GHS Africa Pilot Project

Lessons Learned & Implementation Progress

Kenya · Nigeria · Cote d'Ivoire · Ghana

United Nations Environment Programme (UNEP)

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Executive Summary

This report presents the findings of a lessons learned assessment conducted with the four countries participating in the UNEP/SAICM GHS Africa Pilot Project: Kenya, Nigeria, Côte d'Ivoire, and Ghana. The assessment was undertaken as part of Activity 4, which aims to support the development of a globally applicable framework for the long-term implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). This assessment builds upon an earlier lessons learned exercise conducted during the development of the National GHS Roadmaps and draft Global GHS Implementation Framework in 2024, providing an opportunity to review and refine those findings based on implementation experience accumulated towards project completion. It synthesizes each country's implementation journey, draws cross-country comparisons, and identifies lessons that can inform future GHS implementation efforts globally.

The GHS Africa pilot project was implemented between July 2022 and June 2026 to support participating countries in strengthening national capacities for GHS implementation through legislative development, institutional coordination, capacity building, awareness raising, and stakeholder engagement. Country-level implementation through funding agreements between UNEP and the four countries concluded in April 2026. Sustaining the progress achieved will require continued national commitment, institutional capacity and access to resources, making the financing and institutional findings in this report particularly relevant.

To capture these experiences, a structured lessons learned survey was developed based on the National GHS Roadmaps prepared for each country. Responses were received from all four participating countries and supplemented by a review of project documentation and implementation outputs. Preliminary findings were also presented and discussed during the Regional Dialogue on Advancing Sustainable GHS Implementation in Africa, held on 29–30 June 2026 in Accra, Ghana. The dialogue provided an opportunity for government, industry and other stakeholders to clarify implementation progress, share additional experiences and provide complementary perspectives. The findings draw on these sources to document progress achieved, challenges encountered, enabling factors, and recommendations for sustaining and scaling GHS implementation efforts.

Headline findings

- Legislative progress varied considerably across the four countries. Kenya is the only participating country to have completed the adoption of national GHS legislation. The remaining countries have made substantial progress in legislative development but continue to face institutional, political, technical, and financial barriers to adoption.
- Capacity building and awareness-raising activities were successfully implemented across all four countries and represent the most consistently achieved component of the project. However, the scale, coverage, and depth of these activities varied between countries.
- Enforcement remains the weakest area of implementation. While progress has been made in developing legislative and institutional frameworks, no country has yet established a fully operational enforcement system. Enforcement activities have yet to commence in Côte d'Ivoire and Ghana. Kenya initiated implementation and enforcement activities following regulatory adoption, however in the other countries, certain GHS-related controls may be applied through existing regulatory mechanisms, but comprehensive enforcement arrangements for the new GHS frameworks remain outstanding.
- Sustainable financing emerged as the most significant challenge across all four countries. Although external project support enabled implementation activities, no country reported having a fully

established domestic financing or cost-recovery mechanism to sustain implementation in the long term. This represents the most significant post-project risk.

- The UNITAR Train-the-Trainer model was viewed as universally effective by all 4 project countries. It produced national expert pools that delivered training independently. Although the training package became available later than originally anticipated, countries were able to establish national pools of trainers and technical experts capable of independently delivering future GHS awareness and capacity-building activities, and this was consistently identified as one of the most successful and replicable elements of the project.
- Legislative development and capacity building should be considered in parallel where possible. While the original project design envisaged capacity building following legislative adoption, delays in legislative processes required a more flexible approach. Conducting training and awareness activities alongside legislative development helped maintain momentum, strengthen national expertise, and prepare stakeholders for implementation once legislation is adopted.
- Delays in agreement finalization, project start-up processes, and financial disbursements reduced the effective implementation period in several countries. Nevertheless, participating countries achieved substantial progress, demonstrating the importance of adaptive implementation approaches and strong national engagement.

The pilot has proven that GHS implementation is achievable in African contexts with structured external support, technical assistance, institutional support, and stakeholder engagement opportunities. The experiences of the four participating countries also demonstrate that there is no single pathway to successful implementation. Kenya demonstrates that legislative adoption is an important milestone that must be followed by sustained implementation efforts. Nigeria highlights the value of broad stakeholder engagement and technical readiness even while legislation remains under development. Côte d'Ivoire demonstrates how strong national ownership and coordination can drive substantial progress despite a compressed implementation period, while Ghana highlights the importance of maintaining implementation momentum and translating institutional foundations and previous experience into tangible implementation outcomes.

Key lessons learned

- National ownership and effective coordination mechanisms were among the strongest predictors of implementation progress, regardless of a country's starting point or implementation timeline.
- Legislative development consistently required more time than anticipated and often extended beyond project timeframes.
- According to feedback received from the project respondents, capacity building and stakeholder engagement were beneficial when implemented in parallel with legislative development rather than waiting for legislation to be finalized.
- Sustainable financing remains one of the greatest risks to long-term GHS implementation, with all four countries identifying ongoing resource needs beyond project closure.
- Enforcement remains the least developed component of GHS implementation and will require continued investment in institutional capacity, guidance, and training.
- Delays in agreement execution, fund transfers, administrative approvals, and political transitions significantly affected implementation timelines and should be explicitly accounted for in future projects.

An overarching lesson emerging from the pilot is that technical assistance and financial support are most effective when accompanied by sustained national ownership, institutional coordination and realistic implementation planning. The experience also demonstrates that completion of technical outputs, such as draft regulations, guidance documents and training activities, does not necessarily translate into operational implementation. Continued national efforts are needed to secure legislative approval, institutionalize technical capacities, strengthen enforcement arrangements and establish sustainable financing mechanisms.

The lessons captured through this assessment provide a foundation for further development of a GHS Implementation Framework and offer practical guidance for countries seeking to strengthen chemicals management systems and advance the long-term implementation of GHS. They also highlight opportunities for regional cooperation and peer learning, including the potential for participating countries to share technical expertise and implementation experience with other countries. Future initiatives can build on these experiences by combining country-specific support with scalable training approaches, strengthened institutional arrangements and sustained attention to regulatory implementation and enforcement.

1. Introduction

The UNEP/SAICM GHS Africa Pilot Project was implemented between July 2022 and June 2026 to support the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in four participating countries: Kenya, Nigeria, Côte d'Ivoire, and Ghana. Through a combination of legislative support, institutional strengthening, capacity building, stakeholder engagement, and awareness-raising activities, the project sought to strengthen national capacities for the sound management of chemicals and advance the adoption and implementation of GHS at the national level.

As part of Activity 4 of the project, Risk & Policy Analysts (RPA Europe) was contracted to develop National GHS Roadmaps for each participating country and a draft globally applicable framework for long-term GHS implementation. This work included a lessons learned exercise, finalized in November 2024, that captured experiences emerging during the roadmap development process and informed the proposed structure of a GHS implementation framework.

As the pilot project approached completion, a second lessons learned exercise was undertaken to complement and build upon the findings of the earlier roadmap assessment. The objective of this exercise was to capture implementation experiences accumulated during the latter stages of the project, identify factors that facilitated or constrained progress, validate and refine lessons identified during the roadmap development process, and generate additional insights to inform the further development of a globally applicable GHS implementation framework.

To support this process, a structured lessons learned survey was developed based on the National GHS Roadmaps and the proposed framework structure developed under the RPA assignment. The survey was distributed to the national focal points and project coordinators responsible for overseeing project implementation in each participating country. Responses were received from all four countries and were supplemented, where appropriate, through a review of project documentation, progress reports, workshop records, and project outputs.

The preliminary findings of the lessons learned assessment were reviewed by the Project Steering Committee and presented and discussed during the Regional Dialogue on Advancing Sustainable GHS Implementation in Africa, held on 29-30 June 2026 in Accra, Ghana. The dialogue provided an opportunity for participating countries to review and respond to the findings, clarify implementation progress, and share additional experiences and challenges. Contributions from government representatives, industry stakeholders and implementation partners provided complementary perspectives to the national survey responses, helping to contextualize the findings and identify additional lessons. Feedback received during the dialogue was considered in finalizing the assessment, with differences in reported implementation status noted where further verification was required.

The findings presented in this report therefore draw primarily on information provided by the participating countries through their designated focal points. As such, the achievements, challenges, observations, and lessons reflected in the country profiles represent the experiences and perspectives reported by national stakeholders. UNEP has synthesized these responses to identify common themes, recurring challenges, and transferable lessons that may be relevant to future GHS implementation initiatives.

The experiences of the four pilot countries demonstrate that there is no single pathway to successful GHS implementation. Countries entered the project with different levels of institutional readiness, legislative development, technical capacity, and stakeholder awareness. They also faced varying implementation conditions, including differences in project start-up timelines, access to financial resources, administrative procedures, and national priorities. These contextual differences should be considered when interpreting the findings presented in this report.

The lessons identified through this exercise are intended to support future efforts to strengthen chemicals management systems, improve hazard communication, and promote the sound management of chemicals in developing countries.

2. Country Profiles

The following country profiles summarize the implementation experiences of Kenya, Nigeria, Côte d'Ivoire, and Ghana based on responses received through the lessons learned survey and a review of relevant project documentation. The profiles highlight each country's starting point, key achievements, remaining gaps, and lessons learned during implementation of the UNEP/SAICM GHS Africa Pilot Project.

The observations presented primarily reflect the experiences and perspectives reported by participating countries through their designated focal points and project coordinators, supplemented by project documentation and discussions during the Regional Dialogue held in June 2026. The dialogue provided an opportunity for government, industry and other stakeholders to clarify implementation progress and share additional perspectives. Where relevant, these contributions have been incorporated with appropriate attribution. The profiles are intended to document implementation experiences and identify lessons for future GHS initiatives, rather than provide independently verified assessments of all national implementation milestones.

2.1. Kenya

Starting point

Kenya entered the project with a relatively advanced foundation for GHS implementation, including existing chemicals legislation, institutional structures and an established multi-stakeholder coordination mechanism for chemicals management. However, gaps remained in the legal framework, requiring further review and development to align national requirements with GHS. Regulatory authorities and enforcement agencies also required additional technical capacity, resources and training to support effective implementation and enforcement nationwide.

Key milestones achieved

- Two regulatory instruments reviewed, amended and adopted in 2024 to strengthen alignment with GHS: the Environment Management and Coordination (Toxic and Hazardous Chemicals and Materials Management) Regulations and the Pest Control Products (Labelling, Advertising and Packaging) Regulations. A national labelling guideline was subsequently developed in 2025, with its application communicated through a circular issued by the Pest Control Products Board.
- During the Regional Dialogue, Kenya clarified that initial enforcement activities have primarily focused on awareness raising and supporting industry compliance, rather than applying penalties. This reflects a phased approach to implementation following legislative adoption. A draft harmonized GHS compliance checklist to support coordinated inspections and compliance monitoring was developed across different government agencies.
- National governance and coordination mechanisms strengthened, with GHS implementation integrated into the existing National Multisectoral Committee on Sound Chemicals Management and supported through a dedicated implementation structure.
- National capacity for GHS implementation strengthened through the training and certification of 14 experts as trainers through the UNITAR GHS course. These experts then domesticated the GHS training manual and developed national training materials.

Gap assessment and National GHS Roadmap completed and validated, providing a structured framework for implementation priorities, stakeholder engagement, and future action.

- Foundations for compliance monitoring and enforcement were established, including the development of a joint inspection checklist and the initiation of enforcement.

Remaining gaps and observations

Despite being the most advanced of the four GHS project countries in terms of legislative implementation, Kenya's survey responses highlight that significant work is still required to translate the legislative framework into effective implementation. Kenya rated their legislation clarity at 4/5 and identified the frequent revision of the UN GHS Purple Book as an ongoing challenge, requiring continuous updates to national regulations.

Enforcement has started but remains at an early stage of development. Survey responses indicate that inspectors require further capacity building on the interpretation and enforcement of GHS labels. The joint inspection checklist exists but is still undergoing approvals and supporting capacity building activities. The scope of GHS requirements for pharmaceuticals remains unclear to enforcement officers.

Industry representatives during the June 2026 regional dialogue highlighted uneven GHS awareness and compliance across sectors, while government representatives acknowledged challenges in reaching informal businesses and strengthening inspection capacities. These perspectives underscore the gap between formal regulatory adoption and consistent implementation in practice.

Kenya also identified the need to develop both dedicated communication and enforcement strategies, meaning that while the legislative foundation is in place, the systems required to support long-term implementation are still being strengthened. In addition, training efforts have primarily focused on regulators, inspectors, industry, and civil society, while stakeholder groups such as customs authorities, academia, SMEs, and emergency responders have yet to be systematically covered.

Kenya also identified the need for sustainable financing mechanisms to support ongoing implementation, capacity building, and enforcement activities beyond the lifetime of the project. Kenya's experience illustrates a transition from legislative development to implementation. While the project successfully addressed legislative and institutional gaps, the country's remaining challenges are primarily operational, focusing on enforcement, stakeholder outreach, institutional capacity, sustainable financing, and maintaining alignment with evolving international GHS requirements.

2.2. Nigeria

Starting point

Nigeria entered the project with a partial foundation for GHS implementation, including two national regulations with limited GHS provisions and an existing National Committee on Chemicals Management. These provided an institutional basis for advancing GHS implementation; however, the existing regulatory framework was not fully aligned with GHS requirements and awareness of GHS among regulators, industry, and other stakeholders remained limited. In addition, enforcement mechanisms and technical capacity for implementation were underdeveloped, requiring significant efforts in legislative strengthening, stakeholder engagement, and capacity building.

Key milestones achieved

- Two national GHS-based draft regulations developed (NAFDAC and NESREA), significantly advancing the alignment of Nigeria's regulatory framework with GHS requirements. During the Regional Dialogue, government representatives reported that many GHS requirements were already incorporated into existing regulatory instruments, rather than introduced exclusively through new standalone legislation. They further indicated that relevant provisions had acquired legal effect and could be enforced through existing regulatory authorities.
- A national GHS guidance document completed, including implementation and enforcement provisions such as penalties, inspection checklists, and joint inspection procedures.
- National capacity for GHS implementation was strengthened through three national stakeholder capacity building sessions and training programmes held across Abuja, Kano, and Lagos, covering all 8 stakeholder groups identified under the project and achieving the broadest stakeholder coverage among the pilot countries.
- Industry stakeholders actively engaged in the implementation process, with respondents reporting broad support for GHS and recognition of its benefits for business, trade, and chemical management.
- Nigeria established formal representation on the UN Sub-Committee of Experts on GHS (UNSCEGHS), creating an opportunity for greater participation in international discussions on GHS implementation and technical developments. Under the project, it is the only pilot country to report achieving this international representation, however is distinct from active participation.

Remaining gaps and observations

Despite substantial progress in legislative development, Nigeria had not yet completed the adoption of its draft GHS regulations at the time of the survey. The draft regulations developed by NESREA and NAFDAC remained subject to internal review and approval processes, delaying their formal enactment. As a result, enforcement activities under the new regulations had not yet commenced, and project implementation remained dependent on stakeholder awareness, industry engagement, and voluntary uptake of GHS principles.

During the Regional Dialogue, government representatives highlighted existing regulatory provisions through which certain GHS-related requirements could already be applied. These provisions should be distinguished from the two new draft regulations developed under the project. Although existing mechanisms provided a foundation for GHS implementation, the formal adoption and operationalization of the new regulations remained outstanding.

Survey responses from Nigeria indicate that administrative procedures within government agencies represented one of the most significant implementation challenges. Technical work, stakeholder consultations, and capacity-building activities progressed following a decision to not wait on legislation as regulatory approval processes proceeded more slowly than anticipated and extended beyond the project timeframe.

Nigeria reported strong engagement from industry stakeholders and broad participation across all stakeholder groups. This suggests that stakeholder buy-in was not a major barrier to implementation. Instead, the primary constraints were institutional and procedural, highlighting the importance of understanding internal regulatory approval pathways and timelines when planning GHS implementation initiatives. Industry representatives during the Regional Dialogue in June 2026 nevertheless identified continuing awareness and technical capacity gaps, particularly among smaller businesses and domestic chemical manufacturers, indicating that broad stakeholder engagement has not yet translated into consistent implementation across all industry segments.

Nigeria's experience demonstrates that strong stakeholder engagement, technical preparation, and industry support do not automatically translate into rapid regulatory adoption. While the project managed to strengthen awareness, capacity, and regulatory readiness, the country's remaining challenge is to convert this momentum into formal legislative adoption and implementation.

Nigeria's experience also demonstrates the value of leveraging existing national coordination mechanisms rather than establishing new institutional structures specifically for GHS implementation. The existing National Committee on Chemicals Management provided an institutional foundation for stakeholder engagement and coordination, illustrating how GHS implementation can be integrated into broader national chemicals management arrangements.

While Nigeria established formal representation on the UNSCEGHS, translating this into sustained participation in international technical discussions remains an opportunity for further development, particularly given the financial and institutional resources required to support regular engagement.

The experience highlights the importance of understanding internal agency review processes and approval timelines at the outset of implementation, as these can significantly influence the pace of legislative reform. It also demonstrates the value of maintaining flexibility in project sequencing. Although the original project design envisaged stakeholder engagement and capacity building following legislative adoption, Nigeria's experience showed that these activities could be successfully implemented in parallel with the legislative process. This approach helped maintain momentum, strengthen technical readiness, and build broad stakeholder and industry support despite delays in regulatory approval.

2.3. Cote d'Ivoire

Starting point

Côte d'Ivoire entered the project with a limited foundation for GHS implementation. GHS had not yet been formally implemented, or made mandatory at the national level, and draft chemicals legislation existed but had not been adopted. While some companies with international supply chain linkages were voluntarily applying GHS elements, awareness, implementation capacity, and institutional arrangements for GHS remained underdeveloped.

Key milestones achieved

- GHS provisions have been incorporated into draft chemicals management legislation and related regulatory instruments, including a newly drafted GHS implementation decree and amendments to draft decrees addressing waste oil and industrial residues. A preliminary review of the GHS decree was undertaken, but the national legislative validation workshop was not completed.
- National technical capacity strengthened through UNITAR's GHS e-learning programme, with 13 of 16 participants successfully completing the course. National training workshops were also organized for the agricultural, transport, industrial and consumer goods sectors, supported by additional UNEP and UNITAR capacity-building activities.
- GHS considerations integrated into relevant national discussions and stakeholder processes related to chemicals management, waste, transport, and consumer products, increasing the visibility of GHS across sectors.
- National coordination mechanisms of the GHS committee became operational and supported implementation activities ahead of the receipt of access to project funds, maintaining momentum during administrative processes.

Remaining gaps

Despite significant progress during the project period, key elements of GHS implementation remain incomplete. Legislative adoption, enforcement activities, and monitoring and evaluation systems for GHS implementation had not yet commenced at the time of the survey. Côte d'Ivoire assigned its draft legislation a clarity score of 3/5 indicating neither clear nor unclear, the lowest among the participating countries who provided self-assessment ratings of 4 (Ghana and Kenya) and 5 (Nigeria), suggesting that further technical refinement of the legislative framework may be required alongside the formal adoption process.

Financing also remains a significant challenge. Côte d'Ivoire reported continued reliance on government budget allocations and external donor support to sustain implementation activities. Although the country sought additional support through the Global Framework on Chemicals (GFC) Fund, the application was unsuccessful. As a result, the long-term financing pathway for GHS implementation remains uncertain, creating risks for sustaining momentum beyond the lifetime of the project.

A notable feature of Côte d'Ivoire's implementation experience was the relatively short effective implementation period available for project activities. Although the project agreement was signed in 2023, delays in accessing project funds meant that the majority of implementation activities were undertaken from early 2025 onwards. Unlike some other participating countries, Côte d'Ivoire had limited ability to pre-finance activities using institutional resources while awaiting project funds. Despite these constraints, the country achieved substantial progress in legislative development, stakeholder engagement, and capacity building.

A national legislative validation workshop, initially scheduled for April 2026, was postponed accommodating the participation of relevant senior officials and could not be completed before the project agreement ended. This led to a subsequent decision to further refine the legislation, illustrating how consultation and administrative scheduling requirements can affect the completion of legislative milestones, even where technical drafting has progressed.

Overall, Côte d'Ivoire's experience demonstrates that significant progress can be achieved even within a compressed implementation period when strong national ownership, coordination, and stakeholder commitment are present. At the same time, the country highlights the importance of ensuring timely access to project resources and establishing sustainable financing mechanisms to support implementation beyond project closure. Discussions during the Regional Dialogue also highlighted uneven private-sector engagement. While some manufacturers had begun applying GHS-related hazard communication practices, representatives of the agricultural inputs sector reported limited awareness and compliance, indicating a need for more systematic industry outreach and sector-specific capacity building.

2.4. Ghana

Starting point

Ghana entered the project with an existing institutional foundation, including existing coordination mechanisms and prior GHS-related work undertaken through the Special Programmes project. This earlier work had already initiated discussions on GHS implementation and provided a basis for further action under the pilot project. In addition, the Environmental Protection Act 2025 (Act 1124) provided a legislative framework within which more comprehensive GHS requirements could be advanced. Discussions during the Regional Dialogue indicated that certain GHS-related requirements were already being applied through existing chemical import control procedures, including the review of hazard communication documentation for industrial chemicals. However, significant work remains to operationalize GHS implementation, strengthen stakeholder awareness and capacity, and translate existing institutional arrangements into effective implementation mechanisms.

Key milestones achieved

- A first draft of GHS legislation prepared following national stakeholder consultations and technical support. Further stakeholder review and refinement were required before the draft could be advanced for consideration through the relevant national legal approval processes.
- GHS capacity-building activities delivered through UNITAR-supported training and national stakeholder workshops, including training for commercial pest control practitioners and industry stakeholders. UNITAR provided 16 e-learning training places, with 8 stakeholders passing.
- A national network of GHS Train-the-Trainer alumni established and maintained to support future awareness raising and capacity-building activities.
- Preparatory steps taken towards longer-term implementation, including reported allocations of financial and human resources, although a dedicated monitoring and reporting system for GHS implementation had not yet been established.

Remaining gaps

Despite existing institutional arrangements and previous GHS-related activities, Ghana had not completed the legislative development and adoption process by project closure. Survey responses reported that the draft legislation remained under review by the Attorney General's Department pending progression through the parliamentary process. In actuality, the first draft had been prepared, but further stakeholder consultation, technical refinement and subsequent consideration by the relevant national authorities remains outstanding. Consequently, the project has not established a comprehensive regulatory basis for national GHS enforcement.

During the Regional Dialogue, participants described existing procedures through which the Environmental Protection Agency reviews GHS-related documentation for industrial chemical imports. Although these procedures provide an entry point for applying GHS principles, they should be distinguished from a comprehensive national GHS enforcement framework.

Survey responses also identified delays in the receipt of project funding and changes in government leadership during the implementation period as significant factors affecting project progress. These challenges contributed to delays in the implementation of planned activities and reduced the time available for advancing legislative and institutional reforms.

While capacity-building activities were conducted across most stakeholder groups, respondents indicated that additional support and encouragement would be required to strengthen industry participation and preparedness for GHS implementation. Participants during the Regional Dialogue also emphasized the importance of expanding GHS awareness beyond regulatory authorities and industry, including through educational institutions and outreach to informal businesses and farming communities. The survey also noted limited collaboration and exchange with other participating project countries, suggesting opportunities for greater peer learning and regional cooperation in future initiatives.

Ghana reported that financial and human resources had been allocated to support future GHS implementation activities. However, the long-term sustainability of implementation efforts will depend on the successful adoption of legislation, continued institutional commitment, and the availability of resources to support enforcement, awareness raising, and capacity development activities.

Ghana's experience demonstrates that existing institutional arrangements, previous project experience, and a supportive legislative framework can provide an important foundation for GHS implementation. However, these enabling conditions alone do not guarantee implementation progress. The country's experience highlights the importance of maintaining implementation momentum, ensuring continuity during periods of institutional or political change, and translating preparatory activities and institutional readiness into tangible implementation outcomes.

3. Cross-Country Comparison

While the country profiles presented in Section 2 highlight the unique implementation experiences of each participating country, common patterns also emerge across the pilot project. This section compares progress across key elements of the National GHS Roadmaps, identifies areas where implementation was consistently successful or challenging, and examines the factors that influenced outcomes across the four participating countries. The analysis is based primarily on survey responses provided by national focal points and project coordinators and seeks to identify lessons that may inform future GHS implementation initiatives and the refinement of a nationally applicable GHS Implementation Framework.

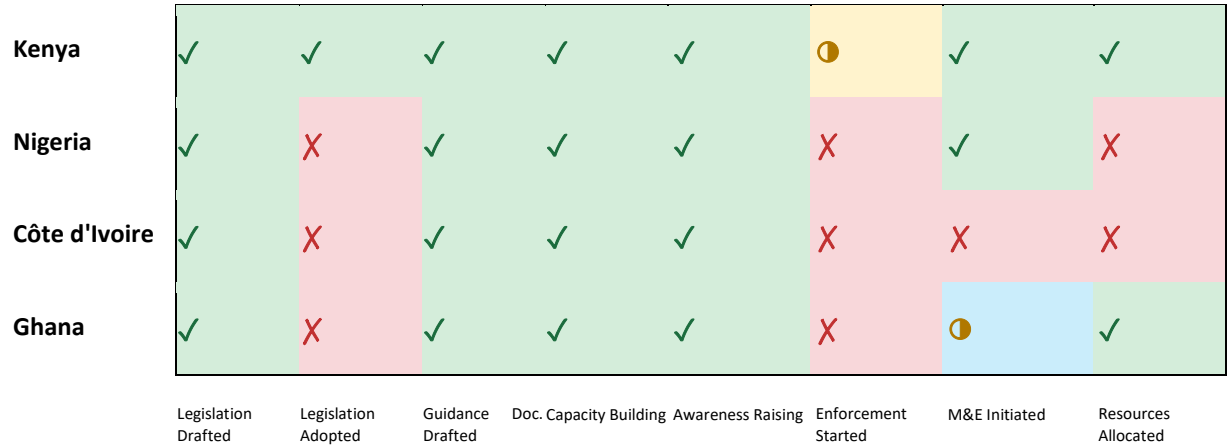
An important factor influencing implementation progress was the amount of time countries had available to undertake project activities. Although participating countries operated under similar funding agreements and shared a common project end date, delays associated with agreement finalization, administrative processes, government procedures, and the transfer of project funds reduced the effective implementation period available in several countries. These findings align with the administrative and institutional challenges reported by participating countries and highlight the extent to which implementation progress can be influenced by factors beyond the direct control of project teams.

The comparison provides a snapshot of implementation progress at the conclusion of the pilot project rather than a final assessment of national GHS implementation. GHS implementation is an ongoing process that extends beyond the lifetime of individual projects and requires continuous legislative updates, capacity building, awareness raising, enforcement, and institutional strengthening. Consequently, countries are expected to continue advancing implementation efforts beyond the project period, and differences observed in this section should be understood as reflecting varying stages of progress along a longer-term implementation pathway rather than fixed end states.

3.1. Implementation Stage Overview

Respondents were invited to indicate how far their projects had progressed against the major stages in their respective implementation roadmaps and the overarching GHS framework established under this project. The implementation stage overview provides a snapshot of progress reported by participating countries at the conclusion of the pilot project. The comparison presented in Tables 1 and 2 highlights a common pattern across all four countries. Preparatory activities, legislative drafting, awareness raising, and capacity building achieved the highest levels of progress and were the areas most directly supported by the project. In contrast, legislative adoption, enforcement, and sustainable financing proved more challenging, as these depended on factors beyond the direct control of project teams, including political processes, administrative approvals, institutional mandates, and national budget allocations.

Table 1: Implementation Stage by Country



✓ Completed ◑ In Progress ✗ Not Started

Table 2: Roadmap element progress summary

Activity	Kenya	Nigeria	Côte d'Ivoire	Ghana
Preparatory Steps	✓	✓	✓	✓
Regulatory Framework	✓	◑	◑	◑
Capacity Building	✓	✓	◑	✓
Awareness Raising	✓	✓	◑	✓
Enforcement	◑	✗	✗	✗
International Collaboration	✓	✓	◑	✗
Monitoring & Reporting	✓	✓	✗	◑

✓ Completed ◑ In Progress ✗ Not Started

The findings indicate that countries generally progressed most rapidly in areas directly supported through project activities, while implementation slowed where progress depended on broader political, institutional, or financial processes. Taken together, the findings suggest that future GHS implementation initiatives should continue to prioritize capacity building and stakeholder engagement while placing greater emphasis on supporting legislative adoption processes,

enforcement readiness, and sustainable financing mechanisms to ensure long-term implementation beyond the lifetime of donor-funded projects.

An important factor influencing implementation progress was the amount of time countries had available to undertake project activities. Although participating countries operated under similar funding agreements and shared a common project end date, delays associated with agreement finalization, administrative processes, government procedures, and the transfer of project funds reduced the effective implementation period available in several countries. These findings align with the administrative and institutional challenges reported by participating countries and highlight the extent to which implementation progress can be influenced by factors beyond the direct control of project teams.

The survey responses identified administrative procedures and project start-up processes as important implementation challenges. To provide additional context, Table 3 presents project administrative data on agreement timelines and access to project funds. Unlike the findings presented elsewhere in this section, the information in Table 3 is derived from project records rather than survey responses.

Table 3: Project Timelines and Effective Implementation Periods Across Participating Countries

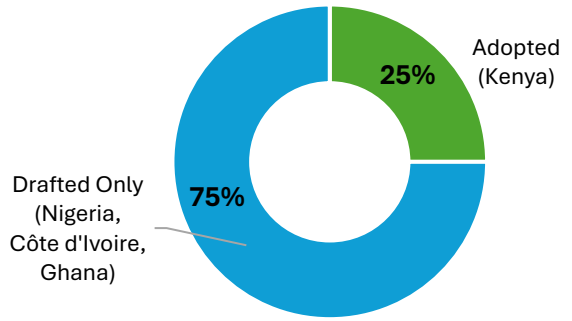
Country	Agreement Implementation Period	First Access to Project Funds
Nigeria	Apr 2023 – Apr 2026	2023
Ghana	May 2023 – Apr 2026	2024
Côte d'Ivoire	Jul 2023 – Apr 2026	2025
Kenya*	Apr 2024 – Apr 2026	2025

*Kenya was able to initiate project activities using institutional resources prior to receipt of project funds.

3.2. Legislation: Target vs Reality

Legislative development was a central component of the pilot project and a prerequisite for the long-term implementation and enforcement of GHS. While all four countries made progress in developing or strengthening their legislative frameworks, only Kenya completed the formal adoption of GHS legislation during the project period. The remaining countries advanced draft legislation to varying degrees but had not completed the adoption process at the time of the survey, Figure 1.

Figure 1: Legislation Status Across Pilot Countries



The survey responses suggest that legislative drafting was generally achievable within the project timeframe, whereas legislative adoption was more dependent on factors outside the direct control of project teams, including political processes, administrative procedures, inter-agency coordination, and government approval mechanisms. As a result, the gap between legislative development and legislative adoption emerged as one of the most consistent implementation challenges across the pilot countries.

The countries also reported different barriers to progressing legislation. Nigeria reported that draft regulations covering both NESREA and NAFDAC had been developed, with implementation and enforcement provisions already incorporated, but remained subject to internal agency review and approval processes since 2025. Ghana reported that its draft legislation was under review by the Attorney General's Department pending further progression through the legislative process. Côte d'Ivoire reported that further technical refinement of its draft legislation was still required prior to adoption.

Taken together, the findings suggest that countries require different forms of support depending on their stage of legislative development. While some countries may benefit most from technical assistance to strengthen draft legislation, others may require support in navigating administrative approval processes, building political support, or preparing for implementation once legislation is adopted.

3.3. Shared Challenges

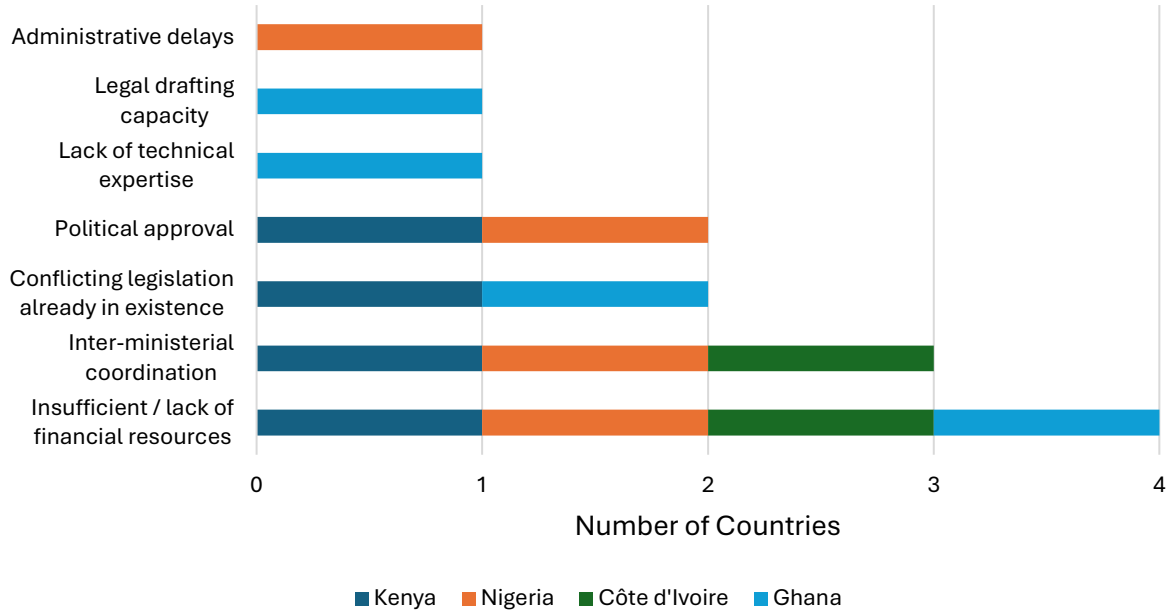
Figure 2 highlights the challenges most frequently reported by participating countries during implementation. Insufficient financial resources emerged as the only challenge reported by all four countries, making it the most consistently reported challenge across the pilot. Survey responses indicate that all four countries would have welcomed additional financial resources to expand the scope, coverage, or pace of implementation activities. Respondents highlighted opportunities for additional stakeholder outreach, awareness raising, training, legislative support, and follow-up activities that could have been pursued with greater resources.

Inter-ministerial coordination was the second most frequently reported challenge, identified by three of the four countries. This reflects the inherently cross-sectoral nature of GHS implementation, which requires coordination between institutions responsible for environment, health, labour, transport, trade, customs, agriculture, and industry. Effective implementation therefore depends not only on

technical capacity, but also on the ability of multiple institutions to coordinate actions, align mandates, and support common implementation objectives. The findings suggest that establishing coordination mechanisms and securing institutional buy-in may be as important as providing technical support for legislative development.

The findings also suggest that institutional and political challenges were generally more significant barriers than technical challenges. While only one country reported legal drafting capacity and technical expertise as major constraints, multiple countries identified political approvals, conflicting legislation, administrative procedures, and coordination challenges as factors affecting implementation progress. This suggests that future GHS implementation initiatives may benefit from placing greater emphasis on institutional coordination, legislative alignment, political engagement, and implementation planning alongside technical support and capacity-building activities.

Figure 2: Shared Challenges
(Number of Countries Reporting)



Taken together, the findings indicate that the most significant implementation challenges were not solely technical in nature. Rather, they reflected the broader institutional, financial, and administrative environment within which GHS implementation takes place.

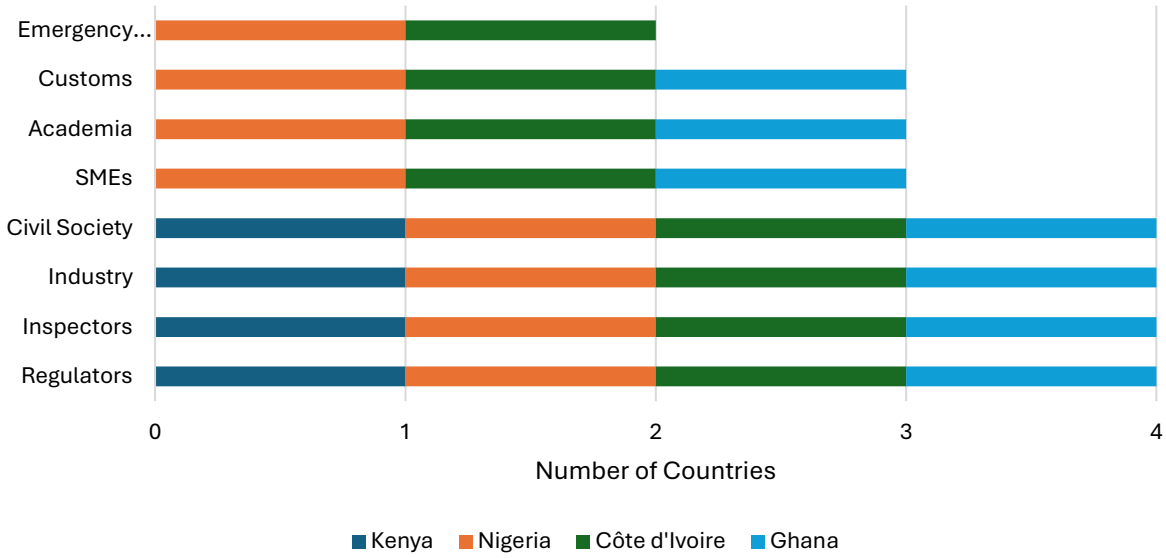
3.4. Stakeholder Groups Reached by Training

The stakeholder groups reached through GHS training activities varied across participating countries. Nigeria and Côte d'Ivoire reported the broadest coverage, reaching all eight stakeholder groups identified under the project. Ghana reported reaching seven stakeholder groups, while Kenya reported training activities focused on four groups.

Figure 3 shows that regulators, inspectors, industry representatives, and civil society organizations were reached by all four countries and represent the most consistently targeted stakeholder groups.

In contrast, SMEs, academia, customs authorities, and emergency responders were reached less consistently across the pilot countries. Emergency responders were the least frequently reached stakeholder group, with only two countries reporting dedicated training activities.

Figure 3: Stakeholder Groups Reached by GHS Training



The findings suggest that countries generally prioritized stakeholder groups most directly involved in the development, implementation, and oversight of GHS requirements. However, the variation in stakeholder coverage also highlights different national approaches to implementation. Some countries focused on broad awareness raising across a wide range of stakeholders, while others concentrated resources on priority institutions and sectors most directly linked to legislative development, compliance, and enforcement.

The comparison also suggests that broader stakeholder coverage alone does not necessarily translate into faster implementation progress. While Nigeria and Côte d'Ivoire achieved the widest training reach, Kenya progressed furthest in legislative adoption and enforcement despite reporting a narrower training focus. This indicates that the effectiveness of capacity-building efforts may depend not only on the number of stakeholder groups reached, but also on how training activities are aligned with national implementation priorities and institutional responsibilities.

3.5. Sustainable Financing

An important finding is that no single financing model emerged across the four countries, Table 4. Respondents identified a range of potential approaches, including government budget allocations, fees and charges, internally generated revenue, donor funding, public-private partnerships, and dedicated chemicals funds. This suggests that future GHS implementation frameworks may need to provide flexibility for countries to develop financing mechanisms that reflect their institutional arrangements, regulatory systems, and national circumstances rather than promoting a single financing model.

Table 4: National Approaches and Considerations for to Financing GHS Implementation

Country	Current Sources	What they recommend other countries to do	Analysis
Kenya	Govt budget, fees & charges, donor funding	Dedicated chemicals fund in law; investment incentives	No ring-fenced financing yet (biggest remaining gap)
Nigeria	Govt fees & charges, internally generated revenue	Fees & charges, internal funds	Not relying on govt budget, moving toward self-generated revenue
Côte d'Ivoire	Govt budget, donor funding only	Intl orgs, bilateral/multilateral, PPPs	Applied for GFC Fund and was rejected, highly donor-dependent
Ghana	Govt budget, fees & charges, donor, internal	Fees & charges	Broadest current sources but competing demands limit each

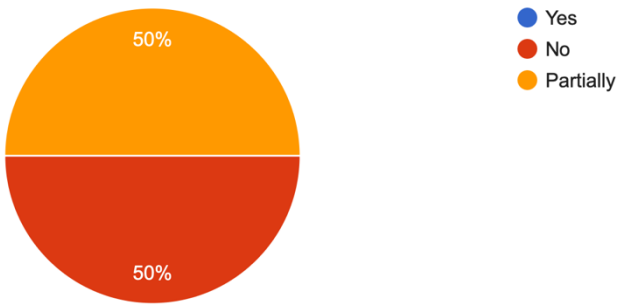
The financing models reported by participating countries vary considerably in both structure and maturity. Kenya identified the establishment of a dedicated chemicals fund through legislation as a potential long-term solution but has not yet established such a mechanism. Nigeria has explored multiple domestic financing options, including regulatory fees administered through NESREA and NAFDAC, internally generated revenue, national budget allocations, and opportunities to leverage related initiatives. While these mechanisms remain under development, they provide a potential pathway toward greater financial sustainability. Côte d'Ivoire currently relies primarily on government budget allocations and donor funding and continues to explore external financing opportunities, including international funding mechanisms and partnerships. Ghana reported the broadest mix of current financing sources, including government funding, donor support, fees and charges, and internally generated revenue, although respondents noted that competing demands continue to constrain available resources.

Taken together, the findings suggest that sustainable financing remains one of the least developed aspects of long-term GHS implementation. While countries have begun exploring a variety of financing mechanisms, no single model emerged as clearly preferred or fully operational. This suggests that future GHS implementation frameworks should provide flexibility for countries to develop financing approaches that reflect their institutional arrangements, regulatory systems, and national circumstances.

3.6. Monitoring and Evaluation

Monitoring and evaluation remain one of the least developed components of GHS implementation across the participating countries. The survey asked each country whether they have an M&E system for GHS implementation. As shown in Figure 4, none of the participating countries reported having a fully operational M&E system. Kenya and Nigeria reported having partially developed systems, whereas Côte d'Ivoire and Ghana reported having no M&E system in place.

Figure 4: Existence of National GHS Monitoring and Evaluation Systems



The survey responses suggest that M&E development has generally lagged behind legislative development, capacity building, and awareness-raising activities. Countries have focused their efforts on establishing legislative frameworks, strengthening institutional capacity, and preparing stakeholders for implementation, while systems for measuring implementation progress and outcomes have received comparatively less attention.

The reasons for this vary between countries. Côte d'Ivoire reported that GHS implementation remains voluntary and therefore is not yet being formally monitored. Ghana indicated that the development of an M&E system is expected to follow legislative adoption and implementation. Kenya reported that different sectors are currently at different stages of implementation, creating challenges for the development of a unified monitoring framework. Nigeria reported monitoring activities related to participation, training, and implementation progress, although a comprehensive national M&E system has not yet been fully established.

The findings suggest that most countries are currently collecting information on activities and outputs, such as the number of workshops conducted, stakeholders trained, trainers certified, or legislative milestones achieved. However, considerably less information is available on implementation outcomes, including changes in industry practices, compliance levels, enforcement performance, or the extent to which GHS requirements are being applied across sectors.

This creates an important evidence gap. While countries can demonstrate that awareness-raising and capacity-building activities have taken place, there is limited information available to assess the longer-term effectiveness of these interventions or their contribution to improved chemicals management outcomes. For example, countries can report the number of trainers certified or stakeholders reached through training activities, but there is little systematic information available on how these activities have influenced compliance, hazard communication practices, or implementation performance.

The findings suggest that the development of a standardized M&E framework could represent a valuable addition to the Global GHS Implementation Framework. Common indicators, reporting templates, and guidance on monitoring implementation progress could help countries move beyond activity tracking and generate more consistent evidence on implementation outcomes. Stronger M&E systems may also support countries in demonstrating results, informing policy decisions, and strengthening the case for continued domestic and external investment in GHS implementation.

4. Lessons Learned & Recommendations

The survey responses reveal a number of recurring lessons across the four participating countries. While countries entered the project with different levels of readiness and progressed at different rates, several common themes emerged consistently throughout the assessment.

One of the strongest lessons relates to the sequencing of activities. Countries consistently reported that legislative development, stakeholder engagement, and capacity-building activities should begin as early as possible and, where feasible, be implemented in parallel rather than sequentially. The original project design envisaged capacity building following legislative development. However, delays in legislative approval processes meant that countries which continued awareness raising, training, and stakeholder engagement activities alongside legislative development were generally better able to maintain implementation momentum and strengthen national readiness for implementation.

The findings also highlight the importance of early institutional planning. Delays associated with administrative procedures, inter-ministerial coordination, political transitions, and financing arrangements frequently affected implementation timelines. Countries reported that clearly identifying competent authorities, establishing coordination mechanisms, mapping legislative approval pathways, and securing long-term financing arrangements at an early stage could have accelerated implementation progress and reduced project risks.

The lessons and recommendations summarized in Table 5 below reflect the experiences reported by participating countries and may help inform future GHS implementation initiatives and the refinement of the Global GHS Implementation Framework.

Table 5: Lessons Learned and Recommendations Based on Country Experiences

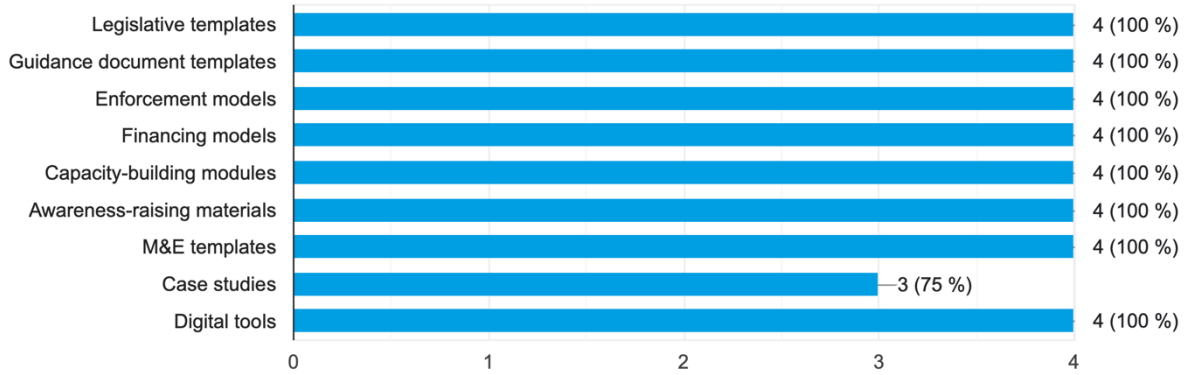
What Worked	What Did Not Work	Recommendation
Initial GHS assessments and national roadmaps helped identify country-specific gaps and implementation priorities.	Delays in initiating legislative development following the assessments created implementation bottlenecks.	Use initial assessments and roadmaps to identify legislative needs and initiate necessary reforms early, allowing time for consultation and approval.
UNITAR Train-the-Trainer model which was replicable and scalable across all four countries	Delaying capacity-building activities until legislation was finalized slowed implementation progress.	Begin capacity-building activities early and implement them in parallel with legislative development.
Strong institutional coordination mechanisms accelerated implementation.	Complex multi-agency review and approval processes extended implementation timelines.	Designate and empower the Competent Authority and coordination mechanism at the outset of implementation.

Multi-sectoral consultation strengthened ownership and stakeholder buy-in.	Reliance on external funding without a sustainability pathway created uncertainty beyond the project period.	Develop sustainable financing arrangements and resource mobilization plans from project inception.
Leveraging existing national coordination mechanisms, as demonstrated by Nigeria's use of its National Committee on Chemicals Management, provided a foundation for stakeholder engagement and coordination.		Assess existing national coordination mechanisms at project inception and build on them where appropriate, rather than automatically establishing new structures.

Respondents were asked to identify the types of guidance and implementation support that would be most useful for strengthening GHS implementation globally. Figure 5 demonstrates a high level of consensus among participating countries regarding the resources that should be included within a Global GHS Implementation Framework. Legislative templates, guidance document templates, enforcement models, financing models, capacity-building modules, awareness-raising materials, monitoring and evaluation templates, and digital tools were selected by all four countries. Case studies were selected by three of the four countries.

The findings suggest that countries view GHS implementation as a multifaceted process requiring support across the full implementation cycle, from legislative development and capacity building to enforcement, financing, monitoring, and stakeholder engagement. Rather than identifying a small number of priority areas, respondents broadly selected almost all available categories of support, indicating a preference for a comprehensive package of practical tools, guidance materials, and implementation resources. This also suggests that countries do not perceive the remaining barriers to GHS implementation as solely legislative or technical in nature, but as requiring coordinated support across multiple aspects of implementation.

Figure 5: Most useful guidance's to support a global framework on GHS



While Figure 5 identifies the types of guidance and tools that countries would find most useful, the pilot project also generated practical implementation approaches that proved effective across multiple countries. Several of these approaches were applied successfully in different institutional and regulatory contexts, suggesting that they may be suitable for replication in future GHS implementation initiatives and incorporation into the Global GHS Implementation Framework.

The findings suggest that future GHS implementation initiatives should focus not only on legislative development, but also on establishing practical systems and capacities that support implementation over time. Several of the approaches identified above were successfully applied across countries with different starting points and levels of institutional capacity, suggesting that they may form useful building blocks for a future GHS Implementation Framework. In contrast, outcomes such as legislative adoption, enforcement progress, or participation in international processes appear to be more strongly influenced by country-specific institutional, political, and resource conditions

Table 6: Replicable practices emerging from the GHS Africa pilot project

Replicable Practice	Evidence from Pilot
National GHS Roadmaps	Provided a structured implementation pathway and common framework for planning activities.
UNITAR Train-the-Trainer model	Successfully established national pools of experts in all participating countries and was consistently identified as one of the most effective project components.
Multi-stakeholder coordination mechanisms	Helped bring together regulators, industry, labour, customs, academia, and civil society to support implementation.
Parallel legislative development and capacity building	Countries that continued training and awareness raising while legislation was under development-maintained momentum and improved readiness for implementation.
Use of national trainers and locally adapted training materials	Increased national ownership and reduced reliance on external experts.
Regional and international knowledge exchange	Participation in regional workshops, peer learning activities, and international GHS forums helped strengthen technical capacity and implementation awareness.
Development of practical implementation tools	Guidance documents, inspection checklists, enforcement procedures, and implementation roadmaps helped translate legislation into practice.

5. Potential Opportunities for Regional Replication

Participating countries were asked to identify other countries within their region that they believe may be well positioned to begin or advance GHS implementation, Table 6. While responses varied, the nominations provide an initial indication of where participating countries see opportunities for regional replication, knowledge sharing, and technical cooperation.

Table 6: Countries Identified by Respondents as Potential Candidates for Future GHS Implementation Support

Nominating Country	Recommended Countries	Rationale / Notes
Kenya	Tanzania, Uganda, Rwanda	East African neighbours with existing institutional capacity and trade links.
Nigeria	Togo, Benin, Liberia, Gambia, Sierra Leone, Cape Verde	West African neighbours that share trade corridors with Nigeria.
Côte d'Ivoire	*No specific candidates identified*	Respondent indicated that neighbouring countries are not yet actively engaging with GHS and noted limited activity by regional bodies in this area.
Ghana	*No specific candidates identified*	No regional candidates were identified in the survey response.

The responses suggest that countries view regional cooperation and peer exchange as important mechanisms for accelerating GHS implementation. Kenya identified Tanzania, Uganda, and Rwanda as potential candidates, citing existing institutional capacity and regional trade linkages. Nigeria recommended several West African countries that share trade corridors and economic ties with Nigeria. Côte d'Ivoire and Ghana did not identify specific candidate countries, although Côte d'Ivoire noted limited engagement with GHS among neighbouring countries and regional institutions.

Although the responses should not be interpreted as a comprehensive regional assessment, they suggest that participating countries see value in regional approaches to GHS implementation. Existing trade relationships, geographic proximity, and opportunities for peer learning may provide a useful foundation for future replication efforts and South-South cooperation.

6. Conclusion

Through the project, participating countries completed national assessments and roadmaps, strengthened coordination arrangements, developed regulatory instruments and technical guidance, and expanded GHS training and awareness. Progress towards formal regulatory adoption and operational implementation nevertheless varied considerably. Kenya adopted amended regulatory instruments and initiated implementation activities, while Nigeria and Côte d'Ivoire advanced legislative drafting and technical capacity development. Ghana established a first legislative draft and delivered capacity-building activities, although further work remained necessary to advance its regulatory framework.

The experiences of the four participating countries demonstrate that progress is possible, but that implementation pathways are rarely linear. Kenya completed the adoption of national GHS legislation and initiated enforcement activities, while Nigeria advanced regulatory development and broad stakeholder engagement. Côte d'Ivoire strengthened its legislative and technical foundations despite a compressed implementation period, while Ghana made progress in capacity building and institutional engagement but continues to face challenges in completing key regulatory processes. At the same time, the project highlighted persistent challenges related to legislative approval processes, inter-institutional coordination, sustainable financing, enforcement readiness, and monitoring and evaluation.

A key lesson emerging from the pilot is that successful GHS implementation depends not only on technical expertise, but also on national ownership, institutional coordination, political commitment, and the availability of adequate resources. Initial assessments and national roadmaps provided an important basis for identifying country-specific priorities and determining appropriate legislative and institutional measures. The experience also highlighted the value of building on existing coordination mechanisms and undertaking capacity building and awareness raising alongside legislative development, while ensuring sufficient regulatory progress to enable the practical application of acquired knowledge.

The findings also demonstrate that future GHS implementation support should extend beyond legislative drafting and awareness raising. Countries identified the need for practical tools and guidance covering enforcement, financing, monitoring and evaluation, digital tools, and institutional implementation arrangements. Strengthening national training capacities and facilitating regional cooperation could also help countries build on existing experience, share practical lessons and accelerate implementation in neighbouring countries. These findings provide valuable inputs for strengthening global GHS implementation and offer practical lessons for future countries seeking to strengthen chemicals management systems and advance the implementation of GHS.

While important progress has been achieved, implementation remains an ongoing process. Sustaining momentum beyond the lifetime of the pilot project will require continued national commitment, institutional strengthening, resource mobilization, and opportunities for knowledge exchange and peer learning. The experiences documented through this assessment provide a valuable foundation for supporting the next generation of GHS implementation efforts in Africa and beyond.