Project Summary Report

Capacity Building on GHS Implementation Convergence Practices

APEC Chemical Dialogue

April 2024
Project Summary Report

Capacity Building on GHS Implementation Convergence Practices

APEC Chemical Dialogue

April 2024
# Table of Contents

Executive summary ........................................................................................................... 3
Introduction ...................................................................................................................... 4
Overview of the webinars ................................................................................................. 5
   Session 1: Introduction to GHS .................................................................................. 5
      Introduction on GHS ............................................................................................... 5
      Industry perspective on GHS .................................................................................. 6
      Breakout discussion to identify benefits and challenges of GHS ......................... 6
      Interactive polls with participants ......................................................................... 7
   Session 2: Existing GHS implementation challenges in APEC economies ............... 9
      Regulator’s perspective on existing challenges ...................................................... 9
      Industry’s (SME) perspective on existing challenges ........................................... 10
      Panel discussion .................................................................................................... 11
   Session 3: GHS implementation convergence principles .......................................... 12
      Regulator’s perspective on implementation of convergence principles ............... 12
      Industry’s perspective on convergence ............................................................... 13
      Panel discussion .................................................................................................... 14
Recommendations ............................................................................................................. 16
Conclusion ....................................................................................................................... 17
Annex 1: input from breakout discussion of session 1 ............................................... 18
Annex 2: Project evaluation ............................................................................................ 19
      Evaluation survey from participants .................................................................. 19
      Webinars indicators .............................................................................................. 22
Annex 3: Webinars agenda ............................................................................................. 24
Executive summary

In 2023, the APEC Chemical Dialogue (CD) embarked on a project aimed at enhancing the understanding and implementation of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) across its member economies. This initiative, crucial for promoting safer chemical management and facilitating trade, consisted of a series of webinars designed to address the complexities and challenges of GHS implementation and convergence within the APEC region as well as looking into the causes and potential solutions.

Key Insights from the Sessions

- Introduction to GHS: The series began with an overview of the GHS framework, highlighting its main objectives of enhancing the protection of human health and the environment as well as trade facilitation. Experts shed light on the international political landscape surrounding GHS and shared economies’ experiences in implementing GHS within the context of regional and global trade.

- Challenges in Harmonizing GHS Implementation: Discussions revealed the challenges faced by economies in implementing or complying with GHS regulations, particularly the issues of differing GHS revisions, the need for mutual acceptance of classification and labeling, and the specific hurdles encountered by SMEs in complying with various GHS requirements across APEC economies.

- Towards Convergence: The webinars underscored the critical role of international cooperation and the exchange of best practices in moving towards GHS convergence. The ASEAN Regulatory Cooperation Platform (ARCP) was highlighted as a successful model for regional collaboration, facilitating the synchronization of GHS implementation efforts and the development of common approaches.

Recommendations for Future Actions

- Enhanced Collaboration and Capacity Building: Continued engagement and capacity-building efforts are essential to address the disparities in GHS implementation. This includes the development of shared resources, such as guidance documents and training materials, to support economies in adopting mutual acceptance principles.

- Policy and Regulatory Recommendations: The project advocates for the revision of the convergence proposal to reflect the latest insights from APEC economies. It also calls for a comparative analysis of different GHS versions and an impact assessment to guide future regulatory developments around GHS.

- Engagement with International Bodies: The APEC CD is encouraged to facilitate dialogue with international entities like the UNSCEGHS to address common implementation challenges and promote global harmonization efforts.

Conclusion

The project achieved its initial objectives in deepening the understanding of GHS among APEC economies, identifying key challenges, and laying down a roadmap for achieving greater convergence in GHS implementation practices to facilitate trade. Moving forward, the commitment to ongoing dialogue, resource sharing, and collaborative problem-solving will be pivotal in the convergence of GHS implementation across the region, ultimately enhancing chemical safety and facilitating trade.
Introduction

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) represents a cornerstone of the Asia-Pacific Economic Cooperation (APEC) Chemical Dialogue's (CD) efforts to promote consistent GHS implementation across the APEC region. Recognizing the critical role of GHS in facilitating trade and enhancing chemical safety, the APEC CD has been proactive in addressing the key challenges and divergences in GHS implementation among member economies.

Acknowledging the diverse approaches to GHS adoption and the significant disparities in implementation practices, this project is designed to build upon the CD's longstanding engagement with GHS. By proposing a series of targeted webinars, the initiative seeks to convene regulators and industry stakeholders, fostering dialogue and sharing insights on GHS implementation convergence.

The project aims to highlight further the complexities faced by APEC economies due to divergent GHS implementations, including variations in adopted revisions, building blocks, and communication requirements. These discrepancies not only complicate compliance efforts for businesses, particularly small and medium-sized enterprises (SMEs), but also pose substantial barriers to trade, counteracting one of GHS's primary objectives. Through collaborative exchanges, capacity building, and the development of supporting resources, this project aims to bridge the gaps in understanding and application of GHS among APEC economies.

This introductory overview sets the stage for a comprehensive examination of the project's objectives, methodologies, and anticipated outcomes, with a focus on enhancing GHS convergence to support trade facilitation and chemical safety across the APEC economies.
Overview of the webinars

Session 1: Introduction to GHS

Objectives of the session
Promote understanding of the necessity of GHS by highlighting the objectives of GHS as well as the benefits and shortcomings of GHS.

Introduction on GHS
Oliver Wootton, representing the United Nations Institute for Training and Research (UNITAR), provided an overview of the international political landscape surrounding the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as well as its origins and fundamental principles. Mr. Wootton continued with insights into the GHS framework, emphasizing its pivotal role in the intrinsic hazard identification of chemicals across all sectors: health, labor, agriculture, environment, transport, trade and more. Despite its recognition as the preeminent global standard for hazard identification and communication and its relevance in a wide range of political commitment or agreement around the world, Mr. Wootton highlighted that, "as of 2018, more than 120 economies had not implemented the GHS".

Within the framework of the Global Framework for Chemicals, recently endorsed in Germany during the 5th session of the International Conference on Chemical Management (ICCM 5), a new objective (Target B6) has been established: by 2030, "all economies have implemented the GHS in all relevant sectors".

Mr. Wootton then reminded the critical role of GHS in facilitating safe use of chemicals through hazard identification and hazard communication practices in the various sectors where hazardous chemicals are used, including consumer, storage, and industrial uses.

Furthermore, Mr. Wootton provided insights on UNITAR’s extensive engagement in fostering GHS adoption and implementation on a broad scale, encompassing economy-wide initiatives, regional cooperation efforts, and tailored support to individual governments in formulating and executing regulatory frameworks to implement GHS. UNITAR has developed a multitude of resources and tools, several of which are accessible at no cost, including comprehensive reports and e-Learning modules designed to deepen understanding of the technical intricacies of GHS. Additionally, UNITAR stands prepared to offer consultation and further support to the Asia-Pacific Economic Cooperation (APEC) in advancing GHS adoption and implementation endeavors.
Industry perspective on GHS
During the second presentation, Rianna Goodwin from Accord Australia offered an industry-oriented perspective on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), delving deeper into the initial objectives, benefits, and shortcoming of GHS.

The primary objectives of GHS, as mentioned by Mrs. Goodwin, are as follows:

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

In the context of APEC, trade facilitation is of great relevance. Mrs. Goodwin highlighted the current challenges wherein chemical products encounter obstacles in cross-border movement, even between economies that have adopted GHS, due to the necessity to comply with differing implementations of GHS from both economies. This results in additional workloads, diverting resources from risk assessment and management endeavors, thereby fostering inefficiencies and slowing down enhancement of the protection of human health and the environment. As an example, Mrs. Goodwin reminded the audience of the importance of ensuring efficiency in moving goods across borders, as observed during COVID crisis, when supply chain can be unexpectedly disrupted.

Consequently, there is concern on the feasibility of achieving global harmonization due to the diverging GHS implementations across different economies. This underscores the urgent need for regulators in each economy to consider GHS implementation as a means to facilitate trade, acknowledging that despite efforts towards harmonization, inherent variations across economies will persist.

Breakout discussion to identify benefits and challenges of GHS
Participants were then asked to provide input on five different points regarding GHS objectives:

1. What are the main reasons for implementing GHS?
2. What are the benefits of implementing/using GHS?
3. Which elements should be considered when implementing/revising GHS?
4. Which resources/tools could/should be included as part of the GHS implementation to promote GHS initial objectives?
5. Why do economies not implement all the building blocks?

Consolidated inputs from participants can be consulted in the table in Annex 1.
Interactive polls with participants
Polls were prepared and taken live during the webinar to gather input and feedback from participants:

As trade facilitation is one of the key objectives of APEC and GHS, the first polls highlight the successful achievement of the initial objective for this first webinar, which was crucial for the discussion in the two following sessions.
The second poll is particularly important to understand APEC economies priorities. It clearly demonstrates the importance and relevance of trade facilitation through alignment with major trading partners during GHS implementation.

**Key takeaways**

- **GHS** is a harmonized system developed by the UN for the classification and the communication of chemicals’ hazards for all sectors.
  - Harmonized criteria for classification
  - Harmonized hazard communication elements (Labels and Safety Data Sheets)
- **GHS’ objectives** are:
  - To enhance the protection of human health and the environment
  - To facilitate international trade
  - To provide a recognized framework
  - To reduce the need for testing and evaluation of chemicals
- **GHS covers all hazardous chemicals.**
- **GHS, as published by the UN, is not a regulation.** Each economy can implement GHS for relevant sectors (depending on economy-wide priorities) through regulations.
- Competent authorities will decide how to apply the various elements of the GHS based on the needs of the competent authority and the target audiences.
- The harmonized elements of the GHS may be seen as a collection of building blocks from which to form a regulatory approach.
Session 2: Existing GHS implementation challenges in APEC economies

Regulator’s perspective on existing challenges
Joel Maleon, from the Environmental Management Bureau (EMB) of the Philippines, provided a detailed analysis of the challenges faced by Philippine regulators in the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). His presentation was structured into two distinct segments:

1. the first focused on the internal challenges within the Philippines: Due to chemicals being regulated by various agencies, the GHS implementation process is complex, without proper alignment in implementation timeline, disparities between industrial chemicals and consumer products, etc.

2. the second offered insights into the challenges faced by the economies within the Asia-Pacific Economic Cooperation (APEC):
   - Communication between stakeholders: industry, stakeholders, other economies. Communication and coordination between stakeholders are key challenges to ensure more convergent implementation.
   - The limited resources and capacity (financial and manpower), time constraints are often key factors for lack of harmonization and therefore possible barriers to trade.
   - The building block approach: for the Philippines harmonization for industrial chemicals and consumer chemicals is challenging due to different risk factors.
   - Confidential Business Information: the implementation of different approaches regarding CBI and the disclosure to regulatory agencies is an existing concern for both industry and regulators.
   - Inconsistencies in safety data sheets information is a growing challenge to ensure best practices and consistent hazard communication.
Drawing from the Philippines’ experience, Mr. Maleon proposed several key recommendations to facilitate effective GHS implementation. These recommendations include:

- Communication and coordination between stakeholders during the implementation process of GHS.
- The adoption of a singular version of the GHS. Should this not be feasible, the development of principles or criteria for mutual acceptance should be considered.
- The adoption of a unified set of building blocks at the regional level.
- The development of criteria and indicators to assess the implementation of the GHS.
- The provision of periodic training for all stakeholders involved.
- The active engagement of customs officers and inspectors to ensure compliance and enforcement.

These recommendations aim to streamline the implementation process of the GHS, ensuring a more harmonized approach to chemical classification and labelling across the Philippines and potentially within the APEC economies.

Industry’s (SME) perspective on existing challenges

See Yuen Beh, representing Tremco Malaysia, provided a perspective from a medium-sized enterprise on the challenges encountered during the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The company has a broad product portfolio with multiple ingredients per product and handling a multitude of raw material suppliers. She highlighted the existing differences between each GHS revisions, as published by the United Nations, and stressed the added complexity from economies adopting different revisions, sets of building blocks or even cut-off/concentrations limits, creating differences even between economies who would adopt the same revision of GHS.

Her presentation then focused on practical challenges for SMEs, such as:

- Ensuring compliance when suppliers do not provide full disclosure of the composition, or information protected under confidential business information (CBI) is a resource intensive process.
- Dealing with different classifications for the same substance in different economies.
- Reflecting each difference from GHS implementation economies in the Safety Data Sheets and labels (format, language differences, disclosure rules, etc.).

The key conclusions drawn from Mrs. Beh’s presentation underscored the constraints of limited financial and expertise resources that medium and smaller-sized companies encounter. These challenges are further amplified by the necessity to navigate through the different GHS requirements across the Asia-Pacific Economic Cooperation (APEC) member economies, coupled with the intricacies involved in managing a wide spectrum of chemical ingredients. The task of complying with all these requirements is significant, highlighting the critical need for tailored support and guidance for medium and smaller enterprises embarking on GHS implementation.
Panel discussion
The discussion that followed the presentations focused on identifying obstacles and causes for existing divergence in GHS implementation in APEC economies. Speakers specifically addressed the following questions:

1. Do you see the frequency of GHS revisions at UN level and the addition of new hazard classes as an issue? Why?
2. What are the key obstacles when implementing or revising GHS?
3. What are the most frequent issues for industry when trying to comply with GHS in APEC?
4. APEC CD has been documenting GHS implementation divergence and misalignment among APEC economies, according to you, what are the main reasons for these differences?
5. What are the main SDS inconsistencies/challenges you have experienced? What are the reasons for such inconsistencies?

Key takeaways
• Among the key GHS implementation challenges, speakers and participants identified the following:
  o Implementation process is long
  o Communication with stakeholders
  o SDS inconsistencies
  o Source of information
  o Numerous gaps and difference in building blocks or requirements
• Looking at potential causes that need to be addressed, speakers suggested the following:
  o High flexibility of GHS as published by the UN
  o Too frequent revision of GHS
  o Diverging priorities from different economies or different agencies within the same economy
  o Lack of coordination between economies
Session 3: GHS implementation convergence principles

Objectives of the session

- Discuss potential solutions to existing challenges and promote convergence.
- Suggest possible actions from APEC CD to address known issues.
- Identify need for resources to facilitate adoption of convergence principles.

Regulator’s perspective on implementation of convergence principles
Dr. Peter Dawson from the Environmental Protection Authority (EPA) of New Zealand delivered an in-depth overview of New Zealand’s journey in adopting the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), recently updating to revision 7 and taking into consideration convergence principles as outlined by the APEC Chemical Dialogue. Given New Zealand’s relatively small scale, modest population size, and limited chemical industry, it was imperative for the economy to extend its view and consider the GHS implementation strategies of its trading partners. Engagement and outreach with international fora such as the APEC Chemical Dialogue (CD) and the ASEAN Regulatory Cooperation Platform (ARCP) played a crucial role in New Zealand's GHS implementation process.

The presentation then highlighted that, unlike various economies where different agencies regulate different sectors for chemicals, New Zealand’s unique context resulted in a single piece of legislation, covering all sectors. Dr. Dawson mentioned trade facilitation, consistency in classification, labels and SDS as well as cost efficiency for importers and manufacturers, as key factors for choosing to implement GHS revision 7 in New Zealand. This decision to factor in trade facilitation, is also emphasized by the economy’s alternative compliance provisions, enabling New Zealand to accept labels and SDS from specific trading partners although they adopted different revisions.

The key points from Dr. Dawson's presentation highlighted the following conclusions:

- The importance of promoting international alignment for classification, labeling, and Safety Data Sheets (SDS).
- The benefits of leveraging international data for various purposes, including new applications and SDS authoring.
- The continuation of New Zealand's specific requirements for terrestrial ecotoxicity for agrichemicals.
- The adoption of EPA Notices as the regulatory instrument for GHS implementation.
- The strategy of ensuring that New Zealand's approach to GHS implementation is in harmony with its trade and regional partners.

These insights underscore the importance of international cooperation and alignment in the effective implementation of GHS, particularly for economies with smaller economies and chemical industries.
Industry’s perspective on convergence
Agnes Lau from BASF Malaysia offered an industry viewpoint on the convergence of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) implementation within the Asia-Pacific Economic Cooperation (APEC) region. She mentioned the divergence across APEC member economies and the challenges that industries encounter in complying with the diverse GHS regulatory frameworks. Mrs. Lau detailed the collaborative efforts among industry players, governmental bodies, and academic institutions towards achieving GHS convergence via the ASEAN Regulatory Cooperation Platform (ARCP), an initiative launched in 2015 aimed at addressing regulatory compliance convergence issues within the ASEAN region, with GHS implementation being one of its focal areas.

Mrs. Lau presented the GHS related resources developed under the ARCP. The ASEAN-7 guidance document was developed to facilitate common approaches and synchronize GHS implementation by ASEAN economies and to develop a mechanism to facilitate and maintain alignment as GHS is updated or new requirements are in place. This document provides, for example, recommendations and best practices on:

- Building blocks to implement;
- Sector prioritization;
- Transition period;
- SDS and labels;
- CBI protection;
- Etc.

It also reflects mutual acceptance principles, aligned with APEC CD recommendations, and a checklist on GHS update or new implementation.

The essential takeaways from Mrs. Lau’s presentation include:

- GHS implementation and convergence is recommended to promote sound chemical management system and facilitate trade across region.
- Joint effort and continuous engagement between government and industry to promote mutual understanding and move toward GHS convergence.
- Capacity building and best practice sharing are important initiatives to build competency and promote mutual understanding among government and industry.
- GHS Mutual Acceptance Principles is one key element in navigating different GHS Revisions among economies while minimizing trade barriers.
Panel discussion
The panel discussion and live polls then focused on identifying solutions, needs for resources to better understanding where the focus should be to further support alignment and convergence among APEC member economies. Specifically, the following points were addressed:

1. Lengthy implementation process vs. frequent revisions

Considering the time needed to implement or revise GHS, what could be, according to you, a good solution to the current situation?

![Bar chart showing percentage responses to the question about a good solution to the current situation.]

- Less frequent revisions from the UN
- More resources, structured process to implement or revise GHS
- More focus and discussion on GHS implementation at the UNSCEGHS

2. Communication with stakeholders and lack of coordination

How could the APEC CD contribute to enhance coordination between agencies in a single economy, between economies or globally?

![Bar chart showing percentage responses to the question about how the APEC CD can contribute to enhance coordination.]

- More capacity building
- More endorsed resources on best practices for GHS implementation, training materials, etc.
- More communication and materials on APEC economies implementation of GHS
3. Differences in building blocks/gaps due to high flexibility of GHS

What do you think are the limitations of mutual acceptance?

What resources would be helpful to facilitate adoption of these principles?

**Key takeaways**

- There seems to be a strong demand for more discussion on practical implementation challenges at the UNSCEGHS.
  - Action: The APEC GHS VWG will focus on potential engagement from the CD with the UNSCEGHS to raise these challenges.
- Participants emphasized the need for more resources, endorsed documents or guidance on GHS implementation, best practices, especially to support the understanding of mutual acceptance principles and to facilitate their adoption by APEC members’ economies.
  - Action: The GHS VWG will look into all existing resources (e.g., ASEAN 7 document from ARCP) to assess the need to develop additional documents to support implementation of mutual acceptance in APEC economies.
- Capacity building and training materials remain a priority for participating economies to overcome existing challenges on SDS inconsistencies or to support convergence principles (e.g., mutual acceptance).
Recommendations

Following the discussions and input from participants during the three webinar sessions, the following recommendations have been formulated:

1. The VWG on GHS should revise the convergence proposal to reflect latest inputs from APEC economies about convergence and submit it to the APEC CD for endorsement.
2. A comparison of the different GHS versions and an impact analysis should be developed in close cooperation with Indonesia to ensure alignment between both project outcomes.
3. The APEC CD should consider supporting outreach to the UNSCEGHS to promote further discussion around practical challenges in GHS implementation faced by APEC member economies.
4. The VWG on GHS should assess existing resources, such as the ARCP ASEAN-7 guidance document to determine the need to implement such resources at APEC. The VWG should then make recommendations to the APEC CD and best way forward.
5. The VWG on GHS should address the concerns over SDS quality, identify and submit the best practices for SDS, to the APEC CD for endorsement.
6. The APEC CD should support future initiatives and projects on GHS, especially through capacity building.
Conclusion

In the APEC Chemical Dialogue's project on GHS implementation convergence practices, the webinar series covered critical insights and fostered constructive discussions on the challenges and strategies for best practices on GHS regulations across APEC economies. These sessions, enriched by the perspectives of regulators and industry experts, have helped identify existing challenges, their causes and potential ways forward to promote convergence.

Session 1 delved into the foundational aspects of GHS, highlighting its role in enhancing the protection of human health and the environment, facilitating international trade, and reducing the need for testing and evaluation of chemicals. Oliver Wooton from UNITAR underscored the global under-implementation of GHS and emphasized the necessity of international cooperation for its broader adoption.

Session 2 addressed the practical challenges in implementing GHS across APEC economies, with the Philippines providing a regulator's perspective on the complexities of harmonizing various domestic implementations. The session highlighted the complexity of navigating and complying with differing GHS requirements and demonstrated the essential role of communication and coordination among stakeholders.

Session 3 focused on the principles of GHS convergence, where Dr. Peter Dawson from New Zealand shared insights into adopting GHS within a framework that considers both international alignment and specific economy-wide needs. The discussion highlighted the critical importance of leveraging international data, adopting mutual acceptance principles.

The identified ways forward for advancing GHS convergence include:

- Enhancing communication and coordination among APEC economies to address implementation challenges and disparities.
- Encouraging the adoption of a unified GHS version or, alternatively, developing principles for mutual acceptance among major trading partners.
- Promoting capacity building and sharing best practices to improve understanding and implementation of GHS across the region.
- Considering the development of additional resources and guidance documents to support economies in aligning their GHS implementations, particularly focusing on mutual acceptance principles and addressing specific challenges such as SDS inconsistencies.

These recommendations aim to promote a more coherent and effective approach to chemical management within the APEC region, promoting safety, environmental protection, and trade facilitation. The continued collaboration and engagement of all stakeholders are crucial to realizing these goals, showing the necessity of ongoing dialogue, capacity building, and shared efforts toward GHS convergence.
## Annex 1: input from breakout discussion of session 1

<table>
<thead>
<tr>
<th>Questions</th>
<th>Regulator’s perspective</th>
<th>Industry’s perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are the main reasons for implementing GHS?</strong></td>
<td>Communicating hazard to end users, to ensure human protection, harmonized GHS. For ease of communication of hazard and facilitate trading. Using the same concept and principles in classifying the chemicals.</td>
<td>GHS is to protect Human Health and Environment. Protecting the people and environment and worker’s protection. Facilitating international trade - similar regulations on Hazardous Substances. Same format of SDS and labelling. Same concept and principles in classifying the chemicals. Companies may not be aware about the Economy’s standards and requirements. Since GHS is mandatory, this will help to promote and get them to involved (however still have challenges). This will help to identify hazardous chemicals not on the control list as GHS is based on Hazard criteria.</td>
</tr>
<tr>
<td><strong>What are the benefits of implementing/using GHS?</strong></td>
<td>Facilitate Trading, export, import. Hazard criteria assessment available via GHS, save resources for authority. Harmonization of languages in terms of trade (with the effective implementation of GHS, this will help to reduce trade barrier and compliance cost) Frameworks for harmonized rules, reduce cost Easy compliance, reducing cost, animal testing. Encouraging safe use and transport. Promote better emergency response. If government use GHS tool to talk to the companies with same language, Established system that economies can opt when they don’t have their own system in place, harmonized system ready to be adopted.</td>
<td>Save resources for Industry, harmonized criteria, justification on-line. Enhanced human protection, environment protection. Reduce the needs for testing. Harmonization of languages in terms of trade (with the effective implementation of GHS, this will help to reduce trade barrier and compliance cost). To have better protection of workers with the right and correct Hazard Communication. Better protection of people for the use handling of hazardous chemicals at home as well. Industry able to understand the hazard of their products/stakeholders. Identify hazards of chemicals being used in factories, improve awareness and safety when handling chemicals. Reduce cost when implement GHS, no need to redo labelling, classification for economies who also adopt GHS (assuming they have the same GHS).</td>
</tr>
<tr>
<td><strong>Which elements should be considered when implementing/revising GHS?</strong></td>
<td>Which version of GHS can offer the maximum protection (human and environment), more detailed explanation/guidance for implementation of classification and labelling. Consult with agency for a version that offers better harmonization with trading partners. (Facilitate ease of trading with partners). Readiness Regulator: Same as industry on capacity building SDS, 16 sections, labels. Hazard communication. Revision, industry readiness. Lessons learned: consider revision of the regional partners/trading partners. Specially for economies newly implementing GHS</td>
<td>Sector or scope to implement GHS. According to FAO &amp; WHO, whether to implement pesticide, waste, for consideration. Resource required by industries to implement in various sector to be considered. Regulatory impact assessment. Referring to the trading partners and recommendation from ARCP, APEC, UN GHS (International Platform as benchmark). Readiness of Industry. SME should be able to understand what resources and tools they need to have. Capacity Building available. Especially concern on the GHS implementation of pesticides (FAO update and information sharing). Government should communication is important on the requirement and timeline and support. Version to implement, (issue related to the frequency of revising GHS), Building blocks, higher or lower concentration limits/cut-offs Important that one economy look at partners revision.</td>
</tr>
<tr>
<td><strong>Which resources/tools could/be included as part of the GHS implementation to promote GHS initial objectives?</strong></td>
<td>Chemical databases to look for justification of classification, single substance, mixtures for regulator and industries (single source for chemical databases). Tool for mixtures is necessary, challenging for industry to assess. understanding by the regulators is important as they are the ones setting the policy and requirement; training and briefing and guidance document will be useful.</td>
<td>Leverage SAP (ERP) system, for labelling template, save resource of effort and timing, including classification result. Simple classification tool at Asia Pacific platform will be good. Training and capacity building. Training materials available in local languages; Public consultation will help the industry to understand the regulatory requirement and if the industry is ready for the new implementation or update.</td>
</tr>
<tr>
<td><strong>Why do economies not implement all the building blocks?</strong></td>
<td>The type of product, i.e. consumer products, all acute will be implemented, if workplace until acute toxicity cat 4, depends on population like children, depend on potential end users. For diff category, skin corrosion we have 3 subcategories, depend on availability of testing data of subcategory Lack of knowledge to make the decision. Avoid additional testing requirements, all building blocks accepted. Presence of regulation in the economy for other sectors</td>
<td>Promote the implementation of all building blocks, reason behind like high cut off limit. Data availability of the alignment. Lack of knowledge to make the decision. Some people may think it is very costly to implement GHS (more testing required and more cost in setting up lab/ infrastructure). Misalignment on adoption of building blocks</td>
</tr>
</tbody>
</table>
Annex 2: Project evaluation

Evaluation survey from participants
Following the three webinars, an evaluation survey was circulated to all participants. 15 responses were submitted, and all the inputs are compiled in this annex.

Gender
- M: 47%
- F: 53%

The objectives of the webinar were clearly defined
- Strongly agree: 0%
- Agree: 40%
- Disagree: 60%

The time allotted for the webinar was sufficient
- Strongly agree: 33%
- Agree: 67%
- Disagree: 0%

The agenda items and topics covered were relevant
- Strongly agree: 0%
- Agree: 53%
- Disagree: 47%

The content was well organized and easy to follow
- Strongly agree: 0%
- Agree: 53%
- Disagree: 47%
In your view what were the project’s results/achievements?

- Obtaining Feedback on the need to better implement GHS and hearing common challenges.
- Broaden the perspective. Understanding pros & cons of any approach economies is taken
- Exercise done under ARCP in converging GHS implementation common understanding and agreement of GHS implementation issues - hopefully agreed direction for next steps.
- My understanding of the situation of APEC economies has been deepened.
- Identified gaps in GHS implementation across all economies and possible solutions to address these gaps. Identified the areas where APEC CD TWG on GHS can help.
- Identify the gaps/opportunities that currently exist to improve GHS implementation
- To know the several challenges for the GHS implementations
- I hope that stakeholders were able to get some information beneficial in the review of current GHS implementation in their respective economies
- Good overview was provided.
- Every economy can exchange information to overcome challenges and learn from each other. Also, ASEAN economies can expect a common agreement on GHS implementation to encourage trade between each economy further. raising knowledge and skill to the economy regarding the GHS
- Share the challenges and issues of GHS implementation among APEC CD members. Hopefully, this will help to build consensus on the GHS convergence proposal by the APEC CD VWG on GHS.
How relevant was this project to you and your economy?

Rate your level of knowledge of and skills in the topic prior to participating in the event:

Rate your level of knowledge of and skills in the topic after participating in the event:
Webinars indicators

Number of speakers: 6

For each webinar, we tracked each represented APEC Economy, representatives from industry and regulators. The results are compiled hereafter.

<table>
<thead>
<tr>
<th></th>
<th>Webinar 1</th>
<th>Webinar 2</th>
<th>Webinar 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants</td>
<td>21</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>Number of APEC</td>
<td>10</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>economies represented</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The number of participants increased for each webinar and a total of 13 economies participated in at least one of the three sessions.
## Annex 3: Webinars agenda

### October 16, 2023 – Session 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Content</th>
<th>Presenter/Institution</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.45 (UTC+8)</td>
<td>Welcome participants and opening remarks</td>
<td>Leendert van Dijk</td>
<td>15 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oliver Wooton</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UN Institute for Training and Research (UNITAR)</td>
<td></td>
</tr>
<tr>
<td>19.00 (UTC+8)</td>
<td>Introduction on GHS</td>
<td>Oliver Wooton</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UN Institute for Training and Research (UNITAR)</td>
<td></td>
</tr>
<tr>
<td>19.30 (UTC+8)</td>
<td>Industry perspective on GHS</td>
<td>Catherine Oh</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accord Australasia Limited</td>
<td></td>
</tr>
<tr>
<td>20.00 (UTC+8)</td>
<td>Q&amp;A</td>
<td></td>
<td>15 min</td>
</tr>
<tr>
<td>20.15 (UTC+8)</td>
<td>Interactive breakout discussion to identify benefits and challenges of GHS</td>
<td></td>
<td>45 min</td>
</tr>
<tr>
<td>21.00 (UTC+8)</td>
<td>Reporting session</td>
<td></td>
<td>30 min</td>
</tr>
</tbody>
</table>

### October 30, 2023 – Session 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Content</th>
<th>Presenter/Institution</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 (UTC+8)</td>
<td>Welcome and Recap from session 1</td>
<td>Leendert van Dijk</td>
<td>15 min</td>
</tr>
<tr>
<td>09.15 (UTC+8)</td>
<td>Regulator's perspective on existing challenges</td>
<td>Jose Joel D. Maleon</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Management Bureau (Philippines)</td>
<td></td>
</tr>
<tr>
<td>09.45 (UTC+8)</td>
<td>Industry's (SME) perspective on existing challenges</td>
<td>See Yuen Beh</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Head regulatory compliance Tremco</td>
<td></td>
</tr>
<tr>
<td>10.15 (UTC+8)</td>
<td>Q&amp;A</td>
<td></td>
<td>15 min</td>
</tr>
<tr>
<td>10.30 (UTC+8)</td>
<td>Interactive discussion</td>
<td>Speakers</td>
<td>50 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leendert van Dijk</td>
<td></td>
</tr>
<tr>
<td>11.20 (UTC+8)</td>
<td>Conclusions of session 2</td>
<td>Leendert van Dijk</td>
<td>10 min</td>
</tr>
</tbody>
</table>

### November 14, 2023 – Session 3

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Content</th>
<th>Presenter/Institution</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 (UTC+8)</td>
<td>Welcome and Recap from session 2</td>
<td>Leendert van Dijk</td>
<td>15 min</td>
</tr>
<tr>
<td>09.15 (UTC+8)</td>
<td>Regulator's perspective on benefits and practical implementation of convergence principles</td>
<td>Dr. Peter Dawson</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Protection Authority (New Zealand)</td>
<td></td>
</tr>
<tr>
<td>09.45 (UTC+8)</td>
<td>Industry's perspective on convergence</td>
<td>Agnes LAU</td>
<td>30 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Director Product Safety Asia Pacific BASF</td>
<td></td>
</tr>
<tr>
<td>10.15 (UTC+8)</td>
<td>Q&amp;A</td>
<td></td>
<td>15 min</td>
</tr>
<tr>
<td>10.30 (UTC+8)</td>
<td>Interactive discussion with speakers on benefits and limitations of convergence principles</td>
<td>Speakers</td>
<td>45 min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leendert van Dijk</td>
<td></td>
</tr>
<tr>
<td>11.15 (UTC+8)</td>
<td>Conclusions of session 3</td>
<td>Leendert van Dijk</td>
<td>10 min</td>
</tr>
<tr>
<td>11.25 (UTC+8)</td>
<td>Survey</td>
<td>All</td>
<td>10 min</td>
</tr>
</tbody>
</table>