

1 INTRODUCTION

1.1 Background

The use of chemical products to enhance and improve life is a widespread practice worldwide.¹ Alongside this benefit there exists the potential for adverse effects on people and the environment. As a result, a number of countries or organisations have developed laws or regulations over the years that require information to be prepared and transmitted to those using chemicals, through labels and/or Safety Data Sheets (SDS). Provision of information gives those using chemicals the identities and hazards of these substances, and allows the appropriate protective measures to be implemented. Given the large number of chemical products available, individual regulation of all of them is not possible.

While existing laws or regulations for hazard communication are similar in many respects, their differences are significant enough to result in different labels or SDS for the same product in different countries. Decisions on when or how to communicate hazards on a label or SDS thus vary around the world, and companies wishing to be involved in international trade must have a significant complement of expert staff who can follow the changes in these laws and regulations and prepare different labels and SDS. In addition, given the complexity of developing and maintaining a comprehensive system for classifying and labelling chemicals, many countries have no system at all.

Given the reality of the extensive global trade in chemicals, and the need to develop national programmes to ensure their safe use, transport, and disposal, it was recognised that an internationally harmonised approach to classification and labelling would provide the foundation for such programmes. Once countries have consistent and appropriate information on the chemicals they import or produce in their own countries, the infrastructure to control chemical exposure and protect people and the environment can be established in a comprehensive manner.

The reasons for international harmonisation in this area were the following, to:

- Enhance the protection of human health and the environment by providing an internationally comprehensible system for hazard communication;
- Provide a recognised framework for those countries without an existing system;
- Reduce the need for testing and evaluation of chemicals; and
- Facilitate international trade in chemicals whose hazards have been properly assessed and identified on an international basis.

In developing a harmonised system the primary task was to find ways to adopt the best aspects of existing systems. This was done by developing a system based on agreed principles of harmonization as set out below:

- The level of protection offered to workers, consumers, the general public and the environment should not be reduced as a result of harmonising the classification and labelling systems;
- The hazard classification process refers principally to the hazards arising from the intrinsic properties of chemical elements and compounds and mixtures thereof, whether natural or synthetic;
- Harmonization means establishing a common and coherent basis for chemical hazard classification and communication, from which the appropriate elements relevant to means of transport, consumer, worker and environment protection can be selected;
- The scope of harmonization includes both hazard classification criteria and hazard communication tools, e.g. labelling and chemical SDSs, taking into account especially the four existing systems identified by the International Labour Organisation (ILO);
- Changes in all these systems will be required to achieve a single globally harmonised system; transitional measures should be included in the process of moving to the new system;

¹ *Globally Harmonized system of Classification and Labelling of Chemicals (GHS)*, UN Document ST/SG/AC.10/C.4/2002/16, Oct. 2002

- The involvement of concerned international organisations of employers, workers, consumers and other relevant organizations in the process of harmonization should be ensured;
- The comprehension of chemical hazard information, by the target audience, e.g. workers, consumers and the general public should be addressed;
- Validated data already generated for the classification of chemicals under the existing systems should be accepted when reclassifying these chemicals under the harmonised system;
- A new harmonised classification system may require adaptation of existing methods for testing of chemicals; and
- In relation to chemical hazard communication, the safety and health of workers, consumers and the public in general, as well as the protection of the environment, should be ensured while protecting confidential business information, as prescribed by the competent authorities.

1.2 Development of the GHS

The Globally Harmonised System of Classification and Labelling of Chemicals (GHS) is the culmination of more than a decade of work. Many individuals were involved, from many countries, international organizations, and stakeholder organizations. Their work spanned a wide range of expertise, from toxicology to fire protection, and ultimately required extensive goodwill and the willingness to compromise, in order to achieve this system²

The work began with the premise that existing systems should be harmonised in order to develop a single, globally harmonised system to address classification of chemicals, labels, and safety data sheets. This was not a totally novel concept since harmonization of classification and labelling was already largely in place for physical hazards and acute toxicity in the transport sector, based on the work of the United Nations Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods (UNCETDG). However, harmonization had not been achieved in the workplace or consumer sectors. Furthermore, transport requirements in countries were often not harmonised with those of other sectors.

The international mandate that provided the impetus for the compilation of this work was adopted in the 1992 United Nations Conference on Environment and Development (UNCED). The work was coordinated and managed under the auspices of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) Coordinating Group for the Harmonization of Chemical Classification Systems (CG/HCCS). The technical focal points for completing the work were the ILO; the Organization for Economic Cooperation and Development (OECD); and the United Nations Economic and Social Council's Sub Committee of Experts on the Transport of Dangerous Goods (UN SCETDG).

When the work was completed in 2001, the outcomes were transmitted by the IOMC to the new United Nations Economic and Social Council's Sub-Committee of Experts on the Globally Harmonised System of Classification (UN SCEGHS). The Committee's first task was to make the GHS available for worldwide use and application. The World Summit on Sustainable Development (WSSD) encouraged countries to implement the new GHS as soon as possible with a view to having the system fully operational by 2008. Availability of information about chemicals, their hazards, and ways to protect people, will provide the foundation for national programmes for the safe management of chemicals. Widespread management of chemicals in countries around the world will lead to safer conditions for the global population, while allowing the benefits of chemical use to continue. Harmonization will also have benefits in terms of facilitating international trade.

² *Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonised System of Classification and Labelling of Chemicals*, Sub-Committee of Experts on the Globally Harmonised System of Classification, and Labelling of Chemicals, Documents ST/SG/AC.10/C.4/2002/1 and ST/SG/AC.10/C.4/2002/16/Add, Fourth session, 9-11 December 2002, Agenda Item 2, UN Secretariat.

1.3 Scope of the GHS

The scope of the GHS is based on the mandate from the 1992 UNCED to develop of such a system set out in Agenda 21, Chapter 19:

"26. Globally harmonised hazard classification and labelling systems are not yet available to promote the safe use of chemicals, inter alia, at the workplace or in the home. Classification of chemicals can be made for different purposes and is a particularly important tool in establishing labelling systems. There is a need to develop harmonised hazard classification and labelling systems, building on ongoing work;

27. A globally harmonised hazard classification and compatible labelling system including material safety data sheets and easily understandable symbols, should be available, if feasible, by the year 2000."

This mandate was later analysed and refined in the harmonization process to identify the parameters of the GHS. As a result, the following clarification was adopted by the IOMC Coordinating Group to ensure that participants were aware of the full scope of GHS:

"The work on harmonization of hazard classification and labelling focuses on a harmonised system for all chemicals, and mixtures of chemicals. The application of the components of the system may vary by type of product or stage of the life cycle. Once a chemical is classified, the likelihood of adverse effects may be considered in deciding what informational or other steps should be taken for a given product or use setting. Pharmaceuticals, food additives, cosmetics, and pesticide residues in food will not be covered by the GHS in terms of labelling at the point of intentional intake. However, these types of chemicals would be covered where workers may be exposed, and, in transport if potential exposure warrants. The CG/HCCS recognizes that further discussion will be required to address specific application issues for some product use categories which may require the use of specialized expertise."

1.4 International programmes

1.4.1 Bahia Declaration

The Bahia Declaration was adopted at the third Forum meeting of the Intergovernmental Forum on Chemical Safety (IFCS) held in Salvador da Bahia, Brazil, October 2000, where a number of goals were agreed for the safe management of chemicals. The targets agreed by the IFCS in Bahia were endorsed by the Johannesburg Plan of Implementation agreed to at the WSSD (September, 2002). The following actions in terms of the Bahia strategic actions are currently being undertaken in South Africa:

- The Rotterdam and Stockholm Conventions have been ratified;
- The preparation of a National Profile on chemicals management which will form the basis of the national coordination for the sound management of chemicals. Formulation of additional national strategies to deal with Bahia targets will commence after the completion of the National Profile;
- A special unit has been set up in DEAT to implement a system aimed at preventing major industrial accidents, and systems for emergency preparedness and response;
- The process of preparing a National Implementation Plan (NIP) in terms of the Stockholm Convention has been initiated; and
- The implementation of the GHS.

1.4.2 World Summit on Sustainable Development

The Plan of Implementation adopted by the WSSD in September 2002, and subsequently endorsed by the UN General Assembly, gave strong support to international efforts in the area of chemicals and hazardous wastes. The Summit agreed in its report to prevent and minimize waste and maximize reuse, recycling and use of environmentally friendly alternative materials, with the participation of government authorities and all stakeholders, in order to minimize adverse effects on the environment and improve resource efficiency, with financial, technical and other assistance for developing

countries. This includes actions at all levels to renew the commitment, as advanced in Agenda 21, for sound management of chemicals throughout their life cycle and of hazardous wastes, for sustainable development, as well as for the protection of human health and the environment, *inter alia*, aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent science-based risk management procedures, taking into account the precautionary approach, as set out in Principle 15 of the Rio Declaration on Environment and Development, and support developing countries in strengthening their capacity for the sound management of chemicals and hazardous wastes by providing technical and financial assistance.

This would include actions at all levels to:

- Promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste, including the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade so that it can enter into force by 2003 and the Stockholm Convention on Persistent Organic Pollutants (POPs) so that it can enter into force by 2004, and encourage and improve coordination as well as supporting developing countries in their implementation;
- Further develop a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action beyond 2000 of the Intergovernmental Forum on Chemical Safety by 2005, and urge that the United Nations Environment Programme, the Intergovernmental Forum, other international organizations dealing with chemical management and other relevant international organizations and actors closely cooperate in this regard, as appropriate;
- Encourage countries to implement the GHS as soon as possible with a view to having the system fully operational by 2008;
- Encourage partnerships to promote activities aimed at enhancing environmentally sound management of chemicals and hazardous wastes, implementing multilateral environment agreements, raising awareness of issues relating to chemicals and hazardous waste and encouraging the collection and use of additional scientific data;
- Promote efforts to prevent international illegal trafficking of hazardous chemicals and hazardous wastes and to prevent damage resulting from the trans-boundary movement and disposal of hazardous wastes in a manner consistent with obligations under relevant international instruments, such as the Basel Convention on the Control of Trans-Boundary Movement of Hazardous Wastes and Their Disposal;
- Encourage development of coherent and integrated information on chemicals, such as through national pollutant release and transfer registers (PRTRs); and
- Promote reduction of the risks posed by heavy metals that are harmful to human health and the environment, including through a review of studies, such as the United Nations Environment Programme global assessment of mercury and its compounds.”

1.4.3 United Nations Environment Programme on Chemical Safety Issues

UNEP Chemicals is currently assisting some 45 countries to develop their Stockholm Convention NIPs through Global Environmental Facility (GEF)-funded enabling activities, and is working with a further dozen countries to develop project proposals. These projects are part of a rapidly growing portfolio of GEF projects on POPs and persistent toxic substances valued at over \$40 million. South Africa is currently in the process of initiating projects for the development of a NIP for the Stockholm Convention and its participation in the African Stockpile Programme (ASP).

1.4.3.1 Rotterdam and Stockholm Conventions

UNEP provides the secretariats for the Stockholm Convention on Persistent Organic Pollutants and, jointly with the Food and Agriculture Organization of the United Nations (FAO), for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. These secretariats, as well as UNEP support for these treaties fall under the umbrella of UNEP Chemicals, which also facilitates close cooperation with the secretariat of the Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and Their Disposal. These convention activities, including many undertaken in partnership with the GEF, are a

central part of UNEP Chemicals' broader efforts to facilitate improvements in chemical safety around the globe.

1.4.3.2 Capacity Building for Chemical Safety

UNEP has an active and growing programme to help countries build their capacities to manage chemicals safely. The general approach is to provide awareness raising and training for key chemical safety elements, usually in support of the Rotterdam or Stockholm Convention, then to follow up the training with country-based projects to help individual countries integrate the training into their health and environmental protection programmes. During 2002 alone, UNEP Chemicals held 112 meetings and capacity building workshops, bringing together Governments, member organizations of the IOMC, the IFCS, industry and other non-governmental organizations (NGOs), to address chemical safety issues. These activities respond to the call for strengthening UNEP capacity building made in the report of the Open-Ended Intergovernmental Group of Ministers or Their Representatives on International Environmental Governance that was endorsed by the Governing Council at its seventh special session in February 2002.

1.4.4 IOMC Strategic Approach to International Chemicals Management

The UNEP Governing Council at its 7th Special Session/Global Ministerial Environment Forum in February 2002 decided that "there is a need to further develop a strategic approach to international chemicals management and endorses the IFCS Bahia Declaration and Priorities for Action beyond 2000 as the foundation of this approach."

The WSSD in its "Action for Implementation" confirmed this mandate to further develop a strategic approach by 2005 and urged that UNEP, IFCS, other international organizations dealing with chemicals management, and other relevant international organizations and actors to closely cooperate in this regard, as appropriate. A strategic approach will cover a broad range of policy coordination and capacity building. A systematic process of reviewing existing activities, identifying gaps and proposing concrete priorities and projects is stipulated in the UNEP GC decision.

The UNEP Governing Council for the Global Ministerial Environmental Forum met in Nairobi in February 2003 to consider and approve, amongst others, the draft decisions the Contact Group on Chemicals. The issues covered include:

- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- The Stockholm Convention on Persistent Organic Pollutants;
- Lead;
- A Strategic Approach to International Chemicals Management; and
- The Mercury Programme.

These decisions will enable UNEP to maintain its contribution in these areas at an appropriate level. Work on some other matters covered in the Plan of Implementation is being led by UNEP partner organizations. Examples include: the GHS and the PRTs which are the subjects of teamwork by IOMC organizations. Beyond this, there are a number of objectives included in the Plan Implementation, for which the Governing Council may wish to mandate an enhanced UNEP response. These might include: the further strengthening of UNEP capacity building Programmes for developing countries and countries with economies in transition in the field of chemical safety; the intensification of efforts to improve coordination and synergies between chemicals and hazardous wastes activities and, the continuous assessment of risks to human health and the environment posed by hazardous chemicals.

1.4.5 ILO Research at UCT

Hazard Communication strategies can play a key role in preventing work-related and environmental causes of morbidity and mortality in relation to chemicals. However, the effectiveness of such strategies, particularly in developing countries, is often assumed without empirical evidence of such efficacy. Indeed, there is evidence that many strategies for hazard communication perform poorly in settings outside of those developed countries where such strategies were developed. For example non-availability or incompleteness of SDSs in developing countries have been noted.

Research undertaken by University of Cape Town (UCT) to evaluate the effectiveness of different strategies and the relative effectiveness of different ways of implementing hazard communication strategies, therefore offers important opportunities to improve the impact of hazard communication with benefits to workers, employers and communities. The project took place in the context of global efforts to improve the safe management of chemicals through bodies such as the UN and the ILO, in the context of an increasingly demanding expansion and globalisation of trade relations involving chemicals. It contributed toward the IOMC efforts on focusing on the harmonisation of hazard classification and hazard communication regarding chemicals, with a view to establishing an agreed international system that can support safe practices underlying any trade in chemicals internationally.

A testing instrument on comprehensibility was developed at the request of the Working Group on Harmonisation of Hazard Communication. The UCT drew on the expertise from the United States of America (USA), Canada, Kenya, Zimbabwe, Australia and Costa Rica, as well as other experts in adult education, social marketing and occupational safety training in South Africa. It addressed the following aspects:

- Development of simple tests to assess the comprehensibility of information on labels: Symbols, pictograms (in this context symbols with the use of different colour combinations and patterns), signal words, hazard statements, precautionary statements and the use of these elements in combination;
- Development of simple tests to assess whether the label appearance has any impact on comprehensibility, including label size, shape, placement of information, symbol size, and font appearance and size;
- Development of tests to assess the ease with which hazard information can be readily identified from the SDS; and
- Development of a Guidance Document for those undertaking the tests, including:
 - instructions on carrying out the tests;
 - selection of appropriate populations in whom to conduct the tests; and
 - assessment of the results of the tests.

The UCT has piloted the ILO/UCT methodology in Zambia and subsequently in South Africa.

1.4.6 Basel Convention

The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal main objectives are the reduction of the production of hazardous waste and the restriction of trans-boundary movement and disposal of such waste. It also aims to ensure that any transboundary movement and disposal of hazardous waste, when allowed, is strictly controlled and takes place in an environmentally sound and responsible way. Locally, draft regulations are in preparation in an effort to control the movement of such waste.

Improved international cooperation has resulted in better control of hazardous waste movements and complete transparency in cases where such movements do occur. The ban on hazardous waste movements from OECD countries to non-OECD countries for final disposal and recycling become effective in 1998, but have not been ratified by a sufficient number of parties.

South Africa ratified the convention in May 1994 and DEAT coordinates its implementation in South Africa. Provinces serve on an Interdepartmental Basel Committee and must agree to any application for the importation of hazardous waste before permission is granted by DEAT.

1.4.7 UN Sub-Committee of Experts on the GHS

The UN Sub-Committee of Experts on the GHS (UN SCEGHS) is a policy body that maintains existing and develops new technical elements of the GHS, as appropriate, and makes proposals for work and policy decisions to its parent committee, the UN Committee of Experts on the Transport of Dangerous Goods and the GHS. Proposals include the provision of technical guidance to countries and organizations with regard to the further development of the GHS and its implementation. UNITAR/ILO have been designated as the focal point for capacity building. South Africa is represented on the UN SCEGHS, which meets twice per year.

It is expected that the Economic and Social Council of the UN (ECOSOC) will formally endorse the GHS in 2003³. The ECOSOC Subcommittee of Experts on the GHS, which meets twice-yearly and is responsible for the maintenance, updating and promotion of the new system, adopted the GHS in December 2002.⁴

1.4.8 GHS and the Intergovernmental Forum on Chemical Safety (IFCS)

In October 2000, the third session of the IFCS highlighted the harmonization of classification and labelling of chemicals as one of its Priorities for Action Beyond 2000. In particular, the IFCS agreed that

“guidance and other tools necessary for the implementation of the GHS should be made available to interested parties prior to Forum IV. All countries are encouraged to implement the GHS as soon as possible with a view to have the system fully operational by 2008”.

As a contribution to the discussions, UNITAR and the ILO tabled a paper outlining potential elements of a global GHS capacity building strategy, comprising global and regional awareness-raising as well as country-based GHS capacity building activities.

1.4.9 The UNITAR/ILO GHS Training and Capacity Building Programme

Implementation of the GHS will require strengthening, updating or establishing appropriate legislation compatible with other international instruments such as the ILO Chemicals Convention 170 and Rotterdam Convention. Developing countries and countries with economies in transition are likely to face particular challenges in implementing this new global standard.

The UNITAR/ILO GHS Capacity Building Programme was established in 2001 and operates within UNITAR's Training and Capacity Building Programmes in Chemicals and Waste Management. It supports national GHS action plans, regional workshops, and develops and pilots GHS training material. The Programme receives technical advice from a Programme Advisory Group (PAG) which includes representatives from several countries and organizations involved in GHS development and implementation. UNITAR/ILO provide regular updates of Programme activities to the UN SCEGHS. South Africa is represented on the PAG.

In order to take advantage of the time prior to the formal adoption of the GHS, country-based pilot projects were initiated in Zambia and South Africa in 2001 with support of the Government of the Netherlands. Related GHS projects are also concluding in Senegal and Sri Lanka with support of the Government of Switzerland. These country-based projects provide an important testing ground to review draft-versions of chemical hazard communication and GHS-related guidance and training material, as well as provide important feedback to the international community regarding opportunities and challenges associated with GHS implementation in developing countries and countries with economies in transition. In addition, a first regional GHS workshop for SADC countries is planned for September 2003 and a special GHS side event at IFCS Forum IV will take place in November 2003.

1.4.10 WSSD and Global GHS Capacity Building Partnership

The World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa during August/September 2002, confirmed the 2008 IFCS goal in its Plan of Implementation. Paragraph 23(c) of the plan states that actions be taken at all levels to “encourage countries to implement the new globally harmonized system for the classification and labelling of chemicals as soon as possible with a view to having the system fully operational by 2008.”

The Global GHS Partnership is a WSSD-endorsed framework which brings together countries and organizations committed to supporting specific GHS capacity building activities in developing and transition countries. UNITAR and ILO initiated the partnership, in collaboration with the OECD. The Partnership pursues concrete objectives and targets for GHS capacity building activities at the global, regional and national levels and Partners work together to mobilize resources to reach these targets

³ More information about the GHS can be obtained from the Secretariat (UNECE) of the UN Subcommittee of Experts on the GHS at: <www.unece.org/trans/danger/publi/ghs/ghs.html>.

⁴ UNITAR/ILO have been designated as the focal point for capacity building within this Subcommittee.

The first meeting of Partner is scheduled to take place in July 2003 in Geneva and South Africa will be participating in this meeting.

1.5 Regional Programmes

1.5.1 NEPAD Environmental Initiative

The New Partnership for Africa's Development (NEPAD) recommends the development and adoption of an environmental initiative, a coherent action plan and strategies, to address the regions environmental challenges while at the same time combating poverty and promoting socio-economic development. The Action Plan provides an appropriate framework for the establishment of a strong partnership for the protection of the environment between Africa and its partners based on the commitments contained in the United Nation Millennium Declaration.

A coherent, strategic and long-term programme of action has been proposed to promote Africa's sustainable development. The plan is organised in clusters of programmatic and project initiatives to be implemented over an initial period of ten years. One of the major cross-cutting issues which the plan addresses is that of health and environment. The objectives of the activities to be undertaken under this programme area of the Action Plan aim to assist African countries to implement their common commitments under chemical related conventions. This may include the following:

- Strengthening of institution arrangements and technical infrastructure for Chemicals Management;
- Assisting with the implementation of the objectives of the Rotterdam, Stockholm and Basel conventions;
- Developing policies to monitor chemical trade and movements;
- Improving public awareness raising of chemical hazards; and
- Providing user training.

The Environmental Action Plan is considered to be a living document and will be reviewed by the African Ministerial Conference on the Environment (AMCEM) in order to adjust in to the changing needs and circumstances. It will be implemented in harmony with the other components of NEPAD. Appropriate implementation mechanisms as well as adequate financial resources will be required.

The process of developing an Implementation Action Plan is well under way. A range of thematic workshops is being held to develop the various elements of the plan. The workshop on Health and the Environment was held in Dakar in February 2003. These workshops will be followed by steering committee meetings that will consider the outcomes of the workshops and prepare and recommend a draft plan of implementation for consideration by AMCEM in June 2003, the Heads of State of the African Union in July 2003, and Donors in December 2003.

1.5.2 SADC Code of Practice for the Safe Use of Chemicals

The Southern African Development Community (SADC) has developed a Code of Practice for the Safe Use of Chemicals by its member states. The objective of the Code is to provide guidance to member states on the following:

- The basic standards for the safe use of chemicals;
- A framework for inspection and enforcement of those standards;
- A framework for communication, information, networking and training in the safe use of chemicals;
- Ensuring that all chemicals for use at work, are evaluated to determine their hazards;
- Ensuring that employers are provided with a mechanism for obtaining their suppliers information about the chemicals used at work to enable them to implement effective programmes to protect workers from chemical hazards;
- Providing workers with information about the chemicals at their workplace and about appropriate preventative measures to enable them to participate effectively in safety programmes;
- Establish the principles for such programmes to ensure the safe use of chemicals; and

- Making special provision to protect confidential information whose disclosure to a competitor would be liable to cause harm to an employers' business so long as the safety and health of workers are not compromised thereby.

1.5.3 SADC Protocol on Transport, Communications and Meteorology

South Africa is a signatory to the SADC Protocol on Transport, Communications and Meteorology in the SADC Region, which came into effect in August 1996. The protocol recognises that transport, communications and meteorology functions have a regional and global character and are a prerequisite for the promotion of economic growth and development and the improvement of the quality of life and social interaction of all their citizens within the region, continentally and internationally.

Member States undertook to engage all stakeholders in giving effect to this Protocol by promoting the various strategic goals, including the integration of regional transport, communications and meteorology networks to be facilitated by the implementation of compatible policies, legislation, rules, standards and procedures; as well as effective environmental management with due consideration of relevant international and regional conventions. The Protocol forms the umbrella for regional co-operation on GHS and the safe management of chemicals.

1.5.4 SADC Regional Co-operation on GHS

A sub-regional workshop has been proposed for SADC countries to discuss their experiences with chemical hazard communication and to consider concrete measures related to GHS implementation in the region. The workshop is scheduled to take place in Livingstone, Zambia in September 2003.

The main goal of the workshop will be to raise awareness about the GHS amongst SADC countries and to develop a SADC project proposal for countries that wish to undertake further work in this area, consistent with national circumstances and priorities. Experiences to-date, existing guidance and other resources will be discussed, as will current capacity building activities. Gaps and weaknesses will be identified and solutions suggested.

Other objectives of the workshop include, *inter alia*:

- Consider modalities for evaluating the effectiveness of the current labels and symbols on a SADC-wide basis, if possible;
- Reflect on the importance of GHS implementation in SADC in relation to economic and social impacts and its benefits;
- Explore possible partnerships with other African countries and beyond, within the scope of GHS, and linkages with NEPAD agenda;
- Explore capacity building needs for implementation of GHS across the transport, consumer, industrial chemicals and agriculture sectors; and
- Examine and develop possible approaches to GHS implementation and identify practical ways and means regarding implementation within SADC; and formulate an agenda for implementation.

1.6 The South African Situation

Since 1994, the South African chemical industry has undergone significant transformation to meet the challenges posed by the opening up of the economy. Re-entry into the international community also posed a number of challenges for the South African government in all areas of environmental management. The international management of chemicals was an area of particular interest for the government because of the significance of the chemical industry to the national economy. The South African government participates in a number of intergovernmental programmes dealing with the sound management of chemicals.

A project has been initiated in October 2002, under the auspices of the Fund for Research into Development, Growth and Equity (FRIDGE), to study the implications of implementing the GHS in South Africa and the development of a national implementation strategy. It comprises three phases. The *first phase* is the compilation of a *Situation Analysis*, which identifies and assesses infrastructure and available national expertise relevant to hazard communication. Based on the information

collected for the Situation Analysis, a *Gap Analysis* (phase 2) will be undertaken to identify areas where intervention is required to implement the GHS. The socio-economic implications of the identified interventions will be evaluated. The third phase is the development of the strategy.

There are four target sectors that are primary end-users of the hazard communication system, i.e. industrial production, agriculture, consumers and transport. These different sectors receive and use the information conveyed about hazardous chemicals in different ways. Employers and workers in the industrial production sector need to know the hazards specific to the chemicals used or handled in the workplace, as well as specific information about the specific protective measures required to avoid the adverse effects that might be caused by those hazards. Farmers and farm workers are at risk from exposure through the use of different agricultural chemicals, such as pesticides and fertilisers. Consumers are exposed to a wide variety of chemicals, which require labelling that is sufficiently detailed and relevant to the use of the product. Those involved in the transport sector require information concerning the general safe practices that are appropriate for all transport situations. In addition to the four primary sectors, other important role players in chemical hazard communication include the emergency responders who respond to chemical emergencies.

Many economic activities in South Africa include processes which potentially expose employees to hazardous chemicals. Occupational health and safety (OHS) is of primary concern in all activities and particularly those that include hazardous chemicals. Hence the implementation of a hazard classification and communication strategy is considered crucial for health and safety issues (see **Annexure 1**).

One of the key factors that will determine the success of the GHS is the extent to which countries recognise the potential benefits and develop the necessary infrastructure to implement and operate the system at the national level. This will require adequate funding to build appropriate legal and technical infrastructures. The objective of this study is to identify the implications of implementing the GHS in South Africa and to develop an implementation strategy.

The purpose of the Situation Analysis is to document the existing legal, institutional, administrative and technical infrastructure and available national expertise across the four primary sectors that are relevant to the development and implementation of a national GHS implementation plan in both the governmental and non-governmental sectors and to identify issues to be addressed in the gap analysis. A number of the key stakeholders, who have an obligation and concerns about GHS, were consulted in the process of compilation of this report. The approach used included the following steps: background research, the compilation of a questionnaire, which listed key points for discussion; telephonic interviews with key stakeholders and collection of relevant documentation and information; and follow-up discussions and meetings, where necessary. In order to ascertain the current situation with regard to hazard classification and communication in the industrial production sector, a value chain approach was adopted. This entailed the selection of five hazard classes, the identification of a production chain in each class involving primary producer, secondary/tertiary producers and end users.

Based on the information collected, a draft Situation Analysis report was compiled comprising the following chapters:

- Socio-Economic Profile of the Chemical Industry;
- Legal Framework;
- Institutional Framework;
- Industrial Production Sector;
- Agriculture Sector;
- Transport Sector;
- Emergency Response;
- Consumer Sector; and
- Summary and Conclusions.

The draft Situation Analysis report was circulated to the NEDLAC/FRIDGE Counterpart Group (CPG) for review. The main findings of the draft report were presented to key stakeholders at a workshop. The outcomes of the workshop and comments from the CPG were used to revise and update the draft report to this final Situation Analysis Report.