



MINISTRY OF NATURAL RESOURCES, ENERGY AND ENVIRONMENT

## **CAPACITY ASSESSMENT FOR THE SOUND MANAGEMENT OF CHEMICALS**

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## **EXECUTIVE SUMMARY**

The project “Updating a National Chemicals Management Profile, Developing a National SAICM Capacity Assessment, and Holding of a National SAICM Priority Setting Workshop” in Malawi was developed with the technical assistance of the United Nations Institute for Training and Research (UNITAR) and the financial support of the Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme Trust Fund.

The objectives of the Assessment were:

- To catalyze a process of collaboration between government and stakeholders towards understanding and identifying priority needs for SAICM implementation
- To facilitate identification of action in government and within stakeholder groups which collectively contribute to SAICM implementation
- To identify selected areas where partnership projects between government and stakeholder groups, or between various stakeholder groups may be feasible, and
- To set the stage for preparation of a SAICM Implementation Plan which is linked to, as appropriate, an integrated national programme for sound chemicals management.

The overall capacity assessment has revealed that there are mechanisms of integrating chemicals management issues into national development priorities, such as availability of regulatory bodies and legislation. However lack of coordination in the regulatory bodies, inadequate funding, inadequate human capacity, weak legislation and enforcement, poor communication, inadequate awareness raising and the need for syllabus change in schools, including the absence of important key players and stakeholders are some of the gaps that were identified as drawbacks.

Information exchange mechanisms are available in the country in forms of training, seminars, public awareness campaigns and publications. However, the challenges are the absence of national database, inadequacy of public libraries and internet access and facilities.

## **1.0 SUMMARY ASSESSMENT: NATIONAL GOVERNANCE FRAMEWORK**

### 1.1 Integrating chemicals management into national development priorities

In Malawi currently, chemicals management issues are not integrated into national development priorities. This is partly because they have not been identified as important areas for immediate intervention and attention. These national priorities related to chemicals management can be reflected by their appearance in a national sustainable development strategy such as the Malawi Poverty Reduction Strategy or Malawi Growth Development Strategy . It is from there that donor support to chemicals-related activities may be more likely as organizations that provide support for chemicals-related capacity building activities at the national level call for such activities to be reflected in a country's overall national development priorities.

### 1.2 Sound institutional and programmatic national framework

Because there is fragmented chemicals management in the country, where government sectors only deal with the aspects that are directly applicable to them, there have been no efforts to link chemicals management capacity activities and projects within a national “programmatic” framework for the sound management of chemicals. Ideally, this approach should represent a long-term national commitment to chemicals management where relevant government sectors establish and participate in a national chemical safety coordinating mechanism, while maintaining their independence to execute individual components and projects within their mandate and competence. This can only be done if there are proper coordination mechanisms.

### 1.3 Effective project planning, implementation, monitoring and evaluation

Project planning, implementation, monitoring and evaluation are done in Malawi. However the system is not effective due to lack of follow up, lack of monitoring equipment, inadequate enforcement mechanisms and lack of capacity.

### 1.4 Legislation and enforcement

Malawi has piecemeal legislation to govern chemical management issues, which is sometimes overlapping and conflicting. The Environment Management Act, 1996, is the overarching legislation in environmental management. However, aspects of chemical management have not been explicitly outlined, leading to fragmented management. Various government sectors have legislation to deal with their areas of jurisdiction such as the Pesticides Act, 2000. As such, there is no comprehensive legislation that addresses the

entire life cycle of chemicals, including importation, manufacture, processing, storage, transport, use, disposal and recycling and disposal.

### 1.5 Participation of the private sector and civil society in chemicals management

The private sector and the civil society in Malawi have not been encouraged to participate in chemicals management and yet they have major roles to play in chemicals management, capacity building and information dissemination. The private sector, in particular industry, can be a net coordinator to supporting capacity building, especially given increasing calls by government for this sector to work in partnerships in support of sustainable development. Where industry is involved, systems can be developed that work on a cost recovery basis to ensure sustainability. Civil society can also be involved in certain aspects of chemicals management capacity building activities, including awareness-raising. Currently, most civil society groups are only involved in natural resources management issues.

## **2.0 SUMMARY ASSESSMENT: CHEMICALS MANAGEMENT ISSUES AND PRIORITIES**

The following is a summary of chemicals management issues and priorities:

### 2.1 Information generation and dissemination

Many studies have taken place in which information for chemicals management has been generated. However, because there is no national depository, few individuals are aware of this information and able to access it. Awareness and access to information is vital to a successful chemicals management programme. For the purposes of chemicals management, information is required to: identify chemicals of concern; assess problems that may arise, identify populations and environment at risk, implement focused and effective risk management programmes; monitor and evaluate health and environmental risks; raise awareness; and prepare and respond to chemical accidents and emergencies.

### 2.2 Risk reduction

The reduction of risks related to chemical exposure can encompass a broad range of options designed to limit adverse effects on health and the environment by reducing the availability, or inherent hazards, of chemicals or by controlling the nature and extent of exposures. Risks may be reduced through the elimination or reduction of the use of hazardous materials, substituting less toxic, persistent or bioaccumulative products, implementing safety procedures for the handling of dangerous chemicals and reducing the generation of hazardous waste. Efforts to reduce risks have started taking place throughout the country by participating in

programmes such as POPs enabling activities, Rotterdam Convention which encourage looking for alternatives that are less harmful to human health and the environment.

### 2.3 Education and awareness-raising

Widespread cooperation among all relevant government authorities, industry, workers, non-governmental organizations and the public is fundamental to sound national chemicals management. This in turn, calls for a widespread awareness of the potential risks associated with the use of chemicals and chemicals accidents, and an understanding of the ways in which chemicals can be handled safely. Some awareness-raising is done by the agriculture sector but it is inadequate. More efforts are encouraged in information dissemination and training.

### 2.4 Accident prevention and control

Chemical accidents and incidents can negatively impact human health and the environment, as well as result in a loss of income for enterprises that experience such accidents. Proper emergency response procedures need to be in place in cases when an accident cannot be prevented. Industry across the country just practice best practice in incident and accident prevention as a rule of thumb.

### 2.5 Analytical and laboratory capacity

The current laboratory facilities and analytical capacity in the country are capable of helping to support programmes and policies for the sound management of chemicals through regulatory chemical analysis, monitoring capacity, and the ability to support health surveillance. Such facilities are available at the Malawi Bureau of Standards and the universities across the country. However, gaps exist in areas such as environmental surveillance, where such analysis is sought outside Malawi because of lack of capacity internally.

## **3.0 OPPORTUNITIES FOR PARTNERSHIP PROJECTS**

The capacity assessment has identified areas for possible opportunities for partnership projects. Such areas are:

- Development of chemicals management legislation: government, private sector, labour unions
- GHS implementation: the development of training and awareness-raising materials for workers and the public, involving a partnership between the private sector, labour unions and consumer organizations.
- Safety at workplace/ safe handling of pesticides/chemicals: private sector and labour unions
- Poison centres: government, private sector, academia

#### 4.0 ANNEXES: COMPLETED WORKSHEETS

##### Worksheet 2: Governance Assessment

<b>A1. Integrating Chemicals Management into National Development Priorities</b>				
<b>Categories (and related SAICM Work Areas)</b>	<b>Level of existing capacities: High / Medium / Low</b>	<b>Summary of Strengths and Gaps</b>	<b>Possible Action</b>	<b>Urgency &amp; importance of taking action: High / Medium / Low</b>
1.1 Mechanisms for Integrating Chemicals Management into Development Priorities	Low	<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• Isolated departments that deal with chemicals management</li> <li>• Availability of regulatory bodies and legislation e.g. Pesticides Act, 2000</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• No coordination</li> <li>• lack of funding</li> <li>• inadequate human capacity</li> <li>• weak legislation and enforcement</li> <li>• poor communication</li> <li>• inadequate awareness raising</li> <li>• need for syllabus change</li> </ul>	<ul style="list-style-type: none"> <li>• Review all schools' curricula</li> <li>• Provide training and equipment</li> <li>• Enact chemicals management Act</li> <li>• Establish coordinating unit</li> <li>• Intensify public awareness</li> <li>• Utilize pressure groups</li> </ul>	High

<b>A2. Sound Institutional and Programmatic National Framework</b>				
<b>Categories (and related SAICM Work Areas)</b>	<b>Level of existing capacities: High/Medium/ Low</b>	<b>Summary of strengths and Gaps</b>	<b>Possible Action</b>	<b>Urgency &amp; importance of taking action: High/Medium/Low</b>
2.1 Establishing an Inter-institutional Coordination mechanism	Medium	<b>Strengths:</b> Existence of some coordination mechanisms e.g. boards <b>Gaps:</b> Other chemicals and players not yet incorporated e.g. Electricity Supply Commission of Malawi (ESCOM)	Establish coordinating unit	High
2.2 Information Exchange Mechanisms	Medium	<b>Strengths:</b> <ul style="list-style-type: none"> <li>• Training and seminars</li> <li>• public awareness campaigns</li> <li>• publications</li> </ul> <b>Gaps:</b> <ul style="list-style-type: none"> <li>• inadequate public libraries and internet access</li> </ul>	<ul style="list-style-type: none"> <li>• Create national database</li> <li>• Establish cheap and widely available information centres</li> </ul>	High
2.3 Setting National Priorities	Low	<b>Strengths:</b> <ul style="list-style-type: none"> <li>• available capacity</li> <li>• Political will</li> </ul> <b>Gaps:</b> <ul style="list-style-type: none"> <li>• Inadequate resources</li> </ul>	To include issues of chemicals management in the Malawi Growth and Development Strategy (MGDS) explicitly	High

2.4 Programme and Project Planning	Low	<p><b>Strength:</b> Capacity &amp; programmes are available</p> <p><b>Gaps:</b> Poor programme follow-up</p>	<ul style="list-style-type: none"> <li>• Sustainable mechanisms to be properly set</li> <li>• Sponsor experts</li> </ul>	Medium
2.5 Monitoring and Evaluation	Low	<p><b>Strength:</b> Few organizations enforce environmental audits e.g. Malawi Bureau of Standards, Environmental Affairs Department</p> <p><b>Gaps:</b> lack of monitoring equipment</p>	<ul style="list-style-type: none"> <li>• Establish enforcement mechanisms</li> <li>• Purchase monitoring equipment</li> </ul>	Medium
2.6 Establishing Effective Financing Mechanisms	Low	<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• political will</li> <li>• collaboration with international organizations that provide funding</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• Too many basic needs to be funded</li> </ul>	<ul style="list-style-type: none"> <li>• Financial and human resources needed</li> <li>• Consider chemicals management issues in the national budget</li> </ul>	High
2.7 Promoting Participation of Regional Authorities	Low	<p><b>Strengths:</b> Malawi is a member of many regional groups</p> <p><b>Gaps:</b> No proper forum to promote participation</p>	To increase participation	Medium



<b>A.3 Legislation and Enforcement</b>				
<b>Categories</b>	<b>Level of existing capacities: High / Medium / Low</b>	<b>Summary of Strengths and Gaps</b>	<b>Possible action</b>	<b>Urgency &amp; importance of taking action: High / Medium / Low</b>
3.1 Legislation, Regulations, Policies and Enforcement Capacities - General	Medium	Fragmented and incomplete legislation	<ul style="list-style-type: none"> <li>• Feasibility study on establishment of chemicals body</li> <li>• Development of legislation on chemicals management</li> </ul>	High
3.2 Pesticides Legislation and Policies	Low	Pesticides Act does not cover current crucial issues	<ul style="list-style-type: none"> <li>• Monitor and enforce Act</li> <li>• amend Act</li> </ul>	High
3.3 Policies for Pollution prevention and Cleaner Production	Low	no policy is available	Develop policy and other related legislation	Medium
<b>A.4 Participation of the Private Sector and Civil Society in Chemicals Management</b>				
<b>Categories</b>	<b>Level of existing capacities: High/Medium/ Low</b>	<b>Summary of Strengths and Gaps</b>	<b>Possible action</b>	<b>Urgency &amp; importance of taking action: High/Medium/Low</b>
4.1 Stakeholder Participation	Medium	<b>Strengths:</b> <ul style="list-style-type: none"> <li>• Relevant ministries and Malawi Bureau of</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building</li> <li>• Incentives from government for</li> </ul>	Medium

		<p>Standards involved</p> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• implementation of proper tests by various bodies</li> <li>• political will not adequate</li> <li>• donor community bulldozing in some policies</li> </ul>	<p>chemists/scientists</p> <ul style="list-style-type: none"> <li>• Proper equipment to be procured in relevant bodies</li> <li>• Improvement on human resources</li> </ul>	
4.2 Voluntary Initiatives in the Private Sector		<p><b>Strengths:</b> some companies have ISO certification e.g. La Farge and BP, Malawi Bureau of Standards has put in place standards on lifecycle assessment</p> <p><b>Gaps:</b> Lack of human resources, no promotion of laboratory technicians</p>	<ul style="list-style-type: none"> <li>• Co-responsibility</li> <li>• awareness raising</li> <li>• promoting safe use of chemicals</li> <li>• introduce incentives e.g. tax reduction or exemption</li> <li>• chemical management audits</li> <li>• awarding certificates to companies doing good in chemicals management</li> </ul>	High
4.3 Capacities of Civil Society		<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• financial assistance is in available</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• no civil society on chemicals management</li> <li>• no relevant human resources</li> </ul>	<ul style="list-style-type: none"> <li>• Raising awareness</li> <li>• providing training on chemicals management</li> <li>• Encourage civil society participation in chemicals management</li> </ul>	Medium

<b>A.5 International Cooperation Related to Chemicals Management</b>				
<b>Categories</b>	<b>Level of existing capacities: High/Medium/ Low</b>	<b>Summary of Strengths and Gaps</b>	<b>Possible action</b>	<b>Urgency &amp; importance of taking action: High/Medium/Low</b>
5.1 International Cooperation in Implementing Chemicals Management Related MEAs	Medium	<p><b>Strength:</b> information is available</p> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• information dissemination to the local masses on agreements and protocols and conventions is non-existent</li> <li>• Participants to international forums not from science disciplines</li> <li>• Implementation of what is discussed in these conventions/protocols is poor</li> </ul>	<ul style="list-style-type: none"> <li>• Improve networking and information sharing</li> <li>• Involve relevant ministries and personnel in chemical issues</li> </ul>	Medium
5.2 Studying and Resolving Chemicals Management Issues that have Transboundary Dimension	Low	<p><b>Strength:</b> customs authorities involved</p> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>• corruption at borders and check points</li> <li>• no research body in chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• create research body in chemicals</li> <li>• discourage corruption at borders by sensitizing customs officials</li> </ul>	High

### Worksheet 3: Identification of Important and Urgent Chemicals Management Issues

<b>B.1 Information Generation</b>							
<b>Stakeholder Input</b>	<b>Government</b>		<b>Stakeholder Group (Industrial)</b>		<b>Stakeholder Group (Civil Society/NGO)</b>		<b>Priority Rating for Chemicals Management</b>
<b>Categories</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Potential Priority for Development Planning</b>
1.1 Chemical Risk Assessment (incl. Hazard Identification and Exposure Assessment)	High	No generation of hazard data	High	<ul style="list-style-type: none"> <li>No equipment available</li> <li>Suspected spraying on vegetables, fish</li> <li>Degradation of human health and environment</li> <li>Concerns on occupational health and safety and, public health</li> </ul>	High		High
1.2 Research and Laboratory Capacities	High	These are important	High	<ul style="list-style-type: none"> <li>Equipment expensive</li> <li>inadequate equipment</li> <li>inadequate</li> </ul>		<ul style="list-style-type: none"> <li>Most are run by government /industry</li> </ul>	High

				labs, except for own use		<ul style="list-style-type: none"> <li>• need input in laboratories</li> </ul>	
<b>B.2 Risk Management for Chemical Safety</b>							
<b>Stakeholder Input</b>	<b>Government</b>		<b>Stakeholder Group (Industrial)</b>		<b>Stakeholder Group (Civil Society/NGO)</b>		<b>Priority Rating for Chemicals Management</b>
<b>Categories</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Potential Priority for Development Planning</b>
2.1 Adequate legislation	High	<ul style="list-style-type: none"> <li>• Inadequate and fragmented legislation</li> </ul>	High	<ul style="list-style-type: none"> <li>• fragmented</li> <li>• uncoordinated</li> <li>• enforcement problems</li> </ul>	High	<ul style="list-style-type: none"> <li>• Outdated</li> <li>• Needs review</li> </ul>	
2.2 Promote Safer Alternatives	High	Need to promote safe alternatives for chemicals such as DDT	High	More toxic products to be replaced by alternatives			
2.3 Highly toxic chemicals and chemical of global / original / national concern	High		High	Need to be replaced for health and environmental reasons	Low		

2.4 Safe handling, use, storage, and transportation of pesticides	High	Protection of human health and environment	High	<ul style="list-style-type: none"> <li>• Not enough specialised transporters in the country,</li> <li>• Lack of safety culture within organizations</li> </ul>	High	NGOs not involved Legislation will enable NGOs to be involved	
2.5 Safe use, storage and transportation of industrial chemicals	High	Protection of human health and environment	High	<ul style="list-style-type: none"> <li>• Specialized transported required</li> <li>• Training</li> <li>• Education</li> <li>• Risk assessment non existent</li> </ul>	High	NGOs not involved Legislation will enable NGOs to be involved	
2.6 Chemical safety in the workplace	High	Protection of human health at the workplace	High	<ul style="list-style-type: none"> <li>• Specialized transporters required</li> <li>• Training</li> <li>• Education</li> <li>• Risk assessment non existent</li> </ul>		NGOs to be included in trade unions, health and labour unions	
2.7 Cleaner production	High	Preventive measure	Medium	<ul style="list-style-type: none"> <li>• Some companies are doing a lot in promoting cleaner production</li> </ul>	Low	Include NGO participation	

				•			
2.8 Waste management	High	Protection of human health and environment	High	<ul style="list-style-type: none"> <li>• Lack of legislation</li> <li>• Lack of inadequate enforcement</li> </ul>	High	Include NGO participation	
<b>B.3 Information Exchange, Education and Training</b>							
<b>Stakeholder Input</b>	<b>Government</b>		<b>Stakeholder Group (Industrial)</b>		<b>Stakeholder Group (Civil Society/NGO)</b>		<b>Priority Rating for Chemicals Management</b>
<b>Categories</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Potential Priority for Development Planning</b>
3.1 Information Exchange			Medium	<ul style="list-style-type: none"> <li>• There is flow of information among stakeholders</li> <li>• Internet access not readily available</li> <li>• Inadequate information exchange</li> </ul>			
3.2 Education / Awareness Raising			Medium	<ul style="list-style-type: none"> <li>• There is flow of information among stakeholders</li> <li>• Internet</li> </ul>			

				access not readily available			
				<ul style="list-style-type: none"> <li>Inadequate information exchange</li> </ul>			
3.3 Training			High	Most industries do not spend a lot of resources on health and safety issues			
<b>B.4 Chemical Emergency Prevention and Control</b>							
<b>Stakeholder Input</b>	<b>Government</b>		<b>Stakeholder Group (Industrial)</b>		<b>Stakeholder Group (Civil Society/NGO)</b>		<b>Priority Rating for Chemicals Management</b>
<b>Categories</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Priority:</b> High / Medium / Low	<b>Reason for Judgment</b>	<b>Potential Priority for Development Planning</b>
4.1 Chemical Emergency Planning	High		High	Unknown emergency plans			
4.2 Chemical Emergency Response (including Treatment of Poisoned Persons)			High	Hospitals not well equipped			