Gaps Assessment and GHS Implementation Roadmap

Kenya

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1 Introduction

In the realm of chemical management and safety, the adoption and implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) stand as a critical milestone for nations globally. For Kenya, this journey is encapsulated in this document, which marks a pivotal step towards aligning Kenya with international standards in chemical safety and environmental conservation.

The GHS has the objectives of creating a consistent and coherent approach to classifying chemicals based on their physical, health, and environmental hazards across different countries. This harmonisation helps to eliminate discrepancies between different national and regional systems, therefore facilitating international trade of chemical products. The GHS provides a standardised and understandable way to communicate chemical hazards through labels and safety data sheets (SDS). This includes the use of standardised symbols (pictograms), signal words (e.g., “Danger” or “Warning”), hazard statements, precautionary statements, and other information. By ensuring that the hazards of chemicals are clearly communicated to users, workers, emergency responders, and the public, these are put in the position of making informed decisions about the safe handling and use of chemicals. Importantly, the GHS provides a framework for further legislative instruments of chemical risk management.

This roadmap originates from the findings of the baseline assessment conducted in 2022-2023. It integrates the expertise and methodologies developed by UNEP, UNITAR, ILO, and other international organisations that have been instrumental in guiding countries towards effective GHS implementation. The roadmap aims to address the specific needs and context of Kenya, acknowledging the unique challenges and opportunities within the nation.

The assessment identifies three principal areas of focus: legislative framework, sustainable financing of institutional capacity, and implementation and enforcement capacity. Each of these areas is critical for the successful adoption of GHS standards in Kenya. The legislative framework, primarily governed by the Environment Management and Coordination Act and its Regulations, forms the backbone of chemical management. However, it requires further refinement to fully align with GHS requirements.

A notable challenge highlighted in the roadmap is the sustainable financing of institutional capacity. Key regulatory bodies, namely the National Environment Management Authority (NEMA) and the Pest Control Products Board (PCPB), face limitations due to inadequate funding. This situation underscores the need for a robust financing system that can support the extensive responsibilities of these authorities in managing chemical safety.

Capacity building and training emerge as another significant need. The roadmap underscores the importance of comprehensive training programs, facilitated by UNITAR and other international entities, to equip Kenyan stakeholders with the necessary skills and knowledge for GHS implementation and enforcement.

Moreover, the roadmap emphasizes the development and execution of a strategic communication plan to raise awareness among diverse stakeholders, including the agricultural sector, industry, and consumers. This strategy is crucial for fostering a widespread understanding of GHS and its implications for chemical safety.

Enforcement and compliance are also addressed, with the roadmap advocating for the development of a thorough enforcement strategy, including a comprehensive inspection system. This strategy is vital to ensure adherence to GHS standards across various sectors.

The roadmap also recommends fostering international collaboration, particularly with regional partners and organisations like COMESA and the EAC. Such collaboration is envisioned to enhance information exchange and support the establishment of a network of competent authorities in the East Africa region.

In conclusion, the Gaps Assessment and Roadmap for GHS implementation in Kenya provide a structured and strategic approach to address existing challenges. By outlining key actions, timelines, and resource allocations[1], it sets a clear path for Kenya to achieve compliance with global chemical safety standards, ultimately protecting public health and the environment.

[1] Estimates of human resources are provided in workdays, for less resource-intensive actions, or Full-Time Equivalent (FTE), for resource-intensive actions. One FTE is equal to 220 workdays of an employee working full time per year. Human resources estimates are based on expert judgement, i.e. considering past experiences in different countries. The actual required resources may vary significantly and depend on a number of factors, such as efficiency of each organisation involved and level of complexity of the action.

2 Gaps assessment

The three main gaps in Kenya relate to the legislative framework, the lack of a sustainable financing of institutional capacity for chemicals control and the capacity to implement and enforce the upcoming requirements on the classification and labelling of chemical products. This section summarises the key findings of the baseline analysis and compares it to an ideal situation where Kenya has a functional and sustainable chemical legislative framework in line with the GHS, the authorities have the capacity to implement and enforce the legislation, businesses are able to classify and label chemical products accordingly, and the public is aware of the chemicals' hazards. This comparison, in turn, has informed the development of the action roadmap.

2.1 Legislative framework

The **Pest Control Products (Labelling, Advertising and Packaging) Regulations, 2024** developed by the Pest Control Products Board (PCPB) and the Ministry of Agriculture, Livestock, Fisheries & Cooperatives and stemming from the Pest Control Products Act (Cap. 346) have been adopted in June 2024. These Regulations introduce labelling requirements on pesticides in line with the GHS.[2] The **Environmental Management and Coordination (Management of Toxic and Hazardous Chemicals and Materials) Regulations, 2024** developed by the National Environment Management Authority (NEMA) and other relevant agencies have been adopted in November 2024. The Regulations stem from the Environment Management and Coordination Act, No. 8 of 1999 and its amendment, the Environment Management and Coordination (Chapter 387) Act, No.5 of 2015, which established NEMA and called for the development of regulations and standards for the sound management of chemicals. The Regulations include all the key elements of the GHS and, with this development, **Kenya has now a national regulatory framework fully aligned with the GHS**. Also from an occupational health and safety perspective, thanks to the general and chemical safety-specific provisions of the Occupational Safety and Health Act, 2007, the competent authorities can implement and enforce the GHS-aligned requirements on classification and labelling of chemical products. Complementing the legislative acts, Kenya has also a number of relevant standards:

- KS 2605 which lists the criteria for the classification of hazardous substances and mixtures (GHS rev. 7).
- KS 2606 which supplements the information provided in KS2605.
- KS 2324 which covers the identification and classification of dangerous goods for transport by road and rail modes.
- KS 2382-1 and KS 2382-2 which include requirements for emergency information systems (such as requirements for hazard class diamonds, placards and emergency information documents) respectively for road and rail transport.
- KS 2530 which identifies various methods of packaging that are suitable for prescribed Maximum quantities of dangerous goods that may be offered for transport by road or by rail.

2.2 Sustainable financing of institutional capacity

The adoption of the Regulations results in chemical companies having to implement GHS hazard communication tools, which are the basis for the sound management of chemicals. Chemical companies make profit by producing and importing chemical products and services which are key for

[2] It should be noted that both the Pest Control Products Act and Regulations in force do not have explicit requirements on safety data sheets. However, with the adoption of the Environmental Management and Coordination (Management of Toxic and Hazardous Chemicals and Materials) Regulations, 2024, this loophole has arguably been filled.

any modern economy. The correct management of the risks involved in the production, import, placing on the market, and use of chemicals require chemical companies to step up to their important responsibilities. Placing the requirements of classification and labelling on industry stakeholders lower significantly the costs for the public authorities. However, public authorities still have very important roles to play:

- Developing legislation and guidance
- Providing training and capacity building
- Increasing awareness on the sound management of chemicals
- Ensuring compliance with the legislation

All these tasks have costs that require reliable, secure, and predictable financing sources. The funding of NEMA and the PCPB comes from the state budget, internally generated revenues and grants from external donors. Both authorities should avoid reliance on the National Treasury, and seek to supplement fee revenues collected from services provided and mobilisation of international cooperation and development resources.

2.3 Implementation and enforcement capacity

The Multi-sectorial Committee on Sound Chemicals Management has the mandate to operate as the national GHS Implementation Committee. It was established in 2020 and is co-chaired by the Ministry of Environment, Climate Change and Forestry and the Ministry of Health. Table 2-1 lists the current members of the Committee.

Table 2-1: Members of the Multi-sectorial Committee on Sound Chemicals Management (November 2023)

No.	Name	Position	Organisation
1	Melau William	Secretariat	Ministry of Environment, Climate Change and Forestry – MEAs
2	Linda Kosgei	Ag Director	Ministry of Environment, Climate Change and Forestry – MEAs
3	Caroline Hadija Lelei	Public Health Officer	Ministry of Health
4	Christopher Nyaga	Principal Fisheries and Blue Economy Officer	Ministry of Agriculture, Department of Fisheries and Blue Economy
5	Caroline Njoki Wamai	Materials Testing and Research Division	Ministry of Transport and Infrastructure
6	Maxwell Memusi	Senior Occupational and Health Officer	Ministry of Labour and Social Protection; DOSH
7	John Mumbo	Principal Compliance and Enforcement Officer	NEMA
8	June Aluoch	Officer	Pest Control Products Board
9	Albert Nyagechi	Manager Chemicals and Environmental Studies	Kenyan Bureau of Standards
10	Fred Nyongesa	Deputy Technical Coordination Manager	Water Resource Authority
11	Jane Kisutia	Deputy Government Chemist	Government Chemist
12	Leonard Mwagi Gitu	Senior Lecturer	Jomo Kenyatta University of Agriculture and Technology (JKUAT)
13	Griffins Ochieng	Executive Director	Centre for Environment Justice and Development (CEJAD)
14	Purity W. Kamau	Director of Industries Chemical and Mineral Industries	State Department of Industrialization

Table 2-1: Members of the Multi-sectorial Committee on Sound Chemicals Management (November 2023)			
No.	**Name**	**Position**	**Organisation**
15	Faridah Hussein Were	Department of Chemistry	University of Nairobi (UoN)
16	Frederic Isaboke	Manager	Kenya Revenue Authority (KRA)
17	Annie M Syombua	State Counsel – Legal	Ministry of Environment, Climate Change and Forestry
18	Georgina Wachuka	Regulatory Affairs Officer	KAM

The following subsections summarise the knowledge and capacity of public authorities, industry stakeholders, and the civil society regarding GHS implementation.

2.3.1 Public authorities

The division of responsibilities across government ministries in terms of the four target audiences of the GHS (consumers, workers, transport workers, and emergency responders) is well defined. This however may also impact how legislation is developed, implemented and enforced. Because of the horizontal nature of the GHS, any regulatory framework would benefit from a more concerted effort. This highlights the importance of having a GHS Implementation Committee.

The relevant public authorities are understaffed and lack knowledge of the legal and technical aspects of GHS implementation. Also with regard to enforcement, public authorities' staff lack legal and technical knowledge.

2.3.2 Business and industry

Multinational chemical companies operating in Kenya use chemical hazard communication tools compatible with GHS provisions, including safety data sheets (SDSs) and labels. These are likely to be used throughout their supply chains. However, workers of companies acquiring and providing goods and services[3] to and from these companies in Kenya — in other words, Kenyan upstream and downstream businesses not part of these large chemical business groups — may not be trained to understand the SDSs and labels and act accordingly. National manufacturers and importers of chemical products may be familiar with GHS hazard communication tools but may not implement them systematically.

The combined efforts of public authorities and industry associations is needed to raise awareness and support capacity building in industry stakeholders including technology transfer, research and development on sound chemicals management and hazardous waste management. The Kenya Association of Manufacturers (KAM) and the Agrochemicals Association of Kenya / CropLife Kenya (AKK) are two industry associations that can contribute towards this goal. KAM implements the ICCA Responsible Care Kenya Initiative, which focuses on three components of chemicals management: chemical safety, responsible production, and safety of allied products.[4] The initiative is currently working on mobilising multinational and local industries from ten industries to participate in the programme. The initiative promotes the use of GHS as one of the key areas in the management of chemicals in various industries[5], including the production, transportation, storage, use and disposal of chemicals. AKK run the 'Sustainable Pesticide Management Framework' initiative, through which they train farmers and dealers of agrochemicals in integrated pest management, including human health

[3] Including transport services and logistics.

[4] Ibid.

[5] https://icca-chem.org/wp-content/uploads/2022/08/Responsible-Care-Global-Overview.pdf

and environmental safety. AKK has also collaborated with the PCPB for the development of the guidance document on the GHS for agrochemicals.

2.3.3 Civil society

There is at least one NGO specialised on chemical risk management which could play an important role for raising awareness and capacity building. This is the Centre for Environmental Justice and Development (CEJAD), which is also part of the Multi-sectorial Committee on Sound Chemicals Management. CEJAD has worked for UNEP, IPEN, and other international organisations in similar activities.

Another important player could be the Kenya Chemical Society (KCS), which offers training courses in chemical security and identification, neutralisation and disposal strategies of chemicals to its members, the Jomo Kenyatta University of Agriculture and Technology and the University of Nairobi. KCS has experience in working in similar international initiatives, and the two universities are members of the Multi-Sectorial Committee on Sound Chemicals Management.

3 GHS National Implementation Roadmap

3.1 Overview

Implementing the GHS involves a series of steps and actions to ensure compliance with international standards and the safety of workers, consumers, and the environment. The proposed national roadmap is structured as follows:

1) **Preparatory steps.** Organise a workshop to launch the roadmap and obtain the support of senior representatives from the public and private sectors.
2) **GHS-based regulatory framework and implementing activities.** Develop an accompanying guidance document. Establish a technical committee to keep the legislation up-to-date.
3) **Capacity Building and Training**. Identify and train relevant government agencies, industry, and other stakeholders on the GHS principles and requirements.
4) **Raise awareness**. Implement a comprehensive hazard communication programme to educate workers, consumers, and emergency responders about the new labelling and safety data sheet requirements. Engage with industry, trade associations, labour unions, and civil society to raise awareness about GHS and gather feedback for continuous improvement.
5) **Enforcement and compliance**. Develop an inspection manual and enforcement framework for environment inspectors to monitor and ensure compliance with GHS requirements.
6) **International collaboration.** Collaborate with neighbouring African nations and other partners to ensure regional harmonization and facilitate cross-border trade.
7) **Monitoring and reporting.** Provide reports and updates to international organisations to demonstrate Kenya's commitment to GHS compliance.

This roadmap serves as a guideline for implementing the GHS in Kenya. The process will require close collaboration between government agencies, industry stakeholders, and the public to ensure successful adoption and continuous improvement of chemical safety standards.

3.2 Key element 1: preparatory steps

3.2.1 Action 1.1: Organise a national GHS workshop (COMPLETED)

The national GHS workshop was held on 12 August 2024 in Nairobi and hosted by the Kenyan Association of Manufacturers (KAM). The workshop brought together representatives from government ministries, agencies, and departments, and representatives of the chemical industry. During the workshop, the newly adopted Pest Control Products (Labelling, Advertising and Packaging) Regulations, 2024 and the — at the time — upcoming Environmental Management and Coordination (Management of Toxic and Hazardous Chemicals and Materials) Regulations, 2024 were discussed along with the relevant Kenyan standards. In particular, the discussion focused on any remaining gaps and the potential synergies between the Regulations, the Standards, and the Occupational Safety and Health Act, 2007.

3.3 Key element 2: GHS-based regulatory framework and implementing activities

3.3.1 Action 2.1: Refine the Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations (COMPLETED)

The Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations, 2024 — which were adopted in November 2024 — are a very ambitious set of requirements covering not only the UN GHS but also registration, licensing and permitting of manufacturing, import and export of chemical products, prior informed consent, chemicals in products, mercury, emission control from the extractive industry, preparedness, prevention and response to chemical accidents, liability, waste management, dual-use chemicals, pollutant release and transfer register, persistent organic pollutants, reporting and enforcement. They domesticated several international conventions and set a comprehensive chemical legislative framework. Their wide scope and level of ambition will require developing guidelines, training and awareness raising materials to facilitate their full implementation and enforcement.

3.3.2 Action 2.2: Develop a guidance document

The Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations, 2024 in combination with the Pest Control Products (Labelling, Advertising and Packaging) Regulations, 2024, the Occupational Safety and Health, 2007 and the Kenyan standards have aligned the national regulatory framework for chemicals with the UN GHS. However, the Regulations do not include all classification criteria and do not explain the classification process in detail. Moreover, the scope of application is very wide, and the common exemptions from the GHS (pharmaceuticals, food additives, cosmetics and pesticide residues in food at the point of consumption) are not listed.

It is recommended that the GHS Implementation Committee develops a guidance document illustrating the classification and labelling processes and clarifying the scope of application. It is suggested that a sub-committee composed of two representatives of NEMA, one representative of the Ministry of Environment, Climate Change and Forestry, one representative of the Department for Occupational Safety and Health of the Ministry of Labour and Social Protection and one representative of the PCPB[6] work actively in drafting the guidance document. Periodically (every one or two months), the draft guidance document is shared with the GHS implementation Committee for comments and suggestions. Every four months, the draft guidance document is shared with the Project Steering Board for comments and suggestions. This also enables the monitoring of the action progress.

3.3.3 Action 2.3: Propose substances with harmonised classification and labelling

The Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations, 2024 provide for NEMA, in collaboration with other relevant agencies, to

[6] PCPB has already worked on the development of a guidance document on the GHS for pesticides, and their participation in this sub-committee is likely to be beneficial. Moreover, in the long run, Kenyan authorities may like to consider having one single piece of legislation regulating the classification and labelling of all chemical products. The sub-committee could help in setting this common goal and work towards its achievement.

propose harmonised classification and labelling for substances with hazards of the highest concern (carcinogenicity, mutagenicity, reproductive toxicity, respiratory sensitisers and plant protection products and biocidal active substances). The Pest Control Products (Labelling, Advertising and Packaging) Regulations, 2024 requires the PCPB to decide on the classification and labelling of agrochemicals.

The authorities will have to decide how often to propose substances with harmonised classification and labelling and where to publish the list, e.g. whether in a Schedule of the Regulations or in the guidance document[7]. It is suggested that the authorities consult the European Chemicals Agency (ECHA) on how to implement the process. Moreover, the authorities could check the list of substances with harmonised classification and labelling in the European Union, identify those that are also used in Kenya and propose the same classifications.

3.3.4 Action 2.4: Apply to become observers in the United Nations Sub-Committee of Experts on the GHS, and the United Nations Subcommittee of Experts on the Transport of Dangerous Goods

The GHS is in constant evolution and is *updated, revised and improved every two years as needs arise and experience is gained in its implementation*.[8] The two groups tasked with the maintenance, updating and promotion of the GHS are the United Nations Sub-Committee of Experts on the GHS (UNSCEGHS), and the United Nations Subcommittee of Experts on the Transport of Dangerous Goods (UNSCETDG). Countries may apply to become observers or full members. For the latter, countries need to commit to participate on a regular basis.

It is recommended that Kenya applies to become an observer in both groups. The members of the Kenya sub-committee set for developing the guidance document (Action 2.2) (representatives from the Ministry of Environment, Climate Change and Forestry, the Ministry of Labour and Social Protection, NEMA and the PCPB) could be tasked with this responsibility. Their participation in the two groups would ensure that the Kenya sub-committee is able to keep legislation, standards and guidance documents up-to-date.

3.3.5 Action 2.5: Establish a sustainable financing system for chemicals control

It is recommended that the GHS Implementation Committee carries out an analysis of the costs of the infrastructures necessary to ensure the functioning of the chemicals' control system.

It is advisable to estimate the costs of the whole national chemicals' management system and decide on the allocation to different activities (including GHS-related activities) on an annual or biannual basis. The main elements of a chemicals' management system are:

- Identification and assessment of chemicals' hazardous properties and risks.
- Dissemination of hazard, risk, and safety information.
- Making informed choices about chemicals to be placed on the market.
- Organisation of workers and public safety.

[7] As, for example, Part 1 of the Industry Code of Practice on chemicals classification and hazard communication in Malaysia.

[8] https://unece.org/about-ghs

- Compliance monitoring.[9]

The costs related to the implementation and enforcement of the GHS-based legislation are:

- Costs related to the functioning of the GHS Implementation Committee and any future sub-committee.
- Costs of developing and updating the legislation, standards, and guidance documents.
- Costs of gathering hazard classifications of chemical products.
- Costs of proposing harmonised classification and labelling for certain chemical products.
- Costs of inspections and verification of the adequacy of hazard classifications and labelling of chemical products on the market.
- Costs of communication activities (workshops, leaflets, maintenance of webpages, helpdesks, etc.).

Once the GHS implementation Committee has a clear understanding of the possible costs and internally generated revenues, it should be possible to estimate the total annual funding (considering also the national budget allocation and grants from international donors) and plan implementing and enforcing activities for the short-medium term (five years). Importantly, fees can be remodulated to cover the costs if implementing GHS-related activities and to adjust the mix of funding sources.

The 'optimal' mix of sources needs to be defined in consideration of the nature of the activities that the GHS Implementation Committee and its members will have to implement. Allocation of resources from the state budget should cover activities such as the establishment, maintenance and refinement of the legal framework, the communication and exchange of information about chemicals management with a wider audience than the companies paying fees, and regional or international collaboration initiatives. Internally generated revenues through the fees prescribed in the Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations and the Pest Control Products (Labelling, Advertising and Packaging) Regulations, 2024 should be 'ear-marked' for chemicals' management. External funding (such as the Global Environmental Facility grants, the UN special Programme development projects, and other types of funding provided by countries offering bilateral support) can be used in the short term to build capacity but should not be relied upon in the long term.[10]

The GHS Implementation Committee should also reconsider over time the fee values, not just in terms of cost coverage, but also in terms of their effect on compliance and general response of the companies. For example, the Committee may like to consider remodulating the fees according to the size of the companies, quantities of chemicals traded, etc.

Table 3-1 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-1: GHS key element 2: GHS-based regulatory framework and implementing activities

Action	Action owner and support	Required resources
2.1 Refine the Regulations	The Project Steering Group supports NEMA in refining the Regulations.	COMPLETED

[9] UNEP 2015. UNEP guidance on the development of legal and institutional infrastructures and measures for recovering costs of national administration for sound management of chemicals. Table 1 at page 20 lists the key activities for each main element of the management system.

[10] Strategic Approach to International Chemicals Management (SAICM), & United Nations Environment Programme (2022). *Study on Industry Involvement in the Integrated Approach to Financing the Sound Management of Chemicals and Waste - April 2022*. https://wedocs.unep.org/20.500.11822/40069.

Table 3-1: GHS key element 2: GHS-based regulatory framework and implementing activities						
2.2 Develop a guidance document	The GHS Implementation Committee				2 Full-Time Equivalents (4 people x 0.25 FTE x 2 years)	
2.3 Propose substances with harmonised classification and labelling	NEMA, PCPB and DOSH. Authorities check the list of CLH substances in the Classification and Labelling Inventory maintained by ECHA, identify substances also used in Kenya and implement the same CLH. ECHA could provide training on harmonised classification and labelling.				0.25 FTE per year	
2.4 Apply to become observers in the United Nations Sub-Committee of Experts on the GHS, and the United Nations Subcommittee of Experts on the Transport of Dangerous Goods	The GHS Implementation Committee.				-	
2.5 Establish a sustainable financing system for chemicals control	The GHS Implementation Committee, with support of the financial department of NEMA and the PCPB. The Project Steering Group and some of its members (e.g. ECHA) can also provide advice.				-	
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 2.1	COMPLETED					
Action 2.2						X
Action 2.3						X
Action 2.4						X
Action 2.5						X

3.4 Key element 3: Capacity Building and Training

3.4.1 Action 3.1: Define training needs and identify representatives to undertake training

It is recommended that the GHS Implementation Committee define the training needs of each organisation member of the Committee and identify two representatives per organisation to be trained. The training of two people per organisation should ensure that the knowledge and skills built through training are not lost because of staff turnover[11]. Given the limited resources available and the need for training a wide cohort of people, it is recommended to follow a 'train-the-trainers' model. This implies that the people selected to undertake the training in each organisation should be confident and skilled public speakers / communicators as a minimum and should undertake to train further colleagues in their units or stakeholder groups.

UNITAR provides a GHS e-learning course of 10 weeks which runs twice a year, starting every March /April and September/October. This is a comprehensive course encompassing all technical elements of the GHS. It is recommended that two representatives of NEMA, two representatives of PCPB and one representative of the Ministry of Environment, Climate Change and Forestry undertake the course. This training would also be very useful for all industry representatives responsible for the

[11] People retiring or moving to other positions or organisations.

classification and labelling of chemical products, and for consultancies interested in providing these services.

Not all stakeholders require training on all technical elements. **Error! Reference source not found.** lists webinars and training materials available at UNITAR (highlighted in green) and ideas for tailor-made GHS courses that could be developed and implemented. The latter could also be developed and offered by ICCA/Cefic, ECHA and other international partners. It also provides suggestions on the target audience and indicative time of implementation. The GHS Implementation Committee should consider the priorities and propose trainees and discuss implementation times with the Project Steering Board.

Table 3-2: Indicative list of training courses with suggested participants and time of implementation

Trainings	Suggested stakeholders	Suggested implementation time
UNITAR GHS e-learning course https://event.unitar.org/full-catalog/classifying-and-labelling-chemicals-according-un-ghs-18-september-1-december-2023	NEMA, PCPB, DOSH, UoN, JKUAT Environmental and occupational safety managers in the private sector Private sector employees responsible for hazard assessment / classification and preparing labels and safety data sheets	Q1 2025
Legislation of chemicals placed on the market https://event.unitar.org/full-catalog/legislation-chemicals-placed-market-course	NEMA, PCPB, DOSH, Ministry of Environment, Climate Change and Forestry, KSB	Q1 2025
Risk Reduction of Chemicals https://event.unitar.org/full-catalog/risk-reduction-chemicals-course	NEMA, PCPB, DOSH, Ministry of Environment, Climate Change and Forestry, KSB	Q1 2025
Enforcement of chemicals legislation https://event.unitar.org/full-catalog/enforcement-chemicals-legislation-course	NEMA, PCPB, DOSH, Ministry of Environment, Climate Change and Forestry	Q1-Q2 2025
Sustainable Financing of Institutional Capacity for Chemicals Control https://event.unitar.org/full-catalog/sustainable-financing-institutional-capacity-chemicals-control-course	NEMA, PCPB, DOSH, Ministry of Environment, Climate Change and Forestry	Q2 2025
Training on emergency response and sources of emergency response information	Poison centre, emergency responders	Q1-Q2 2025
Developing, reading and interpreting Safety Data Sheets	KAM and AKK members, poison centre and emergency responders.	Q1-Q2 2025
Understanding labels	KAM and AKK members, poison centre and emergency responders.	Q1-Q2 2025
Training on stakeholder engagement	NEMA, PCPB, DOSH, Ministry of Environment, Climate Change and Forestry	Q1-Q2 2025

The list of representatives selected to undertake the training should be ready by the start of the fourth quarter of 2024. UNITAR could support the GHS Implementation Committee by holding a call to explain the content, modules, prior knowledge /skills required, and duration of each course.

3.4.2 Action 3.2: Undertake UNITAR training courses

All selected representatives undertake UNITAR training courses. It is suggested that the Kenyan authorities use the five scholarships available on the UNITAR GHS e-learning course starting in in September 2024 or February/March 2025. All GHS Implementation Committee members should undertake the three courses available online upon registration on legislation of chemicals placed on the market, risk reduction of chemicals, and sustainable financing of institutional capacity for chemicals control. These take 45 minutes each and provide the bases for the Committee to discuss and develop the national framework. NEMA and PCPB should also undertake the online course on the enforcement of chemicals legislation. Importantly, participants should be committed to attend UNITAR training until the end. Drop-off from the training courses should be monitored, reported to the Project Steering Board and the underlying issues discussed.

3.4.3 Action 3.3: The 'trained trainers' deliver the training in their organisations

The representatives who have finalised the UNITAR GHS e-learning course should train their colleagues as soon as their own training is complete, so that the knowledge and skills acquired are still 'fresh' and the risk of losing skilled resources through staff turnover is minimised. The participants to the UNITAR GHS e-learning course receive a pdf document at the end. While this document is not in an adequate format to be used for training, it can be used to develop training material. Moreover, UNITAR will develop further training material which will be accessible for free.

The training courses implemented by the trained personnel should be evaluated by the participants through satisfaction surveys. Moreover, the participants could complete UNITAR final exams, which could help to establish whether the courses have achieved the expected results.

3.4.4 Action 3.4: Training and capacity building by ECHA, the Commission, ICCA/Cefic and other institutions

Beyond UNITAR, other members of the Project Steering Board, in particular ECHA, the Commission and ICCA/Cefic can provide training and capacity building. This could take the form of site visits (in Finland and Belgium) by the Kenyan authorities, or series of webinars on specific topics. Key ministries, NEMA and PCPB would greatly benefit from the expertise of these institutions' experts.

Topic that could be discussed are the functioning of the CLP Regulation (Classification and Labelling Inventory, harmonised classification and labelling, new hazard classes added to the EU system, poison centres, Enforcement Forum) (with ECHA), and the synergies between CLP and other legislation (with the Commission). ICCA/Cefic and its members could describe best industry practices from the classification and labelling of chemical products. Moreover, EU Member State enforcement authorities could also offer to describe their enforcement processes and practices, recurrent issues and ways forward.

It is recommended that large international chemical manufacturers and distributors which operate in Kenya (e.g. BASF East Africa, Bayer East Africa) provide training on the GHS (e.g. developing, reading and interpreting Safety Data Sheets, understanding labels) to their local suppliers and clients. The training could be organised by ICCA and Cefic in collaboration with the local business associations (CAM and AKK).

Table 3-3 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-3: GHS key element 3: Capacity building and training						
Action	**Action owner and support**				**Required resources**	
3.1 Define training needs and identify representatives to undertake training	The GHS Implementation Committee, with the support of UNITAR				10 working days	
3.2 Undertake UNITAR training courses	Individuals selected to undertake the trainings				Five scholarships available. Additional €20,000 could be dedicated to train additional workforce.	
3.3 The 'trained trainers' deliver the training in their organisations	Trained trainers in their own organisations, with the support of UNITAR				2.5 FTEs (0.125 FTE x 20 people) ~€20,000	
3.4 Training and capacity building by ECHA, the Commission, ICCA/Cefic and other institutions	The GHS Implementation Committee selects the delegates. ECHA, the Commission and Cefic organise the capacity building programme. ICCA, Cefic and their members, with the support of CAM and AKK, organise capacity building for the private sector.				~€10,000	
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 3.1	X					
Action 3.2						
Action 3.3						
Action 3.4						

3.5 Key element 4: raise awareness

3.5.1 Action 4.1: Develop and implement a communication strategy

Following the training of representatives from the Ministry of Environment, Climate Change and Forestry, NEMA, the PCPB and CEJAD on stakeholder engagement, these should work on a communication strategy.

The strategy should aim to increase awareness of the GHS across the four main target groups: farmers, industry employers and workers, transport employers and workers, and consumers. It should also include communication about the working procedures of the authorities and the procedures to manage confidential business information. This would ensure transparency and provide trustworthiness of the authorities. The perception and understanding of industry stakeholders of the efficiency of the competent authorities is an important step towards ensuring regulatory compliance. The authorities should inform industry stakeholders about their upcoming responsibilities and duties with regard to classification and labelling.

The communication strategy could cover the following elements:

- Organisation of **workshops and events**, including identification and selection of topics of interest for the Kenyan stakeholders that could be discussed during the events;
- Communication of information on upcoming industry responsibilities and duties; and
- The organisation dissemination of **information online**: the content on NEMA website, including the webpage of the GHS Helpdesk, could be organised by topics to facilitate access to documents and deadlines. The Helpdesk's webpage could have a Frequently Asked Questions (FAQ) section, which could assist companies and the public.

The development of a communication strategy can be broken down in six steps:

- Definition of strategy's goals and target audiences.
- Survey of the needs and topics of interest and definitions of the communication objectives.
- Identification of the communication channels.
- Allocation of resources for a multiannual plan.
- Definition of evaluation measurements (e.g. number of participants to communication events).
- Implementation of the communication strategy.

Table 3-4 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-4: GHS key element 4: raise awareness

Action	**Action owner and support**					**Required resources**
4.1 Develop and implement a communication strategy	The GHS Implementation Committee and in particular the Ministry of Environment, Climate Change and Forestry, DOSH, NEMA, the PCPB and CEJAD. Support from the Project Steering Board.					~€20,000
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 4.1						

3.6 Key element 5: Enforcement and compliance

3.6.1 Action 5.1: Develop an enforcement strategy

It is recommended that the GHS Implementation Committee develops an enforcement strategy. A comprehensive inspection system is an essential component of the legislative framework and has the objective to ascertain whether duty-holders have the skills and processes in place to ensure the correct communication of hazard information to all actors in their supply chains. Enforcement of the chemical management legislative framework in Kenya is the primary responsibilities of NEMA, the PCPB, DOSH, and the customs' authorities (Kenya Revenue Authority). The police may also support when required (serious breaches of the laws resulting in criminal charges or checking transport documents). The strategy should cover all intervention points: primary supply (manufacturers and importers), transport and storage (logistics and transport service suppliers), the point of sales (distributors and retailers), and the point of uses (industrial and professional users of chemical products) and set targets (number of inspections in different sectors per year). The strategy should also ensure the coverage of large, medium, and small enterprises. Importantly, the strategy should ensure the coordination of enforcement authorities, avoiding that the same entity is inspected by more than one inspectorate on classification and labelling requirements.

The Enforcement Forum hosted by ECHA has developed a number of documents and coordinated various enforcement projects over the last 15 years. The Forum could hold a workshop[12]/webinar to support the Kenyan enforcement authorities in developing the enforcement strategy.

[12] This could be held in the context of the Kenyan authorities visiting ECHA, for example.

3.6.2 Action 5.2: Implement the enforcement strategy

The enforcement strategy is also a tool for increasing awareness of all duty-holders with regard to their requirements on classification and labelling of chemical products. In the first phase of the enforcement campaign, the authorities may want to use issue notifications of non-compliance, explaining how the classification and labelling of the chemical products inspected do not conform to the GHS and the steps to align the hazard communication tools. The notifications should be followed up to verify compliance. The authorities may want to follow this 'educational' approach in particular with regard to mixtures, where the capacity of industry stakeholders to classify and label accordingly mixtures needs to be built over time.[13]

In a second phase, the authorities may want to increase the number of 'surprise' site inspections, issue fines and prosecute non-compliances. Whatever phase the enforcement strategy is in, inspections following reported problems should be carried out systematically, and situations where there is a danger for human health or the environment prosecuted.

Table 3-5 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-5: GHS key element 5: Enforcement and compliance

Action	Action owner and support				Required resources	
5.1 Develop an enforcement strategy	The GHS Implementation Committee, with support from the Enforcement Forum hosted by ECHA				0.5 FTE	
5.2 Implement the enforcement strategy	NEMA, PCPB, DOSH, Customs, police				-	
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 5.1						
Action 5.2						

3.7 Key element 6: International collaboration

3.7.1 Action 6.1: Exchange information with the other three beneficiaries of the four-year pilot projects[14]

It is recommended that a series of four (in person) events are organised, during which the chairs of the respective GHS Implementation Committees present on the progress against the roadmaps. This format would allow the beneficiaries to share the issues and barriers encountered and discuss possible ways forward together with the Project Steering Board. The events should be organised by each beneficiary in turn, with the support of the Project Steering Board.

3.7.2 Action 6.2: Exchange information with regional partners

One of the objectives of the pilot project is to generate a regional 'aspiration' effect encouraging other countries to follow suit in the implementation of the GHS. While developing the Environment Management and Coordination (Toxic and Hazardous Industrial Chemicals and Materials Management) Regulations, the Kenyan authorities have consulted the competent authorities in

[13] This also in consideration that there is no transition period in the Regulations, i.e. classification and labelling requirements apply to substances and mixtures from the date of entry into force of the Regulations.

[14] The four beneficiary countries are Côte d'Ivoire, Ghana, Kenya and Nigeria.

Zambia, which is one of the three African countries already implementing the GHS.[15] This type of collaboration could be facilitated by organising a network of competent authorities in the East Africa region. These could be invited as observers to the event for exchanging information on the progress with the beneficiaries' action roadmaps to be organised in Kenya.

It is recommended that the Project Steering Board facilitates the establishment of the network by approaching the Common Market for Eastern and Southern Africa (COMESA) or the East African Community (EAC).

3.7.3 Action 6.3: Seek further assistance

It is recommended that the Ministry of Environment, Climate Change and Forestry seeks to establish cooperation with a country or group of countries with established chemicals management framework. Examples are the project run by the Swedish Chemicals Agency (KEMI) in Zambia between 2020 and 2023, which saw a KEMI expert working side-by side with colleagues at the Zambia Environmental Management Agency to strengthen the institutional capacity in the management of pesticides.[16] Another example is the EU Twinning Project "Peer-to-Peer institutional support to the Office of the Auditor General in Zambia", which is pioneering a new type of cooperation that the European Union has never implemented beyond its immediate neighbourhood.[17] The twinning project is implemented by specialised agencies and institutions from four different EU Member States.

Table 3-6 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-6: GHS key element 5: Enforcement and compliance

Action	Action owner and support					Required resources
6.1 Exchange information with the other three beneficiaries of the four-year pilot projects	The GHS Implementation Committee, with support from the Project Steering Board					~€5,000
6.2 Exchange information with regional partners	The Project Steering Board					-
6.3 Seek further assistance	the Ministry of Environment, Climate Change and Forestry, with the support of the Project Steering Board					-
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 6.1		X		X		X
Action 6.2						
Action 6.3						

[15] Rwanda is also working towards GHS implementation. Source: https://unece.org/sites/default/files/2023-06/GHS%20implementation%20by%20country_2023-06_0.pdf

[16] https://www.kemi.se/en/international-cooperation/global-regional-and-bilateral-cooperation/regional-and-bilateral-cooperation/bilateral-cooperation-with-zambia

[17] https://www.eeas.europa.eu/delegations/zambia/european-union-pioneers-twinning-zambia-first-pilot-country-outside-europe-and-its-immediate_und_ru?s=128

3.8 Key element 7: Monitoring, evaluation and reporting

3.8.1 Action 7.1: Establish a monitoring, evaluation and reporting system

It is recommended that the GHS Implementation Committee establishes a monitoring, evaluation and reporting system for the action roadmap and, more in general, the implementation and enforcement of the GHS.

Error! Reference source not found. suggests possible indicators to track the progress of each action.

Table 3-7: Action roadmap and monitoring indicators

Action	Suggested indicators
1. Preparatory steps	
1.1 Organise a national GHS workshop	- Preparatory phase (concept and characterisation) completed - Preparatory phase (marketing & communications) completed - Implementation phase (management & logistics) completed - Steering & closing phase (Co-ordination & quality assurance) completed. The GHS workshop is successfully implemented
2. GHS-based regulatory framework and implementing activities	
2.1 Refine the Regulations	- The Regulations are completed - The Regulations are adopted by the Parliament - The Pest Control Act and Regulations are adopted by the Parliament
2.2 Develop a guidance document	- Objectives and target audience are established - Section on the physical hazards classification criteria is finalised - Section on the health hazards classification criteria is finalised - Section on the environmental hazards classification criteria is finalised - Section on the classification of mixtures is finalised - Section on the development of Safety Data Sheets is finalised - Section on the labelling is finalised
2.3 Propose substances with harmonised classification and labelling	- KRA, Government chemist, NEMA, PCPB and other relevant Government agencies check the list of CLH substances maintained by ECHA and identify substances used in Kenya - No. of CLH substances proposed - No. of CLH substances adopted
2.4 Apply to become observers in the United Nations Sub-Committee of Experts on the GHS, and the United Nations Subcommittee of Experts on the Transport of Dangerous Goods	- Kenya applies to become observer in the GHS committees
2.5 Establish a sustainable financing system for chemicals control	- Cost analysis is completed - Revenue analysis is completed - An 'optimal' mix of funding sources is established
3. Capacity Building and Training	
3.1 Define training needs and identify representatives to undertake training	- Trainees are identified (per organisation, training course)
3.2 Undertake UNITAR training courses	- Number of people (per organisation) enlisted in UNITAR trainings - Number of people (per organisation) finalising the courses successfully - Number of drop-offs
3.3 The 'trained trainers' deliver the training in their organisations	- Number of training courses offered by Kenyan trainers - Number of people (per stakeholder) enlisted in domestic trainings

Table 3-7: Action roadmap and monitoring indicators	
Action	**Suggested indicators**
	- Number of people (per stakeholder) finalising the courses successfully - Number of drop-offs
3.4 Training and capacity building by ECHA, the Commission, ICCA/Cefic and other institutions	- Number of attendees to webinars/site visits - Number of companies participating in trainings
4. Raise awareness	
4.1 Develop and implement a communication strategy	- Communication strategy completed - Resources allocated to different communication initiatives - Number of information days organised - Number of participants to communication events - Information webpages established
5. Enforcement and compliance	
5.1 Develop an enforcement strategy	- Enforcement strategy completed
5.2 Implement the enforcement strategy	- Number of inspections per intervention point (manufacturers, importers, transport and logistics providers, distributors, retailers, industrial users, professional users) - Number of non-compliances - Number of follow-up activities
6. International collaboration	
6.1 Exchange information with the other three beneficiaries of the four-year pilot projects	- Event in Kenya is successfully organised and implemented - Successful participation of the Kenyan delegation to the other three events
6.2 Exchange information with regional partners	- Regional network is established
6.3 Seek further assistance	- Cooperation opportunities are identified - Cooperation opportunities are discussed with the potential partners - cooperation partnerships are established
7. Monitoring, evaluation and reporting	
7.1 Establish a monitoring, evaluation and reporting system	- The monitoring, evaluation and reporting system is established

Table 3-8 summarises action owners, required resources and time targets for the actions in this roadmap key element.

Table 3-8: GHS key element 7: Monitoring, evaluation and reporting						
Action	**Action owner and support**				**Required resources**	
7.1 Establish a monitoring, evaluation and reporting system	The GHS Implementation Committee, with support from the Project Steering Board				0.5 FTE	
Target	**2025 Q1**	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
Action 7.1	X					

3.9 Conclusions

Key conclusions:

1. **Legislative Framework**: The Kenyan chemical regulatory framework is now aligned with the UN GHS. The framework has some imprecisions, overlaps and redundancies, but it lays a solid

foundation for chemical management. The members of the GHS Implementation Committee should work together to refine the framework, develop supporting materials and harmonise its implementation and enforcement.

2. **Sustainable Financing Challenges**: A significant challenge identified is the sustainable financing of institutional capacity for chemical control. NEMA, DOSH and the PCPB, the key regulatory bodies, suffer from inadequate funding from the National Treasury and rely partially on fee revenues and international cooperation. Establishing a sustainable financing system is crucial for effective implementation and enforcement of the GHS-aligned national legislation.

3. **Capacity Building and Training Needs**: There is a critical need for capacity building and training in GHS implementation and enforcement. The roadmap includes actions for training by UNITAR and other international bodies like ECHA, the Commission, and ICCA/Cefic. This training is essential for the effective implementation of the GHS in Kenya.

4. **Awareness and Communication Strategy**: The roadmap emphasises the importance of developing and implementing a communication strategy. This strategy is aimed at raising awareness among various stakeholders, including farmers, industry employers and workers, transport employers and workers, and consumers.

5. **Enforcement and Compliance**: Developing and implementing an enforcement strategy is vital. This includes a comprehensive inspection system to ensure compliance with GHS requirements and effective communication of hazard information.

6. **International Collaboration**: The roadmap recommends international collaboration and information exchange, highlighting the potential establishment of a network of competent authorities in the East Africa region. Such collaboration could be facilitated by entities like COMESA or the EAC.

7. **Monitoring, Evaluation, and Reporting**: Establishing a monitoring, evaluation, and reporting system is proposed to track the progress of the GHS implementation. This system will help in assessing the effectiveness of the implemented actions and in making necessary adjustments.

8. **Timeline and Resource Allocation**: The roadmap includes an indicative resource allocation and set the timeline for the actions. This planning is crucial for ensuring that the necessary resources are available for each step of the GHS implementation process.

In summary, while Kenya has made significant strides in establishing a legislative framework for chemical management, gaps in classification and labelling, sustainable financing, capacity building, and enforcement need to be addressed. The roadmap provides a comprehensive plan to overcome these challenges, emphasizing the need for international collaboration, effective communication strategies, and a robust monitoring and evaluation system.

Table 3-9 shows the Gantt chart and an indication of how resources may be allocated in the short term.

Table 3-9: GHS National Implementation Roadmap - Kenya								
Actions	**Financial resources required**	**Timeline**						
		2025 Q1	**2025 Q2**	**2025 Q3**	**2025 Q4**	**2026 Q1**	**2026 Q2**
1. Preparatory steps							
1.1 Organise a national GHS workshop		COMPLETED					
2. GHS-based regulatory framework and implementing activities							
2.1 Refine the Regulations		COMPLETED					
2.2 Develop a guidance document							X
2.3 Propose substances with harmonised classification and labelling							X
2.4 Apply to become observers in the United Nations Sub-Committee of Experts on the GHS, and the United Nations Subcommittee of Experts on the Transport of Dangerous Goods							X
2.5 Establish a sustainable financing system for chemicals control							X
3. Capacity Building and Training							
3.1 Define training needs and identify representatives to undertake training		X					
3.2 Undertake UNITAR training courses	~€20,000						
3.3 The 'trained trainers' deliver the training in their organisations	~€20,000						
3.4 Training and capacity building by ECHA, the Commission, ICCA/Cefic and other institutions	~€10,000						
4. Raise awareness							
4.1 Develop and implement a communication strategy	~€20,000						
5. Enforcement and compliance							
5.1 Develop an enforcement strategy							
5.2 Implement the enforcement strategy							
6. International collaboration							
6.1 Exchange information with the other three beneficiaries of the four-year pilot projects			X		X		X
6.2 Exchange information with regional partners							
6.3 Seek further assistance							
7. Monitoring, evaluation and reporting							
7.1 Establish a monitoring, evaluation and reporting system		X					

4 References

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