towards ensuring that in Slovenia the legal infrastructure for sound management of chemicals and waste is efficiently implemented and enforced at the practical level. While actions are concerned mainly with improved supervision and inspection, emphasis is also placed on the role of the individual, involved in any part of the chemicals life cycle, to ensure that regulations and mechanisms for chemical safety are implemented. This action plan also aims to improve cooperation among different enforcement authorities responsible for chemical safety issues and to improve the infrastructural support for enforcement, particularly laboratory services and the sampling and analysis of inspection samples.

The third area is directed towards ensuring safety and health with respect to chemicals in the work place in Slovenia, whether this may be in the formal or informal sectors. The programme aims to reduce the number and gravity of occupational injuries involving chemicals, reducing the causes of occupational diseases and diseases of chemical aetiology; and improving the health of workers handling chemicals. Activities include not only the implementation of chemicals risk management and risk reduction measures in the workplace, but also the promotion of good working practices and the availability of appropriate health and safety advice to workers, encouraging and supporting employers in the improvement of working conditions and in ensuring the availability of medical care, and health and disability insurance.

The fourth area is directed towards chemical waste reduction and management in Slovenia, encouraging use of material and energy wastes as raw materials, which could contribute to improved performance in the commercial sector and social well being. The programme aims to promote the introduction of technologies for the production and use of chemicals which would reduce the generation of waste chemicals and their hazard potential in all areas, such as industry, cottage industries and SMEs, agriculture, laboratories and in households. It also aims to encourage safe management of waste chemicals, including contaminated waste chemicals packaging; to reduce the generation of waste chemicals and increase the collection of hazardous waste; to promote clean-up of obsolete chemicals
and disposal sites; to improve popular awareness of good waste chemicals
management practices; and to improve the efficiency of chemical waste
management, including data collection and inspection.

The fifth area is directed towards chemical accident prevention, response
and follow-up in Slovenia. It aims to reduce the occurrence of chemical in-
cidents; to increase preparedness for effective chemical emergency response
and the provision of remediation, including rehabilitation; and to promote
international cooperation in the prevention of chemical accidents and the
mitigation of their consequences. It encourages effective industrial and com-
munity involvement. Activities include the strengthening of infrastructure for
chemical accident prevention and response, such as the emergency services,
the national poison control centre and the laboratory analysis services.

The sixth area is directed towards the monitoring of chemicals pollu-
tion in an integrated way that identifies and supports appropriate risk re-
duction measures in Slovenia. It aims to establish improved recording of
types, quantities and use and locations of discharges of chemicals and to
improve the information on the life cycle of chemicals occurring in the
country, with a view to improved risk assessment and determining pri-
orities for monitoring. Activities include the improvement and upgrading
of data resulting from existing monitoring, and the provision of access to
monitoring data on chemical pollution.

The NCSP not only gives the aims and objectives, but it also lays down
measures and activities to be carried out to achieve more effective protec-
tion of human health and the environment from negative effects of chemi-
cals in various stages of their life cycle. By integrating the situation assess-
ment and the programme together with objectives and measures into one
single document, an effort has been made to better understand the full
picture of life cycle chemical safety in the country, and appropriate condi-
tions have been created for timely implementation of the programme.

Additional action plans aimed at implementing the NCSP have already
been incorporated into both line budgeted activities and various projects.
The prospects of implementing the NCSP have been increased, and the
programme also allows for more effective tapping into various project
funds. In this respect, the adoption of the NCSP soon after Slovenia’s accession to the EU was very important. There are further anticipated benefits of coordinated planning and implementation of joint inter-sectoral activities in the framework of the NCSP and action plans, as follows:

- increased transparency in planning and implementing inter-sectoral activities,
- constant focus on chemical safety issues, with timely initiation of actions and their legitimacy,
- improved use of available human and financial resources and time,
- increased prospects for acquiring new human and financial resources (through projects etc.),
- improved possibilities for team work and stakeholder commitment,
- improved results and swifter progress in implementing life cycle chemical safety.

The Resolution on the NCSP presents general objectives and anticipated measures in addition to objectives and measures aimed at individual priority areas of chemical safety.

These measures have been evaluated in financial terms. Further, time-limits for their implementation have been set, and proposals made for responsible stakeholder action.
RELATION BETWEEN NCSP AND OTHER NATIONAL PROGRAMMES IN SLOVENIA

The NCSP is defined in the Chemicals Act\(^{18}\), as the basic document, which provides for efficient and harmonised implementation of the national policy in the field of chemical safety. It is defined as the basic medium- and long-term executive document and it has its origins in the evaluation and in the definition of key problems. Additionally, it presents strategic goals and central duties in all the fields which concern chemical safety and life cycle sound management of chemicals. However, it goes without saying that some other existing national programmes to some extent already tackle certain chemical safety issues or are at least referring to them. These other programmes may cover only certain segments of chemical safety, and they attach high priority to areas other than chemical safety per se, and are either vertical or horizontal. Conversely, the NCSP is explicitly horizontal and it addresses only chemical safety related issues. The approach taken to preparing the NCSP was different from that adopted when formulating other various national programmes, not least because it aims at connecting existing sector-based segments into a single inter-sectoral unity as well as at complementing, strengthening and upgrading them. Therefore, as was the case in the NCSP formulation process, its implementation too requires a harmonised cooperative approach which, in turn, calls for a great deal of motivation, innovation, fortitude and time.

\(^{18}\) Chemicals Act (Paragraph 2 of Articles 56 and 56a; OJ RS, No. 110/2003 - officially consolidated version, OJ RS, No. 47/04)
NATIONAL SOCIAL AND ECONOMIC DEVELOPMENT PROGRAMMES RELATED TO SOUND MANAGEMENT OF CHEMICALS AND WASTE IN THE CONTEXT OF THE NCSP

The National Environmental Action Programme (2005–2012), (NEAP)\(^{19}\) is an example of a vertical programme, addressing various aspects of the environment protection, out of which a number are directly connected to chemical safety. As far as those areas covered by both programmes are concerned, the NCSP is harmonised with the NEAP, and what is more, it also complements and upgrades it. By way of example, the NEAP, inter alia, deals with industrial chemical accidents which are also addressed within the NCSP, with the latter devoting much more detailed attention to this issue (e.g. tackling major accidents with chemicals during transport) and having a much more thorough approach (e.g. indicating a detailed action plan for attaining goals concerning major chemicals accidents in general). Further, the NEAP presents an operational programme for hazardous waste management which covers waste chemicals. Therefore, the NCSP here draws upon the NEAP and it sheds more light upon this issue by providing a detailed situation assessment as well as illustrating its vision. Similarly, the NCSP touches upon the NEAP in terms of monitoring of chemicals pollution which is within the competency of different line ministries. In this respect, the aim of the NCSP is to balance existing monitoring to acquire more useful data for making risk assessments and for planning risk reduction measures, an issue not addressed within the NEAP itself.

In keeping with the IPPC Directive of the EU\(^{20}\), the NEAP calls for introducing best available technologies (BATs) into production with a direct

\(^{19}\) Resolution on the National Environmental Action Programme (2005–2012) (NEAP), (OJ RS, No. 2/06)

impact on reducing emissions of dangerous substances and consequently on lessening the burden placed on human health and the environment. Since BATs are usually safer, there is a smaller prospect of a chemical accident and the level of health protection of employees is increased. This in turn substantially contributes to increased chemical safety. In this light, the NCSP provides for a logical measure designed to help enterprises acquire project funds (e.g. funding from EU Structural Funds) to swiftly introduce BATs into production involving chemicals.

In relation to health and chemical safety the National Health Protection Programme of the Republic of Slovenia - Health for All until 2004\textsuperscript{21}, laid the general groundwork on this issue in the past, indicating that chemical safety needs to be more thoroughly tackled within the NCSP and has now been superseded.

A resolution on the National Nutritional Policy Programme (2005-2010)\textsuperscript{22} was issued in 2005, but while it covers the chemical issues related to food, it is weak with respect to chemicals in drinking water.

The National Plan of Health Care (2008-2013)\textsuperscript{23}, being submitted for governmental approval, is directed towards promoting a healthy way of life, including nutrition policy with special emphasis on healthy nutrition of young people, promoting exercise as well as continuous public awareness raising on healthy food, control of tobacco consumption, alcohol consumption induced damage prevention, management of illicit drugs consumption, mental health and suicide prevention, injury prevention, chronic non-infectious and infectious disease prevention and risky behaviour reduction and also enhancement of the quality of life of active populations at work. The Programme aims at strengthening public and the individual’s health, giving special attention to encouraging and strengthening local communities and has many links with chemical safety.

\textsuperscript{21} National Health Protection Programme of the Republic of Slovenia "Health for All by 2004", (OJ RS, No. 49/00)
\textsuperscript{22} Resolution on the National Nutritional Policy Programme 2005 – 2010, (OJ RS, No. 39/05)
\textsuperscript{23} Resolution on National Plan of Health Care 2008-2013, "Satisfied users and performers of medical services", (OJ RS, Nr. 72/2008)
The interdependence between the environment and health and the analysis of the impacts of the environment on human health are becoming ever more important. Certain environmental factors, such as exposure to pollutants in water, food and air, are important health factors. The European Commission estimates that one sixth of mortality and disease among children could be due to environmental factors. Individuals take their own decisions as to their way of life, while relying on the state to protect them from any health risks. Therefore, the environmental factors should be given due attention at a national level, not least because a single individual cannot exert any influence on most of these factors nor can they choose among various possibilities. The Programme will strengthen efforts to link data on the environment, data on health status and to prepare analyses on the impact of the environment on human health. Epidemiological studies, which require reliable and high quality data, play an indispensable role in the assessment of impacts on the environment. Various and different database on the population's health status and data on the environmental factors have been a foundation for healthcare service in its efforts to draw up situation analyses and situation forecasts. These bases will be used as draft promotion and prevention campaigns as well as general instructions for public health professionals locally, as well as for other health professionals and inhabitants. The Strategy for Health and the Environment by the EU has prioritised increased understanding of threats posed to human health by the environment, the definition of disease burden affected by the environmental factors as well as the definition of the environment management policy. Special attention should be devoted to areas not granted enough value in terms of health and the environment, as well as to drafting additional preventive measures for vulnerable groups (such as children and populations subject to exposure at work).

Occupational medicine has tended to deal with the protection of workers health and not the broader aspects of identification and detection of occupational diseases and their prevention. As yet there are no appropriate occupational disease statistics and it is difficult to identify diseases of chemical aetiology due to work place exposure. The programme will also encourage employers to invest in workers protection and to replace existing technologies with less dangerous ones.
The environment has been put under great strain by increasing levels of waste across the world as well as in Slovenia, and waste has grown into a major problem with potential impact on health as pollution of the environment. Further, hospital and other healthcare services have made a significant contribution to waste generation. Therefore, a responsible, professional, organizational and consistent waste management should be one of the priorities, objectives and obligations of every individual, organisation, and the wider society. Sound waste management is proposed to be Slovenia's strategic objective, not least because the ramifications of inappropriate waste management are often significant and could decisively impact on peoples lives now and in the future. Volumes of waste generated within health care institutions depends upon a number of factors, such as their size and type, number of patients, number of staff, technology applied (single use of materials), as well as on public awareness and information on pressures that waste places on the environment. In order for healthcare institutions to take a responsible and sound approach to waste management, first of all waste should be properly and consistently identified and separated at their source, additional education and training of workers, awareness raising among staff as to any hazards and risks springing from waste, keeping records of waste according to their type, volume, location and time of generation.

Measures aimed at implementing the objectives of this national healthcare programme, with the identification and management of risk factors for human health and the environment (to be carried out by Ministry of Health, Ministry of the Environment and Spatial Planning, National Chemicals Bureau, other line ministries, National Public Health Institute, Regional Public Health Institutes) include:

- Formulating analyses on environmental impact on human health (epidemiological studies) and efficient control of air, soil and water pollution.

- Drafting of regular reports on environmental and human health quality, with special emphasis on data relating to the environmental factors affecting human health.
• Formulating inter-sectoral programmes for remediation of degraded areas, posing special risks for health.

• Carrying out studies on possible causalities between certain chemicals and certain diseases, and putting into place data collection and recording, including implementing bio monitoring.

• Improving control of chemicals and their placement on the market.

• Increasing general public awareness and knowledge about chemicals and their impacts on the environment and human health.

• Raising public awareness about individual responsibility for sound and safe management of chemicals.

• Implementing SAICM action plans through competent authorities.

• Enforcing relevant legislation (National Chemical Safety Programme).

• Ensuring adequate preparedness for contingencies, such as mass accidents and major outbreaks of infectious diseases, through implementing the National Chemical Safety Programme in the field of prevention and preparedness for accidents involving dangerous substances.

The National Programme for Safety and Health at Work (NPSHW)\textsuperscript{24}, dates from 2003, and defines general principles, rules and activities relating to safety and health of workers at workplace. While there is no specific mention of chemicals related issues, these are in general the same for all different kinds of risks at work and therefore they apply also for workplaces with chemicals. However, because of certain risks at work with chemicals, some specific additional measures are envisaged to facilitate improved occupational health and safety. In the area of safety and health at work the NPSHW and NCSP are crucial, since both programmes state detailed goals and activities for improving the

\textsuperscript{24} Resolution on National Programme for Safety and Health at Work, (OJ RS, No.126/03)
situation with respect to chemicals at the workplace. The NCSP in priority areas 2 and 3 summarises the preset objectives and analyses in depth the issue of occupational safety and health related to use of chemicals in the workplace, proposing possible solutions and measures to be taken in cases when chemicals are being employed at the workplace.

The National Programme for the Protection Against Natural and Other Disasters (NPPANOD),\textsuperscript{25} dates from 2002. In specific cases of disasters that are caused by chemicals, the NPPANOD tackles the issues regarding the analysis and monitoring of a threat; prevention, notification, warning and alerting; direct technical and physical protection, rescue and relief; the prevention of secondary effects; the provision of basic conditions for life; and the restoration of the previous situation. However, this Programme does not deal in depth with the effective prevention of such disasters or how to eliminate the consequences of such disasters. The NCSP sets the area of chemical accidents, (area 5) as one of its main priorities where it lays out future prospects and necessary measures to be taken in this field. It should be noted that the NPPANOD laid the general groundwork with respect to chemical accidents and indicated the necessity for a more thorough consideration of the area in the NCSP.

The National Security Strategy of the Republic of Slovenia\textsuperscript{26}, issued in 2001, besides tackling the issues in the field of foreign, military defence and related economic policies, it emphasizes also policies which can provide and promote internal security, security against natural and other disasters and the protection of the environment. As stated in the resolution, natural and other disasters are among the most important contributing factors that threaten the security of the Republic of Slovenia and its citizens. Thus in the forthcoming years, the Republic of Slovenia will promote activities that will reduce the number of disasters and that will prevent or alleviate their consequences, i.e. safeguarding and preserving human health and the environment. This issue is related specifically to the NCSP area 5.

\textsuperscript{25} National Programme for the Protection Against Natural and Other Disasters, (OJ RS, No. 44/02)

\textsuperscript{26} Resolution on National Security Strategy of the Republic of Slovenia (OJ RS, No. 56/2001), title of the Strategy given only as an non-official translation
The Slovenian Agri-environmental Programme\textsuperscript{27}, issued in 2002, \emph{inter alia} lays down measures aimed at reducing adverse effects of agriculture on the environment. This involves safeguarding protected areas and protection zones of water sources against pollution with fertilizers, plant protection products and other pesticides. Besides providing the basic guidelines for further agricultural development, it indicates some points of departure for further discussion on the subject of Slovenian agriculture in general and social development. The Programme itself envisages sanitation as among the most evident environmental problems, as well as those potential problems arising from the development of agricultural technology. It addresses also the issues regarding forestry, management of fertile soil, social problems, research work and education, as well as an overall development policy. The Slovenian agro-environmental Programme is one of structural reconstruction that can be compared to the EU policy; it is based on the preservation of natural bases in primary industry production and in rural development. Although the Slovenian Agri-environmental Programme is concerned with issues in different fields, many are still not properly tackled, especially in fields that concern improper handling of superfluous slurry, unsuitable treatment plants, etc. Agriculture is one of those fields where chemicals are being used on a daily bases, thus agricultural activities affecting the environment can be even harmful for the population, especially when dangerous substances are being employed. In several areas the NCSP complements the Slovenian Agro-environmental Programme, by promoting further technical progress and by ensuring the rational development of agricultural production and the optimum utilization of factors of production that are not harmful for human health and the environment.

The National Programme for Higher Education\textsuperscript{28}, which dates from 2002, aims at enabling as many people as possible to obtain graduate and post-graduate degrees. One of the key points of the programme was to increase the share of employed persons with graduate or post-graduate degrees to 25 percent by 2005.

\textsuperscript{27} Decree on the Slovenian Agri-Environmental Programme and the introduction of direct payments for 2001 measures (EKO 2, EKO 3), (OJ RS, No. 34/2001)
\textsuperscript{28} National Programme for Higher Education, (OJ RS, No. 20/2002)
In 2007 the Resolution on the National Programme of Higher Education (2007-2010)\(^{29}\) was promulgated and promotes the modifications needed for the higher education system, including University sponsored research, in Slovenia to respond to the challenges of becoming an equivalent partner with other European education and research institutions, providing the trained human resources for achieving the economic and social goals of the country. The NCSP calls for the promotion of new efficient educational programmes in relation to chemical safety, with effective personnel training, as well as the promotion of research in chemicals safety related fields.

**The National Research Programme**\(^{30}\) is a constituent part of the national development strategy and governmental policies embodying development goals and influences whose common purpose is promoting development towards an economically and socially successful society. The general goals of research activity are as follows: to broaden and deepen scientific awareness; to promote the application of science; to increase the extent of risk assessment (RA); and to educate top-quality experts. In chemical safety field one important goal that is stated in the NCSP is in promotion of research and development programmes which aim at safer use of chemicals.

**The National on the Road Traffic Safety\(^{31}\)** was adopted in 2002 and has an aim that eventually no one will be killed on Slovenian roads i.e. there are no fatalities and no sever injuries in road accidents. The programme is aimed at the designers and users of road transport systems; and objectives cover four main areas, namely, human behaviour, the traffic environment, vehicles and institutions. The relation to chemical safety is largely indirect and secondary to minimize exposure of road users to chemicals that may have an adverse impact on their human behaviour; but an improvement in road safety should also reduce potential road accidents involving chemicals and other hazardous materials.

\(^{29}\) Resolution on National Programme of Higher Education Republic of Slovenia 2007-2010, (OJ RS, No. 94/07)

\(^{30}\) National Research Programme, (OJ RS, No. 8/1995)

\(^{31}\) National Programme on the Road Traffic Safety in Slovenia, (OJ RS, No. 63/02)
The National Motorway Construction Programme\textsuperscript{32} was adopted in 1996 and amended in 1998, and envisages the building of new express and motorways and renovating existing roads. It aims to improve traffic flow and improve access, as well as to promote safer roads and reduce potential accidents involving toxic chemicals. It could also reduce time delays in transporting patients or equipment at the times of a chemical incident.

The National Programme of Slovenian Railway Infrastructure Development\textsuperscript{33} was adopted in 1996 and amended in 2003, and plans to improve the current rail infrastructure and implement high speed networks coordinated with the development of the European railway infrastructure. Potentially an improved rail network could provide safer transport of chemicals and hazardous materials and reduce the risk of accidents.

The National Programme of Consumer Protection (2006–2010)\textsuperscript{34} adopted in 2005 is inter-sectoral, and chemical safety in relation to consumer protection is addressed in 2 sections of the programme. One deals with plant protection chemicals, including biocides, and is concerned with implementation of measure to protect the public, and provides targeted outreach education of consumers. The other section deals with the protection of the consumer from exposure to chemicals in products through promoting the availability and understanding of information about chemicals in consumer products.

\textsuperscript{32} National Motorway Construction Programme in Republic of Slovenia, (OJ RS, No. 13/96)
\textsuperscript{33} National Programme of the Slovenian Railway Infrastructure Development, (OJ RS, No. 13/96)
\textsuperscript{34} Resolution on the National Programme of Consumer Protection 2006-2010, (OJ RS, No. 114/05)
CONCLUSION

Chemical safety impacts on many aspects of daily life; consequently these various national programmes, not least those concerned with promotion of healthcare and environment protection should be regarded as instruments employed for achieving general chemical risk reduction. Despite the fact that some of these national programmes seem, at least at first sight, to address the same or similar chemicals related issues as the NCSP, they illustrate them from different standpoints and provide only general background in the context of other programme areas; therefore this is not a matter of duplication. It may be concluded that the existing national programmes are interwoven with each other, and when it comes to their implementation, none of them should be marginalised, but rather all proposals for action provided by these programmes should be capitalised on.
The Strategic Approach to International Chemicals Management (SAICM) was adopted in Dubai, United Arab Emirates in February 2006 at the first meeting of the International Conference on Chemicals Management (ICCM). The overall goal of the Strategic Approach to the International Chemicals Management is to achieve the Rio Declaration on Environment and Development,35 Agenda 21, the Bahia Declaration on Chemical Safety,36 the Johannesburg Plan of Implementation and the 2005 World Summit Outcome37 as concerns sound management of chemicals, and in particular that, by 2020, chemicals will be produced and used in ways that minimize significant adverse impacts on the environment and human health. Besides the Dubai Declaration and the Overarching Policy Strategy, SAICM comprises a Global Plan of Action (GPA), addressing current and ever-changing societal needs, as a working tool and guidance document for implementing country and international commitments for sound management of chemicals. In the implementation of SAICM in countries, emphasis is placed on strengthening governance through mainstreaming life cycle chemicals issues into the overall economic and

36 Intergovernmental Forum on Chemical Safety, third session Forum III final report (IFCS/ForumIII/23w), annex 6
37 General Assembly resolution 60/1, of 16 September 2005
social development goals of a country, building on existing activities and programmes and ensuring full stakeholder participation through effective coordination mechanisms.

Ministers of Health and Environment were signatories for the Republic of Slovenia of SAICM at the first ICCM. Later that year work was initiated by the NCB to review the current National Chemical Safety Programme for the period 2006 to 2010 in the light of the new requirement to implement SAICM in Slovenia. Taking the SAICM Global Plan of Action, each of the 273 activities were examined as to their relevance for the situation in Slovenia and whether they relate to priority areas already being implemented as part of the National Chemical Safety Programme. A number of areas were identified for strengthening and a work plan was drawn up and responsibilities assigned among stakeholders for implementation in Slovenia. Stakeholder approval was obtained through the Intersectoral Committee for Chemical Safety and 16 priorities were identified from the 36 SAICM work areas as follows:

- Human health protection;
- Children and chemical safety;
- Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS);
- Pesticides programmes;
- Reduced health and environmental risks of pesticides;
- Cleaner production;
- Remediation of contaminated sites;
- 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 national level;
- Risk assessment, management and communication;
- Waste management (and minimization);
- Research, monitoring and data;
- Hazard data generation and availability;
- Promotion of industry participation and responsibility;

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38 SAICM Global Plan of Action, Possible Work Areas given in Table A, (see on www.saicm.org)
Information management and dissemination;
Education and training (public awareness); and
Stakeholder participation.

As an example, SAICM Global Plan of Action activity 4, under work area “Human Health Protection” seeks to “Develop better methods and criteria for determining the impact of chemicals on human health (and thereby on the economy and sustainable development), for setting priorities for action, for the detection of chemicals and for monitoring the progress of SAICM”. This activity, considered as a priority for Slovenia and already as part of the National Chemical Safety Programme, would require a strengthening of cooperation between the National Chemicals Bureau and the Institute of Public Health in order to establish a centre for chemicals risk assessment, which would be located in the National Chemicals Bureau and provide practical guidelines and training.

As a second example, SAICM GPA activities 47 and 48 are concerned with “remediation of contaminated sites”, where the National Chemicals Bureau, Ministries of Health, Environment and Economic Affairs, as well three Municipalities have been involved since 2000 in monitoring contamination in three areas and preparing remedial action. Initiatives of civil society in the Celje area and the establishment of a Council for Sustainable Development of the Celje Basin led to an environmental improvement. Through linking the local level and Ministries a better awareness was promoted at the political level; and, as a result, a new interdepartmental group for coordinating action on remediation of contaminated sites at the national level will be established with the participation of State Secretaries of Ministries of Agriculture, Economy, Environment, Health and Regional Development.

As a third example, SAICM GPA activities 154 and 155 are concerned with promoting “public awareness” about chemical safety issues, where most members of the ICCS are involved in their areas of responsibility. The first large-scale public awareness raising campaign was organised by the NCB in May 2006 in one of the main parks of the capital city Ljubljana. With the adoption of the NCSP by the Parliament chemical safety week has become a tradition, taking place each year at the end of May. The 29. May was adopted by the Intersectoral Committee for Chemical
Safety as Slovenian chemical safety day on the proposal of the Chamber of Commerce – the day when the first act on chemicals came into force. The opportunity of the Slovenian Presidency of the EU in 2008 was taken to organise an exhibit on chemicals in everyday life\(^{39}\), to improve public awareness of the presence of chemicals in all aspects of everyday life and to encourage the public to be wiser in how they are used and handled with care. Additionally the exhibit attempted to improve public understanding of two important risk management activities of the European Community: the EU regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); and the introduction of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS). The exhibit was shown in Brussels at the EU Council’s Justus-Lipsius building, 2-5, June 2008 in order to coincide with four major events: the inauguration of the European Chemicals Agency; entering into operation of REACH; environmental (green) week and the Slovenian presidency of the EU. The exhibit is reproduced in Annex 3 for possible appropriate adaptation and use by other countries in their public awareness campaigns. Again a series of public awareness campaigns, including workshops for specific target groups, are being planned for 2009, with a culmination during chemical safety week in May.

A strategic Programme of work of the NCB for the period 2008 through 2012 was subsequently prepared, as a five year strategic plan to facilitate among other tasks the work of implementing SAICM in the Republic of Slovenia. The NCB is designated to coordinate the implementation of SAICM and stakeholders are required to report regularly on the implementation of relevant activities within their own areas of competence. In order to facilitate the implementation of this decision, the NCB prepares a report for the Intersectoral Committee for Chemical Safety outlining the current SAICM activities and listing those activities which other stakeholders may wish to consider as their own priorities for implementation of SAICM, further details of which are outlined in sections below.

For the 2009 the emphasis is placed on chemical safety awareness and

\(^{39}\) see the brochure at www.uk.gov.si/en/ in section ”legislation and documents” sub-section “strategic documents”
education, for which a document on the principles has been prepared, which gives the activities proposed for each stakeholder area. The current state of awareness raising and education and the activities of various sectors, such as industry, local communities, health professionals and the general public, are described; the problems related to exposure to chemicals, including misuse, poor handling and lack of understanding of the requirements for sound management of chemicals by users are quantified. The document further provides a vision for raising awareness in the country and proposes responsibilities of various stakeholders with target audiences and methods for promoting public awareness, including use of information technology, with the structures, tools and resources for awareness building. Possible activities and the content of action plans are proposed for stakeholders to debate and incorporate into their own programmes of work.

**MAINTREEMING CHEMICAL SAFETY IN TO ECONOMIC DEVELOPMENT PLANS OF THE REPUBLIC OF SLOVENIA**

This area relates specifically to SAICM GPA activities 181-188 and 257.

**AREAS OF DEVELOPMENT DIRECTLY RELATED TO CHEMICAL SAFETY**

Due to the slowing economic growth, low productivity and low levels of innovation, Slovenia has recognised the need to invest in technology and capital intensive industries with high added values. By promoting innovation and research in the field of natural sciences Slovenia wants to gain back the economic momentum and increase its economic growth. The role of ideas
and technological innovations is central to the production of wealth.\textsuperscript{40} The first of the five development priorities, which are designed to achieve the four long term strategic goals, deals with promoting competitive economy and faster economic growth.\textsuperscript{41} The key sectors of the economy directly relating to chemical safety mentioned in the Strategy are pharmaceuticals and chemical industry, as well as electronic communications and electrical equipment.\textsuperscript{42} Investing heavily in these sectors has been foreseen in the government’s Action Plan 2005–2006\textsuperscript{43} as well as in the Programme for Stimulating Technological Development and Information Society 2007–2012. The Ministry of Economy has, among others, been tasked with channelling domestic and European resources in centres of excellence and technological centres in the field of new materials and composites. The opportunities in investing in chemical industry have also been recognised by the Resolution on National Research and Development Programme 2006–2010.\textsuperscript{44}

As a direct consequence of these new strategies the volume of chemicals used in Slovenia will increase. With the predicted deregulation, decentralisation and liberalisation of the market the role of the state will decrease and a greater burden of chemical safety will be given to the private sector and individuals.\textsuperscript{45} This is consistent with the June 2007 European Commission Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals commonly known as REACH, which is based on the idea that the industry itself is best placed to ensure that the chemicals it manufactures and puts on the market in the EU do not adversely affect human health

\textsuperscript{40} Programme for Stimulating Technological Development and Information Society 2007-2012, Ministry of Higher Education, Science and Technology on the basis of Research and Development Act (official consolidated text), (ZRRD-UPB-1, OJ RS, Nr. 22/06), http://www.mvzt.gov.si/si/zakonodaja_in_dokumenti/veljavni_predpisi/tehnologija/


\textsuperscript{42} Slovenia’s Development Strategy (2005), p. 25, see footnote No. 4

\textsuperscript{43} Action Plan for years 2005 and 2006 is an integral part of Slovenia’s Development Strategy

\textsuperscript{44} Resolution on the National Research and Development Programme 2006–2010, (OJ RS, Nr. 3/06)

\textsuperscript{45} Slovenia’s Development Strategy (2005), p. 21, see footnote No. 4
or the environment. From the documents produced it can be implied that Slovenia is aware of the link between economic growth and chemical risks. The Strategy therefore strives to decouple economic growth from ecologically burdening the environment. This is to be achieved through the principle of sustainable growth, which is one of the basic principles of Slovenia's economic development.

AREAS OF DEVELOPMENT INDIRECTLY RELATED TO CHEMICAL SAFETY

Energy intensity in Slovenia has decreased in the past ten years, however, the growth levels of intensive farming, which is burdening the environment, remain high, and the agricultural energy consumption is beginning to rise again. Resolution on National Energy Programme shows that Slovenia recognises the connection between energy consumption and burdening the environment. It admits that use and production of energy can burden the environment especially in areas of: climate change and use of natural resources, biodiversity, health of the population, and waste products in relation to energy production. Chemical pollution is pointed out as one of the most significant threats caused by high energy consumption.

Sustainability has become one of the principles of Slovenian agriculture, but not the main principle, and there is room for improvement, particularly with respect to agricultural waste, where there is need for strengthened cooperation with the Ministry of Environment and Spatial Planning. The result of the current development has resulted in the decrease of biotic diversity and the quality of the environment.

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47 Resolution on National Energy Programme, (OJ RS, Nr. 57/04)

48 Slovenia's Development Strategy (2005), p. 17, see footnote No. 4
trends pose additional danger to the wider environment considering that agriculture is one of larger consumers of chemicals. Care for sustainable economic growth and sustainable usage of natural resources is therefore central to Slovenia’s Development Strategy. High biotic and landscape diversity, quality of living and preserving environmental capital are pointed out as central characteristics of development.49 Sustainable development is also one of the four long term strategic goals for Slovenia’s development.50

Slovenia’s Development Strategy also predicts increasing investments in education and research. While there is no specific reference that education will be about chemical threats and accidents, such knowledge will be necessary due to planned increased investments in Slovenia's chemical industry. With increased focus on education, Slovenia is pursuing the European Union’s Lisbon goals.51 One of the goals is to increase investment in educational systems, science, and research and development, in order to thoroughly reform the economy and social state to achieve social development by 2013. Slovenia’s focus on education could consequentially decrease the level of chemical threats through horizontally linking knowledge from various areas in order to achieve goals described in the Strategy. For that reason the Action plan for 2005 and 200652 foresaw ”establishing mechanisms to increase corporate investment for co-operation with educational institutions and the readiness to promote mobility”.53 Ministry of Labour, Family and Social Affairs, Ministry of Education and Sport, Ministry of Economy and Ministry of Higher Education, Science and Technology were all tasked to implement the Action Plan.

A separate chapter in the 2005–2006 Action Plan was devoted to increasing the quality of education. The actions included: the adoption of a

49 Slovenia’s Development Strategy (2005), p. 18, 19, see footnote No. 4
50 Slovenia’s Development Strategy (2005), p. 19, see footnote No. 4
52 Competitive Economy and Higher Economic Growth – Action plan for 2005 and 2006 is a part of Slovenia’s Development Strategy (2005), p. 26-29, see footnote No. 4
53 Slovenia’s Development Strategy (2005), p. 27, see footnote No. 4
new National Programme of Higher Education; changes in the system of financing in order to increase applicative knowledge; enabling international comparability and competitiveness of programmes; encouraging enrolment in science and technology studies, developing entrepreneurial skills in science and technology schools; and modernising post-secondary vocational education by reforming the curricula of post-secondary technical schools. These actions also provide an opportunity to upgrade the Slovenian education system with topics from the area of chemical risk management and disaster prevention.

CHEMICALS RELATED MULTI-LATERAL ENVIRONMENT AGREEMENTS

While SAICM is not a legally binding instrument it provides a policy framework to promote chemical safety in its broadest terms, recognising that other Multi-lateral Agreements (MEAs) address aspects of chemical safety. Reference is specifically made to Rotterdam and Stockholm Conventions. During the earlier period in preparing its National Chemical Safety Programme the Republic of Slovenia had concentrated mainly on reviewing its international obligations as it became a member of the European Union. Some consideration was also given to conforming to OECD Council Decisions. In developing a national SAICM implementation plan the Republic of Slovenia reviewed more broadly its commitments through chemicals related Conventions and other International Agreements. The table in Annex 1 lists the MEAs, relating directly or indirectly to chemical safety, to which Slovenia is a signatory or has taken into consideration in the SAICM process, indicating which authorities have specific responsibilities for their implementation in the country. It must be born in mind

54 Slovenia’s Development Strategy (2005), p. 32, 33, see footnote No. 4
that certain MEAs predate the country’s independence and at the time of signing different authorities may have been involved.

COORDINATION MECHANISMS FOR THE SAICM IMPLEMENTATION

An inter-sectoral coordinating mechanism for chemical safety matters in Slovenia has been operating since 1996 based on a governmental decision. The Intersectoral Committee for Chemical Safety (ICCS) consisting of relevant representatives of line ministries, the economy, social activities, NGOs and other stakeholders engaged in anyone phase of chemicals life cycle was formally re-established in 1999 on the basis of Chemicals Act, and was charged to coordinate responsible ministries in pursuing national policies, programmes and measures based on the Chemicals Act and other chemicals rules, as well as providing comprehensive and coherent development of chemical safety nationally. Through this mechanism preparation of the National Chemical Safety Programme was coordinated. During the preparatory period for SAICM all stakeholders were kept informed of the process and this Committee provided a mechanism for channelling views and guidance to representatives of Slovenia. The governmental decision in 2008 to designated the National Chemicals Bureau to coordinate the implementation of SAICM in the Republic of Slovenia and authorised the ICCS for the mechanism for ensuring a full stakeholder involvement in the process.

The membership of the Committee is as follows:

Ministry of the Interior
Ministry of External Affairs
Ministry of Defence
The Chairman of the Inspection Council also participates in the sessions dealing with the supervision of the implementation of relevant legislation.

The Committee has a rotating chairmanship and deputy appointed from among its members. The appointment requires a majority vote. Its first chairperson was the director of the National Chemicals Bureau (NCB); currently the chairmanship is with the NGO “Slovenian Toxicological Association”, and formerly was with the nongovernmental Consumer Sector.

Its Secretariat based within the NCB coordinates the work of ICCS and its provisional and standing committees. The ICCS's secretary is not necessarily one of its members, but is appointed as its secretary by the NCB director. The Secretariat is responsible for carrying out professional, administrative and technical tasks. Its legislative authority is defined in the Chemicals Act.

The ICCS drafts measures and programmes for sound management of chemicals, coordinates intersectoral projects pertaining to chemical safety.
internationally, promotes relevant information exchange, tackles chemical safety related issues, participates in drafting the national chemical safety programme and action plans in the framework of its SAICM related tasks. What is more, the ICCS is charged to provide annual reports on its performance to the Government of the Republic of Slovenia.

The ICCS performs the following in functions in relation to chemical safety:

Commission in the field of chemical safety is performing the following tasks:
• Monitors and coordinates the work of the government and interested non-governmental departments,
• Assesses the situation, identifies the key problems and proposes and coordinates joint inter-services solutions, as well as the short, medium and long-term national and global strategic objectives,
• Participates in drawing up the draft National Chemical Safety Programme and the associated action plans in the framework of its SAICM related tasks
• Monitors and coordinates the implementation of the National Chemical Safety Programme,
• Monitors the planning and implementation of other national programs in the works, which relate to chemical safety,
• Deals with issues relating to the obtaining of domestic and foreign project funds, especially those that are available in the European Union,
• Makes proposals for intersectoral projects, promotes and coordinates the financial participation of departments and monitors their implementation,
• Promotes the exchange of information related to chemicals safety, among departments and in the international context,
• Suggests other activities necessary to improve the protection of human health and the environment against the adverse effects of chemicals.

Systematic coordination of relevant line ministries’ performance when it comes to prevention of and response to chemical accidents, as well as reflecting on the draft National Chemical Safety Programme with focus on the priority area of chemical accidents;
• Drawing up an inventory of protective and emergency response equipment for chemical accidents, identifying shortages, with the aim of capitalizing on available project funds of the European Commission;
• Other activities undertaken to increase protection against chemical accidents.

In December 2005, the ICCS set up an Inter-sectoral Committee for Coordination of Monitoring of Water Pollution with Chemicals, and charged it with harmonizing water monitoring programmes and data base linkage. Its main tasks are to take decisions regarding organizational, technical, professional, legislative and other improvements to be made so as to mutually harmonize existing water monitoring programmes, and to integrate relevant data bases run by different line ministries. The aim of coordinating these monitoring programmes and integrating relevant data bases is also to increase quality and compatibility of data on pollution of drinking water sources (underground and surface water) so as to use these data for conducting risk assessments and for taking decisions on risk reduction measures.

According to its mandate, the Committee has given priority attention to the Resolution on the National Chemical Safety Programme, with a view to amending it and adapting it for further deliberations within the Government of the Republic of Slovenia. Focus has also been placed on devising guidelines for storage of mixed hazardous chemicals, setting up a central platform for information exchange among inspectors from different inspectorates, and drafting rules of procedure of the ICCS. The Committee has also focused on the presentation of the EU Footprint Project as well as the issue of the intended construction of gas terminals in the bay of Trieste. The Committee also adopted the Resolution on the National Chemical Safety Programme, in addition to addressing the draft programme on interdisciplinary study of toxicology and ecotoxicology at 2nd and 3rd levels of higher education. It celebrates the Chemical Safety Week, which takes place end of May and early June.

The Committee is mandated to review legislation for gaps and advise on actions, such as in relation to nanotechnology and endocrine disrupting chemicals and also certain commercial products such as air fresheners.
The Committee also has a responsibility to advise on initiatives that the Republic of Slovenia may make in the international arena such as the UN Specialised Agencies and the OPCW. The Committee made the proposal for a government decision of appointing the Director of the NCB as the vice-chairperson of the Intergovernmental Forum for Chemical Safety for CEE Region, as well as the proposal of appointing the NCB as the national focal point for SAICM. Another initiative is to sponsor a draft resolution on obsolete pesticides and chemicals to be presented at the World Health Assembly (WHA 62), in May 2009.

CHEMICALS AND WASTE RELATED NATIONAL PROGRAMMES AND POLICY AREAS IN IMPLEMENTING THE SAICM GOALS IN SLOVENIA

Implementing SAICM in Slovenia calls for an integrated approach to lifecycle chemicals management, in which all stakeholders are involved in their specific areas of responsibilities. Consequently, the Republic of Slovenia has initiated its own action plan to implement SAICM, involving all relevant stakeholders and listing the possible work areas and their associated activities, actors, targets/timeframes, indicators of progress and implementation aspects, according to the 273 activities of the SAICM Global Plan of Action, and as may be relevant to the situation in Slovenia. The 16 priorities identified from the 36 SAICM work areas are listed in the beginning of Part 3 of this document. The following sections summarise the chemicals and waste related national programmes and policy areas with an indication of the respective main relevant activities of the SAICM GPA. However, it is recognised that the situation is ever-changing and priorities and activities may be anticipated to evolve, both nationally and internationally. It may be noted that some activities are specific to the work of the ICCS, usually in
combination with one or more of the stakeholders, and include SAICM GPA activities 1, 47, 56, 67, 74, 75, 90, 105, 106, 119-121, 129, 130, 133, 134, 154, 157, 164, 166, 173-176, 189, 191, 194, 195, 197, 199, 205-207, 228, 232, 236 and 266.

Role of the National Chemicals Bureau


Established in the Ministry of Health in 1999, the mission of the National Chemicals Bureau is to provide chemical safety in the Republic of Slovenia and its basic task is to provide acceptable risks to all population of the country concerning their health and the environment when it comes to production and use of chemicals. This is fulfilled by integrating and coordinating views of relevant national authorities, professional institutions and the public to provide a balanced policy on chemical safety, by raising awareness at all levels through the public and the educational system, as well as through the work of a highly qualified NCB staff.

In late 2008 the name of the National Chemicals Bureau was changed to the “Chemicals Office of the Republic of Slovenia” (CORS) with six internal organizational units as follows:

- Sector for Planning, Coordination and Development,
- Sector for Chemicals,
- Sector for Pesticides and Monitoring,
- Sector for Risk Assessment,
- Sector for Quality Assurance and Informatics,
- Chemicals Inspection.
The **Sector for planning, coordination and development** is responsible for performing tasks relating to:

- **Planning**: coordination of efforts to draw up the work programme and corresponding sub-programmes, drafting of budget, planning of individual projects and intersectoral and interministerial tasks, planning of human resources recruitment and education.

- **Coordination**: monitoring of realization of the annual working programme, collegiums, monitoring the formulation of EU regulations and directives, monitoring and guiding education and training plans, drafting of relevant rules: formulation of starting points, cooperation with the legal department of the Ministry of Health, the Government Office for Legislation, relevant ministries and external partners; monitoring the compliance of proposals with relevant legislation and implementing regulations, supervising compliance with the Acquis, coordination of those responsible for implementing contracts, providing assistance in public tenders and supervising the legitimate and rational use of budgetary resources, coordination of preparations for Slovenia’s presidency.
of the EU, coordination of the drawing up of reports for the Director, relevant minister and the Government of the Republic of Slovenia, coordination of formulating relevant materials and public relations.

- Development: collection and processing of input data (new EU regulations and new EU draft regulations, inspection reports, monitoring etc.), analyses, reports and draft measures of cooperation with external institutions, the Chamber of Commerce and Industry, NGOs; devising in-house reports, coordination and formulation of systemic analyses, reports and draft measures for chemical safety in the Republic of Slovenia, coordination and formulation of systemic analyses, reports and draft measures for in-house organization and operation.

The Sector for Chemicals is in charge of performing tasks pertaining to:

- conditions for production, placing on the market and use of dangerous chemicals,
- registration, evaluation and authorization of chemicals, as well as restrictions and bans on placing chemicals on the market (REACH),
- classification, labeling and packaging of dangerous chemicals (GHS),
- the Strategic Approach to the International Chemical Management (SAICM),
- strategic good (chemical and biological weapons and their precursors), drug precursors,
- cosmetic products and detergents,
- prior informed consent procedures (Rotterdam Convention),
- carrying out administrative procedures and operational tasks pertaining to its working areas,
- cooperation with other sectors, NGOs and industry when it comes to relevant professional and administrative issues,
- cooperation with other countries, EU institutions and international organizations when it comes to relevant professional and administrative issues

The Sector for Pesticides and Monitoring is responsible for:

- trade in biocidal products, planning, preparation, implementation and
coordination of evaluation when it comes to biocidal products, and providing evaluators of biocidal products,
• cooperation and implementation of rules pertaining to residues of pesticides and plant protection products, as well as for granting and withdrawing consensus for registration of plant protection products,
• coordination of monitoring of chemicals, POPs and biocidal products as well as monitoring of their degradation products and traces in the environment and living organisms,
• giving due attention to implementing rules on POPs as well as the national implementing plan for persistent organic pollutants,
• collection and management of information on databases of national and international contractors, as well as putting into place support tools (modules) and data (scenarios) for evaluating of chemicals, biocidal products, POPs and plant protection products,
• giving due attention to continual harmonization and transposition of EU regulations into the national legislation, and cooperation with the EU on biocidal products and their evaluation, as well as POPs monitoring,
• professional formulation of relevant rules,
• implementing relevant administrative procedures and operational tasks, cooperation with other line ministries, NGOs and industry on relevant professional and administrative issues
• cooperation with other countries, EU institutions and international organizations on relevant administrative and professional issues, and participation in international expert and other bodies, projects and programmes.

The Sector for Risk Assessment is responsible for:

• providing expert and technical support to various governmental sectors, companies liable to abide by relevant legislation, and other contractors, including by offering draft risk analyses and draft contingency measures,
• risk assessment based on valid rules of the National Chemicals Bureau (biocidal products with active substances, chemicals, cosmetic products etc.)
• review old chemicals risk assessment based on expert guidelines and by examining risk assessment and studies that have already been performed,
• counselling on risk and exposure reduction and risk reduction measures,
• participation in national and international expert working bodies and cooperation with experts and other competent authorities responsible for assessment ranging from chemistry, toxicology, ecotoxicology, environmental fate and impact, to exposure, efficiency relating to protection of human health and the environment,
• expert exchange of opinion and provision of expert support,
• providing expert and technical support to various governmental sectors, companies liable to abide by relevant legislation, and other contractors, including by offering draft risk analyses and draft contingency measures,
• formulation of relevant rules,
• relevant education and training and facilitating expert support within the sector.

The Sector for Quality Assurance and Informatics is responsible for:

• controlling good laboratory practice in testing laboratories carrying out non-clinical safety studies on chemicals,
• dealing with reports on chemicals and managing a list of chemicals placed on the market of the RS,
• exchange and processing of data on chemicals together with other competent authorities, organizations and international organizations,
• cooperation in the field of chemicals, biocidal products, cosmetic products and detergents on quality assurance systems and requirements that analytical and testing laboratories are liable to meet,
• focusing on in-house quality assurance system, and planning, monitoring, analyses and improvements,
• upkeep and upgrade of local computer networks, the Information System for Chemicals, and websites,
• expert drafting of relevant rules,
• implementing relevant administrative procedures and operational tasks, cooperation with other line ministries, NGOs and industry on relevant professional and administrative issues
• cooperation with other countries, EU institutions and international organizations on relevant issues.
NCB maintains as part of the Information System for Chemicals two databases:

- a database of dangerous chemicals (chemical products) on the Slovenian market which contains over 43,000 chemicals; for each chemical, a safety data sheet, data on composition, data on purpose of use and annual amount are available,
- a database of companies registered for the production, trade, storage or use of dangerous chemicals which contains approximately 1,500 companies with data on name, address, type and status.

*Chemicals inspection* is in charge of:

- inspection in compliance with its powers, including management and decision taking on inspection procedures, fast-tract procedure for minor general offences,
- lodging criminal complaints for criminal acts,
- putting forward recommendations, policies and measures to increase chemical safety,
- cooperation in efforts to draw up rules relating to working areas of the organisation,
- cooperation with other inspection authorities, customs authorities, the police and the judiciary,
- cooperation with other countries, EU institutions and international organizations working areas related issues.
The Environmental Protection Act sets out the orientation of the environmental protection policy for Slovenia, pursuant to which the National Environmental Action Programme (NEAP, first version 1999, update in 2006), provides the basic strategic environmental protection document for the country. Its chief objective is the general improvement of the environment and quality of life, and the protection of natural resources. To this end the programme sets goals in individual areas for specified periods of time, and determines priority tasks and measures for the attainment of those goals. The NEAP is a point of departure for the environmental aspects of Slovenia's Development Strategy, which provides a vision of Slovenia's future development, as well as guidelines and measures for the realisation of this vision by 2013. The basic orientation of environmental protection policy is directed towards ensuring sustainable development; this differs from the usual method of resolving environmental problems, which is to deploy a technical approach to the issue of limiting pollution. The concept of sustainable development is being deployed to an ever greater extent by the international community and by EU member states as development that will enable the survival of future generations and will meet their needs. In addition to preventing and reducing pollution at source, it also emphasises the need to use fewer natural resources and to use them more sensibly and to conserve biodiversity. As far as the environment is concerned, sustainable development means organising the economy, infrastructure, settlement and lifestyles in such a way they do not place too great a burden on the environment and on natural resources. The programme therefore also takes account of measures drawn up as part of the Plan of Implementation adopted by many countries, including Slovenia, at the World Summit on Sustainable Development (Johannesburg, 2002) and aims to encourage the
integration of environmental considerations into other sectoral policies, in accordance with the principle of integration.

Objectives and measures are advanced for four key areas, as follows: climate change; nature and biodiversity; quality of life; and waste and industrial pollution.

The basic objectives by individual area are:

- to place emphasis on climate change as an important challenge in the coming years and to reduce emissions of greenhouse gases, thereby contributing to the long-term goal of stabilising concentrations of greenhouse gases in the air, as well as reducing emissions of ozone-depleting substances;
- to protect and preserve natural systems, habitats and wild animal and plant species in order to halt the loss of biodiversity and genetic diversity, and to stop soil from degrading further;
- to contribute to raising quality of life and social welfare by ensuring that the environment does not contain pollution at levels harmful to health and the environment, by promoting sustainable development in towns and cities and, in particular, by ensuring that measures are implemented that establish good surface and underground water status and sustainable water management, including activities that focus on the water balance and on the rational consumption of water as a natural resource;
- to ensure that waste management and the use of renewable and non-renewable natural resources, which facilitates sustainable production and consumption, contributes to reducing environmental pollution and energy consumption in such a way that an excessive burden is not placed on the environment.

The NEAP also defines the main players in the area of environmental protection: state and local authority administration, entities responsible for public state and local authority environmental protection services, and non-governmental organisations. It also sets out their role and the directions in which their work should proceed. The guidelines and priority tasks relating to international activities are also set out. The aim here
is to include environmental protection requirements in foreign policy and development cooperation, ensure the effective fulfilment and enforcement of international environmental treaties, and accelerate cross-border cooperation with neighbouring states and regions. Measures relating to communication with the public and education in the area of environmental protection are support measures crucial to successful implementation of the programme; they can help to change social habits and the value system, and bring an end to unsustainable lifestyles. Access must therefore be provided to environmental information, public participation in the formulation of environmental policies must be secured, and the public must be informed and made aware of environmental issues. A system of environmental education must be introduced so as to provide conditions for a corresponding sustainable reduction in negative environmental impacts.

The main policy for achieving the programme's objectives is a fairly well-established financial one: the "polluter pays" principle. The programme therefore sets out economic instruments and environmental taxes as a basic source of funding, and also lays down further policies for the environmental protection funding system. The programme only broadly addresses the issue of the funding of programme implementation; this is defined in greater detail within the operational programmes.

The last chapter sets forth the tasks and deadlines for the monitoring of programme implementation and evaluation. It lays out a series of indicators that enable comparisons to be drawn at the international level in relation to achievement of the objectives and the state of the environment.

INTEGRATION OF THE ENVIRONMENT INTO SECTORAL POLICIES

The inclusion of environmental requirements in all policies and activities is essential for the enforcement and promotion of sustainable development. The state, regions and local authorities must, when adopting policies, strategies, programmes, plans and general legal acts, and when implementing other activities within their areas of jurisdiction, promote the economic and social development of society in such a way that, as the
needs of the current generation are satisfied, the same opportunities for satisfaction are available to future generations, and that long-term preservation of the environment is enabled.

The inclusion of environmental components in sectoral policies is ensured by:

- taking into account environmental objectives when drafting sectoral policies so that sectoral programmes of measures are as effective as possible and also contribute to the achievement of environmental objectives;
- regularly monitoring integration with the aid of suitable indicators, on the basis of a methodology common to all sectors, and reporting on the sectoral integration process;
- including environmental criteria in funding programmes;
- establishing and implementing an environmental impact assessment system and integrated environmental assessment;
- taking the objectives of the programme into account in national strategic documents and future financial perspectives.

One of the instruments for integrating environmental components into sectoral policies is the Strategic Environmental Assessment (SEA). A SEA is performed for all plans, programmes and policies that have a significant impact on the environment. These include all plans that contain projects for which an Environmental Impact Assessment (EIA) is required, plans for Nature 2000 areas, spatial planning acts, and various sectoral programmes at the local, regional and national levels.

The objective of the SEA is to ensure a high level of environmental protection and to assist in the inclusion of environmental aspects in the preparation and adoption of plans and programmes, thus further promoting sustainable development.

Environmental policy does not address management of chemicals as special part of environmental protection. Management of chemicals is integrated into legislation covering different areas of environmental protection- such as waste management, water management, management of major accidents’ hazards, air pollution. In this legislation chemicals are
handled according to their characteristics and their interrelation with environmental media.

**Policy Role of the Ministry of Health and the Institute of Public Health in Chemical Safety in Slovenia**

The SAICM GPA activities of main concern are 2-7, 11, 13, 15, 20, 34, 35, 38, 45, 47, 48, 54, 74, 76, 78, 81, 82, 87, 111, 112, 123, 128-130, 150-154, 157, 221, 222, 228, 229, 233 and 237.

Within the Directorate for Public Health of the Ministry of Health, the Food Safety Division is responsible for the preparation of legislation in the food safety field and for taking care of its implementation. Chemical safety meets with food safety when chemicals are used in food or food is contaminated with them. This field is strictly regulated at the EU level and Slovenia respects, applies and implements all the Directives and Regulations on food additives, pesticide residues in food, environment and industrial contaminants in food and food contact materials.

The Institute of Public Health provides an important component of the technical support and evidence base for health sector policy in Slovenia. There is one central Institute in Ljubljana and nine regional Institutes.

Health sector policy has the responsibility to ensure the provision of safe drinking water in Slovenia and the basic Act on Drinking Water follows the EU directives. There are some one thousand sources of drinking water for a total population of 2 million and, while the larger towns have good underground water supplies, the major challenge remains maintaining acceptable micro-biological quality, where some 10% of supplies are not compliant with EU levels. Further small scale water suppliers do not have the technical staff required for adequate drinking water surveillance and treatment, and use of septic tanks for sewage is widespread outside the main towns. There are no major geological sources of natural pollution in Slovenia, but in areas of intensive agriculture nitrates may be a potential health problem in drinking water, and pesticide residue slightly elevated above recommended levels. Further there may be some potential exposure
problems from heavy metals run-off, arising from earlier contamination of land through mining or industrial activity, but action is being taken to mitigate these problems.

Management of chemical waste remains an important priority for human health exposure mitigation, including illegal dumping of PCBs and other hazardous substances in previous decades, use of lead mine and smelting wastes in construction materials giving rise to high lead levels in exposed children, mercury mine tailings, and use of asbestos in pipe and roofing materials. Endocrine disrupting chemicals such as phthalates are used widely in many consumer goods in the EU. Among the main air pollutant chemicals of concern are nitrogen oxides and benzene.

The Institute of Public Health provides the toxicological evaluations for the Health regulations of chemicals, such as in relation to food safety and foods of animal origin, and consumer product safety, including cosmetics, toys, food contact materials and cigarettes. Certain goods, such as textiles and furniture are not yet covered but are subject to Chemical Inspection. There is also a rapid alert system for consumer goods provided by the trade inspectorate and by Chemicals inspection within NCB. Toxicological training is also provided through the Institute and the training projects of the NCB. Besides risk assessment, risk communication is also an important activity.
Chemical Safety in the context of Occupational Health and Safety in Slovenia and the Role of the Ministry of Labour, Family and Social Affairs

The SAICM GPA activities of main concern are 2, 3, 11, 12, 13-17, 19-21, 41, 42, 72, 76, 78, 93, 94, 100, 107, 108, 112, 138-149, 153, 155, 167, 169, 232, and 255.

The Ministry of Labour has the responsibility to promote occupational health and safety in cooperation with social partners. Following the adoption of the framework Occupational Health and Safety Act of 1999, which aligned Slovenian legislation with that of the EU, a series of secondary legislation, including that related to chemical safety, was developed and a National Programme adopted in 2003, in consultation with social partners and with broad parliamentary consensus. In the context of the national policy for occupational health and safety the same principles and goals apply for chemical safety in the work place, particularly to diminish occupational accidents and diseases related to the workplace. A subsequent analysis of the implementation of the Programme revealed that timeframes and budgets had not been incorporated, and consequently the Ministry has developed a strategy for realistic action plans, including: promoting occupational health and safety awareness of the public and social partners; mainstreaming occupational health and safety at all levels of education, from primary to university, and including vocational training; encouraging basic and applied research in safety and health, with its timely application; and enhancing the understanding of the benefits of occupational safety and health. Plans indicate the key stakeholders, priorities for action, time frames and indicators of success. A cost benefit assessment tool for use at national and company level is being designed. It is planned to follow implementation of these plans with surveillance and inspection, introducing a system of soft legislation and practical guides for employers and enhancing the institutional role of the labour inspectorate, modernizing routes of communication with online notification of accidents and dangerous incidents in the workplace and occurrences of occupationally related diseases. The Ministry of Labour Website is being enhanced to respond to the needs of consumers. It may be noted that in Slovenia some 96% of enterprises employ less than 5 persons.
Ministry of Agriculture, Forestry and Food, including the Agriculture Advisory Service and the Phyto-sanitary Administration, in Promoting Sound Management of Chemicals

The SAICM GPA activities of specific concern are 3, 6, 11, 23-33, 36, 37, 45, 46, 50-54, 85, 86, 97, 114-117, 155, 158-160, 203 and 223.

Agriculture and fisheries account for about 5% of total GDP in Slovenia, and the average size of the 65,000 active agricultural holdings is 5.6 hectares, where, moreover, farming is the main occupation of only some 5% of those living on farms. Slovenia agricultural policy follows that of the EU and will adapt to the new approaches now under review in the EU to promote environmentally sound and sustainable agriculture, particularly the statutory management requirements and good agricultural and environmental conditions for farming.

The main implications for chemical safety concern pesticides and fertilizers. It may be anticipated that there will be a reduction in the use of pesticides through integrated pest management and other approaches (to be implemented by 2014), more effective use of pesticides by agricultural workers and a reduction of exposure of the population to pesticides, through control of spraying in public areas and reduction in the acceptable pesticide residue levels in food and consumer goods. Similar considerations should also reduce the exposure of populations to chemicals used in animal husbandry. Concerning the use of fertilizers it is anticipated that there will be an increase in organic farming methods. Compared to all farms in Slovenia 2.6% are those who are subject to organic control and 4.8% of all utilised agricultural area are certified as organic. In regard to integrated food production more than 83% of orchards, 54% of vineyards, 30% of vegetable production and 25% of crop production in Slovenia are controlled according to rules of integrated production. A possible increase in use of chemicals may arise from further production of bio-fuels, but Slovenia has a significant potential for the use of bio-waste for energy production.
Disaster Management and Chemical Safety in Slovenia: the Role of the Ministry of Defence and the Administration for Civil Protection and Disaster Relief

The SAICM GPA activities of specific concern are 5, 47-48, 62, 74-79, 102, 137, 155, 198, 203, 211, 221, 233 and 237.

Threats to human health and Slovenia’s natural environment due to disasters include earthquake, flood, landslide, hail, storm, sleet, frost, and fire. The greatest threat with potential ecological consequences because of disasters resulting from industrial activities, transport or urbanisation comes primarily from accidents involving dangerous substances. Many current ecological threats transcend the borders of individual communities or even those of regions or entire countries, and some are global. Appropriate attention must also be given to unexpected population migrations, terrorism, and military threat. Further it must be born in mind that threats of a natural origin may give rise to releases of dangerous substances and involve exposure of human and animal populations. Preparations for disasters in Slovenia at both the local and national level are based on risk assessment and analysis of threats to security.

Regulations adopted after 1992 separated the system of protection against natural and other disasters from the defence system in order to organise it as an integral interdisciplinary activity based on common goals and principles, and to merge all rescue services and other protection, rescue and relief forces into an organisationally and functionally unified system. This opened up new possibilities of extensive co-operation among non-governmental organisations and for the construction and utilisation of uniform, common telecommunications, information, educational and other infrastructures. Formally and legally, prevention became the fundamental guideline and major task of this system, with local communities acting as operation centres.

The system of protection against natural and other disasters is based on the obligation of the state and municipalities to prevent and eliminate dangers and to implement prompt measures in the event of a disaster. It is also based on the obligations of commercial companies, institutions and other
organisations that, within the scope of their activities, are responsible for implementing emergency measures relating to the protection and rescue of people and property, and of individuals for the protection of themselves and their property.

The state and municipalities are responsible for organising protection against natural and other disasters as a uniform and integral national system. The state is mainly responsible for regulating the system, planning development and research activities, organising monitoring, information, alarm and communications systems, organising and preparing national units for protection, rescue and relief, and adopting education and training programs for these units. The municipalities are responsible mainly for the monitoring of possible threat, informing the population, implementing protective measures, developing personal and community protection and organising and training municipal units for protection, rescue and relief. The municipalities also organise and conduct protection, rescue, relief and recovery activities in their respective areas.

Protection against natural and other disasters is financed by the national and municipal budgets and insurance and other funds contributed by commercial companies, institutions and other organisations. Approximately 0.3% of the national budget is allocated for protection against natural and other disasters and municipalities should earmark about 3 per cent of their annual municipal budgets. Protection against fire is partly financed from the fire fund, which is generated from a tax on fire insurance policies.

The Ministry of Defence provides the policy guidance, and has the central role, in disaster management, particularly through the Administration for Civil Protection and Disaster Relief and the fire fighting service, which takes the lead in intervention with the cooperation of the emergency health services where there are exposed persons. Appropriate line Ministries, such as Health, Environment and Transport, are responsible, in consultation with the Ministry of Defence, to undertake their own preparatory activities for prevention of and response to chemical disaster, as well as in relation to rehabilitation and reconstruction following a disaster. The Fire Service consists both of professional and voluntary staff. Concerning chemical accidents, national plans cover all dangerous substances, including combustible materials.
Throughout the country there are 44 intervention units based on the fire service, which can react within 15 minutes of an accident being notified, and operate at three levels as appropriate: municipality, regional where more than one municipality is involved and state level for major chemical accidents and other major accidents on highways, railways or in tunnels. Where an accident involves not yet identified substances there are two specialized mobile units, one in Ljubljana and the other in Maribor that may provide analytical and investigatory support. Additionally, four institutes are available to provide advice and investigatory support concerning biological, veterinary, immunological, radiological and occupational health aspects. For very large accidents, particularly those involving biological, chemical and radiological hazards the Military may provide back up intervention, particularly where decontamination is needed. The Fire Service provides the role of coordination during an intervention, emergency health services undertaking their respective roles. In a large scale event the Civil Protection and Administration provide the coordination. Each Ministry has expertise to advise on protection, intervention and clean up procedures; and each Ministry is responsible for the maintenance of its equipment and timely replacement. Special environmental protection measures are provided to mitigate the impacts of spills on water and soil, such as removal and environmentally sound management of contaminated material for which sub-contracts exit with hazardous waste disposal companies. Additional sampling and surveillance may also be provided.

The EU Seveso Directive is incorporated into Slovene legislation, and concerns some 23 high risk installations and a similar number of low risk companies. Each company is required to prepare an emergency response plan, harmonized with the local municipality or at a regional level if more than one municipality is involved. Simulation and practical exercises are part of the required plans.

Commercial companies, institutions and other organisations must provide conditions that make it feasible to provide personal and group protection for their workers and implement the protective measures required in their place of work. They must provide suitable protection and rescue equipment for this purpose at their own expense. Commercial companies, institutions and other organisations whose work process involves
the use, production, transportation or storage of hazardous substances, petroleum and petroleum derivatives or fuel gases, and which perform activities or are in charge of work equipment which pose the risk that an accident or disaster might occur, must also draw up risk assessment and protection and rescue plans, organise their own protection, rescue and relief units, provide information and alarm systems for their workers and the local population in the event of an accident, and co-finance part of security preparations in the municipality in which they operate, in direct proportion to the extent and level of the hazards caused by their activities.

In the event of industrial accidents with ecological consequences, the Minister of the Environment and Spatial Planning, with the consent of the Minister of Defence, may order that the person or firm that caused the accident or the service responsible provide emergency protection and rescue services and obligatory clean-up of the after-effects of the accident and implement emergency protective measures.

Any individual or organization that intentionally or through extreme negligence causes an event or disaster which incurs costs because of emergency measures taken must cover the costs of intervention, rehabilitation and the restoration of conditions which existed prior to the disaster, and must pay compensation for damages suffered by other individuals or organisations.

A recent capacity assessment of preparedness and response to chemical accidents has been undertaken, particularly as regards available equipment. The recommendations arising from this assessment include the need for: personal protective equipment for emergency medical staff involved with intervention at the time of an incident; decontamination facilities at the site of an incident for exposed persons, including emergency responders, and at hospitals receiving contaminated patients; strengthening of the mobile units providing analytical, investigatory and other facilities for emergency response; and strengthening of health care facilities, including training and education of health care professionals in disaster management. As a result of the assessment the National Poison Control Centre, with logistic support of the Slovenia Armed Forces as may be appropriate, will act as a repository for
antidotes and supplies of emergency medicines under conditions guaranteeing operation under emergency conditions, as well as provide its expertise in substance identification and education of medical personnel.

**Transportation Policy and Chemical Safety in Slovenia**

The SAICM GPA activities of main concern are 22, 99-101, 168, 234 and 248-250.

Transportation policy for Slovenia covers air, rail and road, maritime and inland waterways. First National development programmes for roads and rails were adopted by the National Parliament in 1996. Jurisdiction of Transport of Dangerous Goods was placed under the Ministry of the Interior, with special concern for transport of explosives and radio-active materials; but after 1996 transport by air, rail and waterways moved to the Ministry of Transport. Policies for specific areas are under preparation. Slovenia lies at the cross-roads for both north-south and east-west transit of goods and the transportation policy aims to maximize the socio-economic benefits, such as GDP and employment, while minimizing the potential negative impacts such as environmental. While there are no longer corridors for dangerous goods, there may be prohibited areas due to environmental sensitivity. Depending on the class of materials involved, transport of nuclear materials may require to be accompanied. Since the update of the transport regulations in 2007 dangerous goods are labelled according to the GHS scheme. Neighbouring countries are following EU regulations, but there have been problems concerning the impact of goods transported from further a field, such as radioactive scrap metal in transit from former Soviet Union States. The future may see a small shift in transport from the roads to rail. While for historical reasons, the regulation of transport of dangerous goods is under the responsibility of the Ministry of the Interior, and the current legislation (Act on Transport of Dangerous goods) that has been amended and published in 2006 covers all sectors, the Ministries of Interior and Transport cooperate closely in its implementation. The Ministry of Transport has its own inspection system for surveillance and control of transport regulations. The Ministry of Transport is also involved in emergency planning for chemical accidents.
and other related disasters, working with the Fire Service, Civil Protection and Health Sector (see above). A simulation exercise for an accident near to the country’s nuclear plant has been undertaken and successfully identified the measures needed to be implemented by the transport and related sectors during a major disaster. It might be foreseen that in the future more responsibility for regulation of transportation of dangerous goods will shift to Ministry of Transport.

Role of Education in Promoting Chemical Safety in Slovenia

The SAICM GPA activities of specific concern in relation to the Ministry of Education and Sport are 110, 123, 139, 150, 153 and 154. Those activities of concern to the Ministry of Higher Education, Science and Technology are 8, 83, 98, 106, 150 and 156.

There are two main levels where the formal education system may be involved in promoting chemical safety, namely that of the primary and secondary schools, under the Ministry of Education and Sport, and that of universities and higher education, under the Ministry of Higher Education, Science and Technology.

The role of the Ministry of Education and Sport and in particular that of the National Education Institute, in promoting chemical safety is essential. By updating curricula and by working together with teachers and educators (seminars, study groups, providing advice, expert meetings, and consultations) and by cooperating with various responsible institutions, notably the National Chemicals Bureau, the National Education Institute has been asserting and promoting chemical safety. By updating and modernising curricula for primary schools and grammar schools in 2008, huge headway was made when it comes to chemical safety. Chemical safety was most represented in curricula for such subjects as Chemistry (8th and 9th grade of primary school) and Natural Sciences (6th and 7th grade of primary school), where pupils learn about waste, water, air and soil pollution and dangerous substances. Optional subjects such as Experiments in Chemistry (8th and 9th grade of primary school with the
basics of toxicology) and in Chemistry in certain secondary school programmes, where pupils learn the fundamentals of toxicology e.g. hazard and risk, routes of entry of substances, dose-effect relationships and acute and chronic exposures, as well as how to access databases on chemicals (such as IPCS/INCHEM, Chemical Data Base and KemSol). Some basic objectives and contents in relation to labelling and management of dangerous substances have been incorporated into education efforts within primary and secondary schools. Pupils learn the meaning of hazard symbols and to identify them on products used in daily life, as well as to learn the R and S phrases and understand the significance of protective equipment.

Toxicology has until now featured only to a small extent in existing educational programmes and has been scattered across many subjects in different educational institutions. It is now planned to systematically introduce toxicology/ecotoxicology and other expertise crucial for management of risks caused by chemicals into existing graduate and postgraduate study programmes. Such expertise is crucial for planning and implementing protection measures of human health and the environment against negative effects of chemicals. Employment for students of these programmes could be find in the national administration and other regulatory authorities responsible for different aspects of chemical safety, public institutes, industry and artisan craft using and producing chemicals as well as scientific-research institutions. It is also planned to periodically carry out basic and specialised courses on toxicology/ecotoxicology with the emphasis on regulatory toxicology and human health in order to fill the knowledge gap of staff in administrative bodies, public institutes and related institutions as well as other stakeholders in chemical safety. Further a contemporary interdisciplinary credit points based study of toxicology and ecotoxicology will be introduced into the second and third study levels of higher education, with the emphasis on chemicals impacts on human health. These programmes are financed pursuant to the Higher Education Act\textsuperscript{55} and the Decree on budgetary financing of higher education and other university member institutions from 2004 till 2008\textsuperscript{56}.

\textsuperscript{55} Higher Education Act - Official Consolidated Text, (OJ RS, 100/04 - UPB2)
\textsuperscript{56} Higher Education Act - Official Consolidated Text, (OJ RS, 134/03 - UPB1)
University Education and Government financed research comes under the Ministry of Higher Education, Science and Technology. Universities and Institutes of Higher Education fall under an autonomous Council in which the Ministry has no direct involvement. Ministry of Health could indirectly influence medical education for training of the health sector in relation to chemical safety. Areas of applied research of relevance to chemical safety could be promoted through the cooperation of Ministries of Higher Education, Health and Agriculture, for example in the areas of biomedicine, biological monitoring, chemicals exposure assessment, epidemiology, integrated pest management and reduction in use of artificial fertilizers.

**Role of the Ministry of the Economy in Promoting Chemical Safety**

The SAICM GPA activities of relevance are 43, 44, 55, 73, 84, 98, 118, 122, 127, 157, 170, 171, 182, 186, 190, 191, 193, 205, 226, 232 and 239.

The Ministry of the Economy is concerned with promoting economic development, often through specific sectors such as agriculture, industry, tourism and transport; and also through regional development. The Ministry also promotes internal and external trade. It is a member of the ICCS with a view to being kept aware of the implications for chemical safety either directly or indirectly of the country’s economic policies, including infrastructural programmes that may be implemented through other Ministries.

Slovenia’s Development Strategy of 2005 is an attempt to provide an economic policy, based on sustainable development principles, which includes social, environmental, health, political, legal and cultural issues. In order to implement this policy it is recognised that there is a need for fundamental structural reforms of the economy. The Ministry of the Economy is promoting, *inter alia*,: deregulation and liberalisation of markets, promoting the creation and growth of enterprises, a more flexible labour market, refocusing on individual needs and responsibility, decentralisation and public-private partnerships and focus on sustainable development. In
relation to chemical safety this calls for the promotion of cleaner production, less polluting and less resource intensive technologies, as well as promoting recycling and the use of biodegradable products and alternatives to toxic chemicals, encouraging industry to embrace a culture of compliance. Improved economic instruments for compliance and methods for better assessing the economic impacts of different chemical safety measures as a decision making tool will need to be developed.

The Ministry of Economy is responsible for the design and planning of the general consumer protection policy, supported by its Office for Consumer Protection. The main strategic document in this area is the Resolution on the National Consumer Protection 2006-2010, which contains content relating to chemical safety.

Role of the Ministry of Finance, including the Customs Administration in Promoting Chemical Safety

The SAICM GPA activities of relevance are 170, 171, 204, 205, 218, 226, 234, 239, 261, 263 and 267-271.

The Ministry of Finance is concerned with financial resource allocations, including those for chemicals and waste related activities. The Customs Administration is part of the Ministry of Finance and, besides administering tariffs and duties, is responsible for ensuring that chemicals do not enter or leave the country contrary to government regulations and international agreements. This responsibility also includes the trans-boundary movement of chemical waste and dirty technologies. Training is needed for customs officials to better identify illegal traffic in chemicals and waste. Further legislation may need to be strengthened to reduce such illegal traffic.
Policy for Consumer Protection and the Promotion of Chemical Safety in Slovenia

The SAICM GPA activities of main relevance are 154-155, 163-164, and 206.

Chemical safety is included in the action-strategic document for protecting consumers – the Resolution on the National Programme of Consumer Protection 2006-2010\(^\text{57}\). In recent years the implementation of the programme is operated by the National Chemicals Bureau by conducting among other things awareness campaigns on safe use of chemicals and cosmetic products.

Chemical product safety is also included in the General Product Safety Directive 2001/95/EC, which was implemented in Slovenia with the Act on General Product Safety (Official Gazette RS, no. 101/03). The directive requires that all products intended for consumers that are placed on the market are safe – also chemically safe. Based on this Directive the European Commission has the opportunity to issue a decision on the implementation of certain measures in order to protect consumers from non-safe products.

Beside the regulatory measures described before it is recognized that the role of NGOs in improved consumer awareness needs to be strengthened, particularly in relation to chemicals’ risk reduction, through substitution of chemical products and processes for less toxic ones and chemically safer equipment.

\(^{57}\) Resolution on the National Programme of Consumer Protection 2006-2010, (OJ RS, No. 114/05)
Role of the Chambers of Commerce and Industry, of Trades and Crafts and of Agriculture and Forestry in Promoting Chemical Safety

CHAMBER OF COMMERCE AND INDUSTRY, INCLUDING THE CHEMICALS INDUSTRIES ASSOCIATION


Apart from two large pharmaceutical industries the approximately 90 member companies of the Slovenia Chemical Industries Association are small and medium enterprises (SMEs), and account for about 90% of turnover in the chemicals industry sector. The Association promotes the Responsible Care approach, which, besides an outreach to the public, assists its industry members to fully implement relevant chemicals legislation and notification requirements, providing awareness and expertise, where appropriate (www.responsiblecare.org). Along with the other interested parties the Association plays an important role in the protection against chemical accidents in that they promote the development of safety culture among their members and encourage them to comply with the relevant legislation. Methodological assistance is also provided to companies required to meet broader chemicals related legislation such as the Seveso and IPPC (Integrated Pollution Prevention and Control) Directives and REACH of the EU. The Association is also involved in implementing the European chemicals companies’ cooperative programme International Chemical Environment (ICE)\(^{58}\), which promotes safe transport of goods to and from manufacturing sites and storage locations. The Association is consulted in the process of developing new national legislation, is one stakeholder in the Slovene Intersectoral Committee for Chemical Safety, and works actively with the European Chemicals Industry Association CEFIC to promote their views on new EU legislation. The Association currently is cooperating in the

\(^{58}\) www.cefic.be/activities/logistics/ice/ice-guide.htm
preparations to implement the GHS in Slovenia. The Association is seeing itself as an equal partner in society for implementing sound management of chemicals and waste in Slovenia and in promoting risk reduction linked to the use of chemicals. It is also open to private public partnerships in implementing sound management of chemicals.

Further in contributing towards the implementation of SAICM in Slovenia the Chemical Industries Association is promoting the application of a life cycle approach to the management of chemicals, with the use of BAT and BEP in industry, the development and use of products with lesser risk, or are bio-gradable and readily recycled. The application of the ILO Conventions 170, 174 and 184 is being encouraged as well as that of other Multilateral Agreements relating to sound management of chemicals, following the international developments to reduce exposures to lead, mercury and other highly toxic substances. The protection of employees through appropriate training and use of person protective equipment is encouraged, as well as the making available of information to the public concerning protection of health in relation to chemical products.

In response to the changing economic situation the Association is promoting the increased further training of employees, particularly in cooperation with the Trade Unions. This activity is directed towards motivation of people to be better prepared for employment in this industrial sector. Further, at the level of both primary and secondary education as well as at University, the Association is promoting an increased interest in education in chemistry with a view to encouraging students to select this area of study and subsequently consider employment in this branch of the economy.

SLOVENIAN CHAMBER OF TRADES AND CRAFTS

The SAICM GPA activities of main concern are 22, 84, 118,122, 185, 186, 187 and 241.

The Chamber of Crafts of the Republic of Slovenia represents small enterprises, such as garages, joineries, printers, photocopiers, electroplating workshops, dry cleaner’s commercial shops. There are, however, some
membership overlaps with the Chamber of Commerce and Industry. Often they are family businesses or enterprises with a few employees, having little environmental management or occupational health experience and lacking resources to invest in less polluting, low waste technologies. While legislation is in place covering occupational exposure at such enterprises, as well as emissions, effluents and chemical waste from them, the number of enterprises involved makes systematic inspection a challenge and discharges are relatively small but numerous and widely dispersed. Trade enterprises as producers of waste need to manage hazardous chemicals (including waste chemicals) alone, either by disposing of them (this implies obtaining an adequate authorisation from the Environmental Agency) or handing them over to the registered natural or legal persons in charge of waste management. Some tradecrafts associations organise regular training for their members. Such activities are highly beneficial and should be continued, and if necessary also strengthened. The Chamber of Crafts plays an important role in communication and developing programmes aimed at risk reduction for self employed, young and elderly, and temporary workers; as well as promoting the introduction into production and use of chemicals technologies that reduce exposures to workers, and reduce discharges and chemical waste or improve biodegradability. The Chamber has a special role in promoting the implementation of REACH and GHS among its members.

Along with the other interested parties the Chamber of Crafts plays a pivotal role in the protection against chemical accidents in that they promote the development of safety culture among their members and encourage them to comply with the relevant legislation. Furthermore, they are liable, in collaboration with the Ministry of the Economy, to help enterprises in phasing in cleaner and safer technologies and less hazardous chemicals alternatives. Lastly, nongovernmental organisations should strengthen their role in the comprehensive awareness raising and communication promotion in Slovenia. They could be instrumental in establishing a dialogue among the operators of establishments, installations and drivers who pose a potential risk of chemical accidents on the one hand, and the population at risk of being affected by the prospective chemical accidents on the other.
Established in 1999 under the Agri-forestry Association of Slovenia, the Chamber of Agriculture and Forestry is an umbrella organisation of persons or institutions engaged in agriculture, forestry and fisheries, protecting and representing their interests, providing advice and promoting economic and environmentally friendly activities. As part of their contribution to the implementation of SAICM the organisation will promote the FAO Code of Conduct, the safe use of pesticides, the replacement with less toxic pesticides, the use of appropriate and disposal containers for agricultural chemicals, the correct labelling of agricultural chemicals and their storage in licensed facilities, the use of personal protective equipment, the training in safe handling of pesticides and, as appropriate, the development of Integrated Pest Management activities, including the development of ecologically sound non-chemical alternatives and pest resistant crop variants.

Role of Workers Associations in Promoting Chemical Safety in Slovenia

There are 38 trade union associations in Slovenia, the most important for chemical safety being: trade union for chemical, non-metallic and rubber industry; for health care and social welfare; for metal and electrical industry; for agriculture and food industry; for forestry and timber industry and for craft workers. The main role of the workers associations in
implementing SAICM in Slovenia is the promotion of health and safety in the work place, implementing the ILO safe work standards and guidelines, strengthening preventive measures and where appropriates the correct use of personal protective equipment, through cooperation with employers and training workers. Trades Unions can also support the application of the GHS and cleaner production technologies, safer pesticides and alternative chemicals, Integrated Pest Management programmes, reduction of chemical waste, promote health surveillance programmes.

Role of Scientific Bodies and Professional Associations, particularly the Society of Toxicology and the Poisons Control Centre in Promoting Chemical Safety in Slovenia

The SAICM GPA activities of main concern are 35, 74, 76, 77, 88, 89, 136, 233, 243.

SLOVENIAN SOCIETY OF TOXICOLOGY

The Slovenian Society of Toxicology (SST) was founded on March 15, 2000. SST joined EUROTOX in 2000 and IUTOX in 2001. The Slovenian Society of Toxicology is an independent, voluntary, non-profit organization of professionals working in toxicology. The aims of the SST are to foster and promote the science of toxicology in Slovenia and to facilitate information exchange amongst various fields of toxicology and related disciplines by:

- Following toxicological developments nationally and internationally
- Encouraging advancement of research in toxicology in Slovenia
- Encouraging education in toxicology on all levels in Slovenia
- Organizing lectures, meetings, seminars and conferences
- Liaising with other relevant societies nationally and internationally
- Establishing a national register including the provision of legal expertise
- Providing information and consultation to the general public
- Identifying national toxicological issues and suggesting solutions
The membership of SST is comprised currently of 78 members from academia, health service, public and private research institutes, industry and regulatory authorities. A five-member Executive Committee that is elected every five years at the annual general meeting of the Slovenian Society of Toxicology oversees the Society.

Since February 2001, SST has been listed in the register of the Ministry of Education, Science and Sport as non-governmental scientific organisation acting in the national public health interest.

From the beginning, SST has maintained regular contacts with the Croatian Society of Toxicology and the Hungarian Society of Toxicology. The Slovenian and Croatian Societies now share *Archives of Industrial Hygiene and Toxicology* as their official journal.

In the future, the SST plans to further develop its activities along the lines stated in its Statute, in particular encouraging education in toxicology in Slovenia by actively participating in establishing formal education courses.

As there is an increased demand in toxicological expertise both in industry and in public administration, the SST is taking efforts to apply and to increase knowledge in toxicology in all parts of modern society. In order to assure a high level of safety based on sound toxicological data, SST is supporting high ethic standards of toxicological work performed by their members.

**NATIONAL POISONS CONTROL CENTRE**

Formally established as one of the first institutions of such kind in the Balkan region in 1973, the Clinical Centre/National Poison Control Centre has been focusing mainly on regular, daily clinical treatment of individual patients who have suffered from poisonings either with hazardous industrial chemicals, plant protection products, biocidal products and any other chemicals for general use, medications, alcohol, mushrooms and other poisonous plants and animals.
The National Poison Control Centre is responsible for:

- proving around-the-clock counselling and information service to doctors;
- coordinating national antidote reserves;
- maintaining a record of intoxications in the Republic of Slovenia;
- documentation and information (collection, monitoring and updating of clinically significant data on health of hazardous chemicals, while adjusting its corresponding medical doctrine to the latest developments in science);
- education and training relating to clinical toxicology (annual seminars);
- prevention and research.

The National Poison Control Centre in Ljubljana is an institution of national significance when it comes to medical service response in the event of chemical accidents and is annually treating about 300 patients through its round-the-clock counselling and information service. In addition, it yearly receives around 1200 calls pertaining to poisonings in Slovenia.

The National Poison Control Centre has been charged with performing expert tasks and formulating the health care doctrine for chemical accidents response. The National Poison Control Centre should, in keeping with WHO and European Association of Poison Centres guidelines, be converted into an institution of national significance and organised as an integral part of emergency medical care system. The National Poison Control Centre thus would extend its activities in future to go beyond it’s around-the-clock duty for doctors and would include activities like:

- daily information service for non-medical professionals dealing with chemical safety and needing information on prevention measures as well as on those on intoxications (e.g. in enterprises),
- around-the-clock information service for citizens,
- advisory service as to health care response to major chemical accidents.
Role of Public Interest NGOs in Promoting Chemical Safety in Slovenia

The SAICM GPA activities mainly involved are 6, 47, 73, 76, 101, 112, 122, 158-160, 165, 188, 193 and 206.

The potential for inter-ministerial cooperation and coordination is provided through formally established mechanisms like ICCS and there are forms for consultation among associations representing industry. In the past similar mechanisms to facilitate dialogue and concerted action among NGOs wishing to cooperate in the field of chemical safety didn't exist. For many years NGOs expressed frustration at not being more actively involved by government's policy development and in the implementation of chemical safety activities.

The National Chemical Safety Programme, NCSP Resolution calls for the strengthening of the involvement of NGOs in chemical safety. The strategy of cooperation with NGOs in the field of chemical safety is built on the assumption that is necessary to gain more knowledge about the potential negative impacts arising from the use of chemicals. Manufactures, importers and downstream users need to take responsibility themselves for implementing chemical safety. Consequently, the National Chemicals Bureau made contact with Slovenian NGOs to establish a platform providing a mechanism for cooperation and coordination in the field of chemical safety. The link among NGOs that are active in the field of chemical safety was established to strengthen the function of NGOs. The main goals of this activity are: the promotion of an active role of NGOs in protection of human health and the environment against dangerous chemicals, as well as in awareness raising; the preparation of a strategy for development of NGOs as important stakeholders; creating the common NGOs platform for facilitating the dialogue; increasing the professionalism and transparency of NGOs; improving the opportunities for the acquisition of domestic budgetary and project support and the design of applications for international funds. The NGOs platform with 6 members was established with the strategy for promotion of NGOs role in chemical safety; a unique web domain www.kemijska-varnost.si was created; and coordinator of the platform was designated.
The main functions identified for the platform are to: facilitate dialogue among such NGOs to identify the most important chemical safety problems to which they may contribute with appropriate solutions; facilitate dialogue among NGOs, government departments and administrations and other stakeholders to define chemical safety issues with feasible pragmatic solutions; strengthen the influence of individual NGOs on government departments and administrations. The purpose of NGOs platform is also to stimulate participation in awareness raising activities and trainings for NGOs. The Platform cooperates in the key public events related to chemical safety (such as the Chemical Safety Week). With an active role of NGOs the need for cooperation with other stakeholders will develop, and all those who will be interested working in the area of chemical safety will be invited to join the platform. To guarantee the long-term functioning of the platform in the future, there is a need to cooperate with all relevant government departments and administrations. The long term viability of the Platform will require sufficient resources, which will be needed through internal and external sources. The efficient participation of NGOs will also contribute to an improved transparency of and confidence in public institutions. As the platform gains strength, opportunities for cooperating with the EU and international organizations working in this area will be found, with the greater likelihood of acquiring funding for the platform. Establishing communication between the civil society and public authorities is a major challenge. NGOs represent the link between citizens and the government, only if a sufficiently strong and transparent is a breakthrough guaranteed.
In 1991 when the Republic of Slovenia became independent, the international community was preparing for the Earth Summit with its concern to promote environmentally sustainable development, subsequently enshrined in its Agenda 21 with a specific chapter 19 on chemicals. Further, in the same year an intergovernmental meeting, held in London, proposed the establishment of an intergovernmental mechanism for chemicals risk assessment and management, which was also adopted by the United Nations Conference on Environment and Development in Rio in June 1992. In reflecting the importance of this conference Slovenia has been represented by the Minister President Janez Drnovšek. Moreover, there was an aspiration that Slovenia should become a member of the European Community. The consequent need for this new country to review its administrative and legal infrastructure at a time when, internationally, there was a major effort to implement the concepts of sustainable development, provided the opportunity for taking bold and innovative action. Slovenia recognised the essential role of chemicals in the development process, involving nearly all economic and social sectors, as well as the potential negative impacts on human health and the environment if chemicals were not managed properly. The need for a multi-sectoral approach which considered the use of chemicals in the Slovene society in a holistic way was embraced, and the decision taken to establish a national chemical safety programme for the Republic of Slovenia, with its required administrative infrastructure.
The formal procedure for accession to the European Union was also subsequently initiated, with the systematic review of legislation and procedures for the “Aquis Communautaire”.

In the spirit of the Rio Declaration, with its blueprint for the attaining sustainable development in the 21st century in Agenda 21, and the longstanding experience of the International Community in the field of chemical safety, Slovenia initiated activities to develop an integrated programme for sound management of chemicals through a life cycle approach. The initial activities, predating the formal process to prepare a National Chemicals Profile, involved making a comprehensive assessment of the national infrastructure and capacity, relating to the legal, institutional, administrative and technical aspects of chemicals management, along with an understanding of the nature and extent of chemicals availability and use throughout their life cycle in the country. These activities highlighted the need to involve all stakeholders and an inter-sectoral governmental coordinating mechanism for chemical safety was already established during the period of preparing the National Chemical Safety Programme with its legal mandate. The chemicals act promulgating the Programme also established the administrative infrastructure for implementing the Programme through a NCB in an existing Ministry (Ministry of Health) and legally formalised the inter-sectoral coordinating mechanism. On the basis of these initial activities a National Chemical Safety Programme, with specific priorities and timeframes for action by designated stakeholders, was adopted by the Parliament in 2006. This process also incorporated the requirements for EU accession in the field of chemical safety. Subsequent to the adoption of SAICM each of the 273 activities of the Global Plan of Action were examined as to their relevance for the situation in Slovenia. Revised priorities and timelines have been established in an Action Plan for the implementation of the SAICM which was adopted by the Government and will be incorporated into the forthcoming National Programme for the years beyond 2010. The Government further designates the National Chemicals Bureau (NCB), to coordinate the implementation of SAICM in Slovenia and requires all stakeholders, within their areas of competence and responsibilities and in accordance with their financial and resource constraints, to report progress to NCB for submission to the International Conference on Chemicals Management. The Action Plan for the implementation of SAICM
is sufficiently flexible that it can be adapted and respond to up changes in
priorities and to emerging chemicals management issues. In view of the
difficulties in obtaining a full NGO sector participation in the chemical
safety issues, the NCB established a “platform” where NGOs could meet
regularly and discuss and prepare contributions to the Programme and Ac-
tion Plan, as well as their own roles in implementing SAICM.

In addition to the adoption a National Chemical Safety Programme and
Action Plan for SAICM Implementation a very important step was done by
adoption of the EU Regulation on Registration, Evaluation, Authorisation
and Restriction of Chemicals (REACH). Furthermore, another action plan
is under preparation concerning children in relation to chemical safety. As
to chemicals impact on the environment, annual bio monitoring has been
put into place, and scientific developments will be followed closely, as well
as studies aimed at identifying any harmful consequences of chemicals on
human health and the environment. What is more, appropriate records
will be set up and kept on causalities between certain chemicals and certain
diseases. Safer chemicals management will make a contribution towards a
decrease in the presence of chemicals in organisms and the environment.

All actors (producers, legal entities and individuals placing chemicals on
the market, users and consumers) have been encouraged to be involved in
sound management of chemicals. These common endeavours will lead to
an increase in sound, reliable and safe use of chemicals and their manage-
ment in all stages of their life cycle. Important activities increasing chemi-
cal safety in Slovenia are as follows: strengthening public awareness about
chemicals, introduction of chemical safety in most curricula at all levels of
education and establishing study programmes related to chemical safety.

Despite chemical safety being globally introduced into healthcare and
environmental protection, Slovenia still is seeing a need to play an active
role in improving regional and global chemical safety, taking into consider-
atation the interdependence of health and the environment, and the fact that
leading a healthy life can only be done in a healthy environment, and there-
fore problems related to health and the environment need be addressed in
a harmonised manner.
Lessons from which other countries developing chemicals management programmes for implementation of SAICM might benefit based on the experience of Slovenia are:

(a) Make a good assessment of the situation in the country following a broad based life cycle approach to chemicals and waste (prepare a National Profile) with all stakeholders actively involved in the process from the beginning.

(b) Already in the initial phase of the development process a formal multi-stakeholder platform or mechanism should be established by an act at high political level (e.g. governmental decision) serving as forum for discussions, steering /monitoring and coordination of the multi-sectoral process. Foresee a legal basis for the mechanism and stakeholder designated memberships, with terms of reference, taking into full consideration the multi-sectoral, cross-cutting nature of sound chemicals management and the primary requirement to protect human health, besides the natural and physical environment. In designating the membership of the coordinating mechanism ensure all relevant stakeholders are involved, including those who might need to be involved in subsequent projects and their financing or planning; and keep the membership flexible. For Federal countries, the role of provincial/state governments may be essential in the implementing of SAICM and this level of government needs to be formally involved in the coordinating mechanism. Each institution participating in the coordinating mechanism should be encouraged to ensure participation at sufficiently high level to influence decision making and to ensure stable participation of their representative(s).

(c) On the basis of the assessment made through the National Profile, and of a multi-stakeholder examination of the SAICM Global Plan of Action as to its relevance for the situation in the country, prepare an integrated national chemicals safety programme for the implementation of SAICM, with priorities, stakeholder responsibilities, indicators and time lines; allowing sufficient flexibility for modification as priorities change; and allowing for subsequent integration of new chemicals issues; and ensuring obligation for periodical reporting to the government (e.g. before each ICCM meeting, as a precondition for participation
on the ICCM meeting). Encourage all stakeholders to keep senior decision makers informed of the process and the implications for their sector and thereby promote decision-maker buy-in to the programme.

(d) Establish a legal basis for the adoption of the National Programme, including an administrative infrastructure with budget for its implementation. In consideration of the location of the administrative implementing structure, take into full consideration the multi-sectoral, cross-cutting nature of sound chemicals management and the primary requirement to protect human health, besides the natural and physical environment. Ensure an adequately trained stable core of staffing for the administrative implementing structure, but with the possibility of secondment of staff from other stakeholder institutions, including the private and NGO sectors.

(e) Slovenia found two hindrances to getting full involvement of non-governmental partners. First, the larger scale commercial industrial and agro-pastoral sectors are usually well represented through their trade associations and chambers of commerce, but small and medium sized enterprises, family business and cottage industries are difficult to involve collectively. Information from the SMEs was left to the Associations to cover; but there may be other ways to involve them. Further, the informal sector (black economy) is rarely covered. Secondly, the public interest and professional NGOs are often not well organised to be involved collectively; and the NCB took the initiative to organise a chemical safety “platform”, with its terms of reference and small budget, where such NGOs could meet regularly and provide their views and inputs to the chemical safety formal activities.

(f) All stakeholders should be encouraged to take part in their respective international forum and, as appropriate, regional organisations, in order to present the views of their institution and that of the country and promote implementation of SAICM. As an example Slovenia initiated the process to present through the EU a resolution at the World Health Assembly. Likewise professional NGOs, such as a national society of toxicology could promote SAICM at the International Congresses of their professional bodies.
(g) Special attention is needed to ensure that stakeholders responsible for specific chemicals-related Multilateral Agreements, to which the country is a signatory, report regularly to the Coordinating Mechanism and consult with the SAICM implementing institution concerning relevant issues.

(h) Local levels of government and citizens action groups, with other partners, can play an important role in implementing certain SAICM activities, such as in relation to remedial action for contaminated sites. Consequently, means for officially recognising and encouraging such actions need to be made, such as through appropriate legislation.

(i) Awareness rising, public communication and education should be an integral part of the programme for all the stakeholders.

(j) Resource mobilisation is an important component for effective implementation of SAICM activities and all stakeholders should be expected to have their own local regular budgets, as well as be involved in extra-budgetary fund raising for SAICM related activities.

(k) All stakeholders should be required to report regularly to the coordinating body on progress in implementing their SAICM related activities; and also be involved in regular monitoring.

(l) Considering the usual fluctuations in personnel at all levels in any organisation, attention needs to be given in each stakeholder body to ensuring stability and continuity of efforts both at the level of the activities and work to implement the national chemical safety programme and at the level of the formal coordinating mechanism. With chemical safety being of a complex cross-cutting nature, special attention is required to ensure ongoing commitment and a parallel sustainable process in all the relevant sectors.

(m) Focus in the development and implementation process should be concentrated on a few activities from the SAICM Global Plan of Action which have been identified as a national priority.

(n) Effective indicators of progress need to be developed for each of the main priority activities in order to follow their timely implementation.
## ANNEX 1

### TABLE WITH CONVENTIONS AND AGREEMENTS RELEVANT IN CHEMICAL SAFETY

<table>
<thead>
<tr>
<th>Convention/Agreement</th>
<th>Date of Signature</th>
<th>Date of Ratification</th>
<th>Ministry/Authority responsible for Implementation</th>
</tr>
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<tbody>
<tr>
<td>Codex Alimentarius</td>
<td>17.11.1992</td>
<td>January 1993</td>
<td>Ministry of Agriculture, Forestry and Food</td>
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<tr>
<td>Convention on international civil aviation (The Chicago Convention)</td>
<td>08.04.1954</td>
<td>08.04.1954</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>Agreement on international road transport of dangerous goods and the signing of the protocol on the European agreement on international road transport of dangerous goods (translation according to national implementation regulation)</td>
<td>09.11.1972</td>
<td>17.11.1972</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>International conventions on the prevention of marine pollution by oil and the final act of international conferences on the prevention of marine pollution by oil (translation according to national implementation regulation)</td>
<td>15.11.1973</td>
<td>23.11.1973</td>
<td>Ministry of the Environment and Spatial Planning</td>
</tr>
<tr>
<td>Convention/Agreement</td>
<td>Date of Signature</td>
<td>Date of Ratification</td>
<td>Ministry/Authority responsible for Implementation</td>
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<tr>
<td>Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons, and on their destruction</td>
<td>30.08.1974</td>
<td>07.09.1974</td>
<td>Ministry of Health – Chemical Office of the Republic of Slovenia</td>
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<tr>
<td>International Labour Organization, Convention on benzene, 1971 (No. 136)</td>
<td>23.04.1976</td>
<td>01.05.1976</td>
<td>Ministry of Labour, Family and Social Affairs</td>
</tr>
<tr>
<td>Convention on the protection of the mediterranean sea against pollution, the protocol Ministry of Transport on the prevention of pollution of the mediterranean sea by dumping wastes and other materials from ships and aircraft and the protocol concerning cooperation in combating pollution of the mediterranean sea by oil and other harmful substances in the event of an accident (translation according to national implementation regulation)</td>
<td>04.11.1978</td>
<td>12.11.1977</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<tr>
<td>Convention/Agreement</td>
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<td>Convention on international transport by rail (COTIF)</td>
<td>02.09.1984</td>
<td>02.09.1984</td>
<td>Ministry of Transport</td>
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<tr>
<td>Protocol of 1978 relating to the international convention for the prevention of pollution from ships (translation according to national implementation regulation)</td>
<td>08.02.1985</td>
<td>16.02.1985</td>
<td>Ministry of Transport</td>
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<tr>
<td>United Nation convention on the law of the sea</td>
<td>10.01.1986</td>
<td>18.01.1986</td>
<td>Ministry for Transport</td>
</tr>
<tr>
<td>Protocol to the 1979 convention on long-range boundary air pollution on long-term financing of cooperative programme for monitoring and evaluation of the long-term transmission of air pollutants in Europe</td>
<td>27.02.1987</td>
<td>07.03.1987</td>
<td>Ministry of the Environment and trans-Spatial Planning - Environmental Agency of the Republic of Slovenia</td>
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<tr>
<td>International Labour Organization, asbestos convention 1993 (No. 162)</td>
<td>24.03.1989</td>
<td>01.04.1989</td>
<td>Ministry of Health - Ministry of Labour, Family and Social Affairs</td>
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<tr>
<td>Protocol on the protection of the mediterranean sea against pollution from land (with Annexes I, II and III, translation according to national implementation regulation)</td>
<td>23.02.1990</td>
<td>03.03.1990</td>
<td>Ministry of the Environment and Spatial Planning - Ministry of Transport</td>
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<tr>
<td>Vienna Convention for the Protection of the Ozone Layer (with Annexes I and II)</td>
<td>23.02.1990</td>
<td>03.03.1990</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<td>International Labour Organization, chemicals convention 1990 (No. 170)</td>
<td>04.11.1993</td>
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<td>Ministry of Health, Ministry of Labour, Family and Social Affairs</td>
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<td>Montreal protocol on substances that deplete the ozone layer</td>
<td>29.12.1990</td>
<td>06.01.1991</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<td>Basle convention on the control of transboundary movements of hazardous wastes and their disposal</td>
<td>14.08.1993</td>
<td>15.08.1993</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<td>Protocol of 20 December 990 amending the Convention concerning international carriage by rail</td>
<td>28.02.1994</td>
<td>15.03.1994</td>
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<td>International Labour Organization, convention on prevention of major chemical accidents 1993 (No. 174)</td>
<td>03.01.1997</td>
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<tr>
<td>Protocol amending Articles 1(a), 14(1) and 14(3)(b) of the European agreement on the international carriage of dangerous goods by road of 30 September 1957</td>
<td>09.05.1997</td>
<td>10.05.1997</td>
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<tr>
<td>Convention on the prohibition development, production, stockpiling and use of chemical weapons and on their destruction</td>
<td>07.06.1997</td>
<td>08.06.1997</td>
<td>Ministry of the Economy, Ministry of Defence, Ministry of Interior</td>
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<td>Protocol to the international convention for the safety of life at sea, 1974</td>
<td>07.05.1999</td>
<td>08.05.1999</td>
<td>Ministry for Transport</td>
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<tr>
<td>Rotterdam convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade</td>
<td>22.10.1999</td>
<td>23.10.1999</td>
<td>Ministry for Health – Chemical Office of the Republic of Slovenia</td>
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<tr>
<td>Adjustment and amendment to the Montreal protocol on substances that deplete the ozone layer</td>
<td>22.10.1999</td>
<td>23.10.1999 For Slovenia have come into force on 13. February 2000</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<tr>
<td>Protocols amending the convention on international civil aviation (translation according to national implementation regulation)</td>
<td>25.02.2000</td>
<td>26.02.2000</td>
<td>Ministry of Transport</td>
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<td>Convention/ Agreement</td>
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<td>Stockholm convention on persistent organic pollutants</td>
<td>23.06.2001</td>
<td>04.05.2004</td>
<td>Ministry of Health – Chemicals Office of the Republic of Slovenia, Ministry of the Environment and Spatial Planning</td>
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<td>Cartagena protocol on bio-safety to the convention on biological diversity</td>
<td>22.10.2002</td>
<td>23.10.2002</td>
<td>Ministry of the Environment and Spatial Planning</td>
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<td>Strategic approach to international chemicals management</td>
<td>06.02.2006</td>
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<td>Ministry of Health – Chemicals Office of the Republic of Slovenia</td>
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</tbody>
</table>
ANNEX 2

GLOSSARY OF ABBREVIATIONS
AND ACRONYMS

BAT  Best Available Technology
BEP  Best Environmental Practice
CEE  Central and Eastern Europe
CEFIC European Chemicals Industry Association
CORS Chemicals Office of the Republic of Slovenia
EIA  Environmental Impact Assessment
EU   European Union
EUR  Euro (Currency)
FAO  Food and Agriculture Organisation
GDP  Gross Domestic Product
GHS  Globally Harmonized System of Classification and Labelling of Chemicals
GPA  Global Plan of Action
ICCM International Conference on Chemicals Management
ICCS Inter-Sectoral Committee for Chemical Safety
IFCS Intergovernmental Forum on Chemical Safety
IGO  Inter-Governmental Organisation
ILO  International Labour Organisation
IOMC Inter-Organization Programme for the Sound Management of Chemicals
IPCS International Programme on Chemical Safety
IPPPC Integrated Pollution Prevention and Control
MEA  Multi-lateral Agreement
As an example, SAICM Global Plan of Action activities 154 and 155 are concerned with promoting “public awareness” about chemical safety issues. The opportunity of the Slovenian Presidency of the EU in 2008 was taken to organise an exhibit on chemicals in everyday life, to improve public awareness of the presence of chemicals in all aspects of everyday life and to encourage the public to be wiser in how they are used and handled with care. Additionally the exhibit attempted to improve public understanding of two important risk management activities of the European Community: the EU regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); and the introduction of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

See enclosed pictures and messages of the exhibit “Chemicals in Everyday Life” and the information “Signs of Progress” on the new labels of the Globally Harmonized System GHS as well as statements on personal involvement and actions towards chemicals safety in everyday life “Open Your Eyes”.

59 see the brochure at www.uk.gov.si/en/ in section “legislation and documents” subsection “strategic documents”
There is a lack of data on approximately 60% of the chemicals in the EU market. To address this problem, Europe is taking a global lead through an ambitious and very important programme called REACH. This program seeks to register approximately 30,000 chemicals over the next 11 years. Manufacturers and importers will gradually provide health and safety information on their substances, which is the first prerequisite for safe use. The second prerequisite for safe use of chemicals is on you as the user. Chemical safety is in your hands.
SMILE PLEASE
Chemical antibiotics have helped Europeans live longer and healthier lives over the last 50 years. However, excessive and inappropriate use of antibiotics has contributed to the development of resistant and vigorous micro-organisms, resulting in 3 million hospital-acquired infections and 50,000 deaths per year in the EU25. You need to use antibiotics carefully and according to prescriptions to preserve their effectiveness.
THE FOOD CHAIN

Although plant protection products help increase yields and protect crops from pests, weeds and plant diseases, they can also have detrimental effects on human health and the environment. New European legislation therefore introduces more rigorous bans and restrictions on several pesticides. Due to their mode of application, only limited amount of such products reaches the unwanted target organisms – the rest ends up in the environment and in the food chain. Whatever the size of your farm or garden, you as the user are responsible for pesticides being used correctly and effectively.
SAFETY AT WORK

In the EU every year almost 50,000 deaths can be attributed to hazardous substances at work. Chemicals are present in almost every workplace – sometimes exposure is not problematic, sometimes it is indirect and hidden, and sometimes it can be direct and very risky without proper personal protection. Safe practice calls for proper labelling of chemicals, the provision of safety information, clear work procedures, training and personal protective equipment. Know the chemicals that you work with and protect yourself properly.
KEEP OUT

It is estimated that accidental poisonings from various causes, including chemicals, annually claim the lives of almost 2,000 children under age 15 in Europe. It is estimated that safe storage of chemicals and the use of childproof containers for chemicals and pharmaceuticals in bathrooms or other places could reduce poisoning deaths in children under 5 by 50%. Keep chemicals tightly closed and out of reach of children. Do not allow them to play with packaging containing dangerous chemicals.
WILD GROWTH

Children face a much higher risk from exposure to chemical contaminants than adults because children absorb toxic chemicals in food, air and water more efficiently, and they process and eliminate them more slowly. Relative to their size, children breathe twice as much air, eat 3 to 4 times more food, and drink approximately 7 times more water than adults, and so they are at greater risk. Educate and protect your children, your family and yourself.
Non-Stop Action

Chemicals do not only come in labelled bottles. Manmade chemicals are found everywhere – from soap and paint, to furniture and cars, and more. As soon as a new chemical reaches the market, it begins its path towards eventually entering the environment and the human body. We take chemicals in through food and water, the air we breathe and the cosmetics on our skin. Many of them end up in our blood and tissues and our bodies can not always get rid of them easily. Inform yourself. Ask questions. Share information.
The average European is bombarded with hundreds of promotion images every day, many of these related to beauty products – cosmetics, toiletries and perfumes are an important part of our daily lives. However, these products also contain chemicals and need to be checked for safety before marketing. Authorities and industry devote special attention to the development and validation of effective alternatives to animal testing to minimize the suffering of animals. Think of your real needs before buying and make an informed choice.
HERE WE GO
By intending to do good we sometimes create harmful side effects. Any misuse of chemicals has serious consequences for our health and the environment, causing a “boomerang” effect – sooner or later everything comes back to you. Learn about yourself – count all the chemicals you deal with and depend on every day. Check which ones are helpful and which are harmful, and follow the directions for use. Clean out your home – decide which products you really need, which can be replaced and which are out of date. Handle them all with care.
NOT ON THE MENU
Additives make our food taste better, look more colourful and last longer. However, surveys show that there is a great deal of concern about the safety of food additives. The European Food Safety Authority is currently re-evaluating the safety of additives authorised in the EU on a case-by-case basis. Know what you eat – read the labels and buy fresh products rather than processed foods.
RED LIGHT
More people in Europe die from traffic-related pollution than from traffic accidents. Air pollution caused by ever-increasing traffic poses serious threats to our health. Those most at risk on the road are not necessarily the ones we would expect, such as cyclists, but are in fact those sitting in their cars stuck in traffic. More walking and cycling can reduce pollution and improve everyone’s health, followed by the use of public transport whenever possible. Use your own car only when there is no other choice, and share your car with others to reduce emissions.
Fashionable products with a short lifespan have created a rapidly growing waste problem. Electronic waste, for example, is toxic waste. If disposed of properly, it is a valuable source of secondary raw materials. If not, it is a long-lasting source of toxins and carcinogens. The same is true for most products containing toxic chemicals and for chemicals as such. Due to REACH, the most toxic substances will be gradually replaced by safer alternatives. Do not dump chemicals or electronic equipment. Dispose of them properly in line with the law.
LOVE YOU
Plastic is also made of chemicals – bottles, shopping bags, disposable coffee cups and gift wrapping usually serve you for only a short period of time but need decades to decompose. Various products can release toxic ingredients or their even more toxic metabolites while decomposing. Show your love for the environment and your health by reducing, reusing (when safe) and recycling. Do not litter. Think before buying. Buy only what you need and in the reasonable amounts.
SIGNS OF PROGRESS

GHS is the Globally Harmonized System of Classification & Labelling of Chemicals

The new GHS regulation is introducing globally harmonized information on the labelling of chemicals according to their intrinsic properties. This information scheme was adopted in December 2008 and will be practically introduced until 2010 for substances and until 2015 for chemical mixtures.

The benefits are obvious! This will enable users of chemicals all over the world to obtain clear information on the hazards of all chemicals placed in the market.

It is important for you to read the label elements and learn the new symbols so that you can handle chemicals more safely.

The GHS is different from the current EU system:
• It defines additional hazard classes and categories.
• It classifies certain hazards in more than one class.
• It partly uses other criteria and other cut-offs for classification.
• It uses a different approach for classification of mixtures.
• It changes some labelling elements.
OPEN YOUR EYES
Almost everything has to do with you.

LEARN ABOUT YOURSELF
Count all the chemicals you deal with and depend on everyday. Decide which are helpful and which are harmful.

FIND OUT WHERE YOU LIVE
Learn about the chemical safety of your home and community; its air, food and water.

CLEAN OUT YOUR HOME
Which products do you really need? Which can be replaced? Which are out of date?

USE CHEMICALS WISELY
Follow directions for use. Handle and manage chemicals with care.

MINIMISE DAMAGE

THINK BEFORE BUYING

PROTECT THE VULNERABLE
Protect children and pregnant women. Protect water supplies. Protect nature. Protect wildlife.

GET INVOLVED
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