Third meeting of the intersessional process considering the Strategic Approach and sound management of chemicals and waste beyond 2020
Bangkok, Thailand, 1-4 October 2019

Items 3(b)iv and 4 (a) of the provisional agenda

3(b)iv: Reflections on and outcomes of the OEWG3: United Kingdom to present results from the technical expert workshop on indicators.
4(a): Development of recommendations for consideration by the fifth session of the Conference regarding the Strategic Approach and the sound management of chemicals and waste beyond 2020: Targets, milestones and indicators.

Report from the technical expert workshop on indicators for the Strategic Approach Beyond 2020

Note by the secretariat

1. The secretariat has the honour to submit to the intersessional process a report on the technical expert workshop on indicators for the Strategic Approach Beyond 2020 as received from the Government of the United Kingdom, as presented in the annex.

2. Over 40 experts from different regions, sectors and disciplines attended the technical expert workshop hosted by the Government of the United Kingdom in Cambridge, from 3 to 5 September 2019. Participants may wish to review the report and consider its results in the discussions under the relevant agenda items.

3. The report is presented in the annex as received and has not been edited by the secretariat.
Annex

Report from the technical expert workshop on indicators for the SAICM Strategic Approach Beyond 2020

WYNG Gardens, Cambridge, 3-5 September 2019

This report was prepared by UNEP-WCMC for the third meeting of the intersessional process for considering SAICM and the sound management of chemicals and waste Beyond 2020. Please note that this report contains the views of the independent technical experts who attended the workshop. It does not necessarily represent the views of the hosts.
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ANNEX 1: List of indicators as identified at the workshop ............................51
1. Key messages

Overall Message: *The targets and indicators for the Beyond 2020 process should continue to be developed in parallel to ensure their mutual effectiveness.*

i. The process of developing targets and indicators is a great opportunity to build momentum for the Beyond 2020 framework

Indicators can also be communication tools and should together clearly convey the purpose and scope of the Beyond 2020 framework.

- **Keep it simple, SMART**\(^2\) and focussed: workshop participants suggested prioritising the indicators and limiting their number to ensure a concise and effective suite of indicators.
- Identifying **a few high-level indicators would help to communicate** with the public and decision-makers, using targeted approaches for different audiences.
- It is important to create a **process for stakeholders to contribute** to and have ownership of the targets and indicators as they are developed, particularly for technical experts who can help to ensure that targets are measurable.

ii. The targets are not easily measurable as they are currently drafted

The targets should contain unambiguous terms, a clear structure and clarity of purpose in order to be measurable.

- Not all draft Beyond 2020 targets are yet as SMART as they could be; workshop participants suggested they be developed and agreed in conjunction with the indicators. Considering the different components of each target may be useful in this process.
- It will be important for the **draft targets to be further updated** to fill observed gaps and eliminate duplications.
- It is difficult to measure progress towards the impact of a target if the intended impact is unclear.
- The majority of the draft targets are currently process-focussed. Many of the workshop participants agreed that it would be helpful if some of the targets were impact-focussed so that the impact of the Strategic Objectives can be measured.
- It will be important to have an agreed understanding of the scope of ‘waste’ in the context of the Beyond 2020 framework to measure progress against waste-related targets.

iii. There is a wealth of existing data and indicators already available

The indicators for the Beyond 2020 framework should draw on relevant existing indicators, data sources and data collection methods wherever possible.

- Workshop participants discussed the existence of **synergies between the Beyond 2020 framework and other frameworks**, such as the chemicals and waste conventions, Sustainable Development Goals, the Convention on Biological Diversity and others. It would be useful to explore, identify and capitalise upon relevant indicator linkages.
- A **mapping exercise for existing global and regional data and indicators** would be helpful to identify existing information and processes that can be used. The work on further developing, focusing and prioritising targets and indicators would build on the results of such a mapping

\(^2\) Specific, Measurable, Achievable, Relevant and Time-based
exercise, making mapping an essential step for well-informed advancement. It would also help to identify where changes or small additions can improve the usefulness of existing data protocols, for example by including additional questions in an existing survey.

- Data availability will always be an issue but there is potential for innovation using new and emerging technologies and data sources, for example big data, satellite imagery and citizen science.
- There are a number of existing mechanisms to collect industry data. These mechanisms can be helpful for data availability and target measurability in the Beyond 2020 framework.

iv. The **structure of the suite of indicators** is an important factor in maximising their effectiveness

The ongoing process to develop indicators should consider the different levels at which indicators can be set and how they would be used by different stakeholders.

- The differing circumstances and priorities of different stakeholders should be reflected in the suite of indicators prioritised. One option is to use a layered approach, with a minimum required set of indicators to be used by all and additional ones that could be optional. This would help the core set of indicators to stay simple, limited in number and focussed.

- **Indicators on the Beyond 2020 framework** itself would be useful. Institutional indicators, for example on reporting, would allow assessment of the structure in place to enable the Beyond 2020 framework.

- The links between different Strategic Objectives and therefore targets should be made explicit. Different targets may be tracked by the same indicators or data flows, allowing one indicator to be used multiple times. Similarly, different targets may share the same impacts (and thus benefit from the same impact indicators) but be achieved in different ways.

- **Custodians could be assigned to indicators** or groups of indicators to ensure the consistency and accuracy of data collection over time.

2. Workshop objectives and method

A three-day workshop was held in Cambridge, UK, with the following objectives:

1. To **clarify the draft targets**, as detailed in the Co-Chairs paper (SAICM/OEWG.3/4)

2. To **suggest existing and potential indicators and supporting data** to measure the draft Targets, and to suggest additional target areas where relevant and measurable.

3. To **identify areas of synergy** between the beyond 2020 framework for chemicals and waste, biodiversity, climate change, health and other relevant areas, identifying potential for commonality of indicators.

The workshop focussed on the current Strategic Objectives and draft Targets as deliberated at OEWG3. Four additional targets were proposed at the OEWG, of which two were considered at this workshop (those under Strategic Objective E).

The workshop began with general introductions and a welcome from Defra, the SAICM Secretariat and UNEP-WCMC. The introduction was followed by several presentations covering the Beyond 2020 target-

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4 Open ended working group 3
setting process, the workshop objectives and other organisations’ experiences with indicators. The morning component of Day 1 included the following presentations:

- **Beyond 2020 target-setting process and context for this workshop (Brenda Koekkoek, SAICM Secretariat)**
  This presentation covered the draft objectives and targets Beyond 2020, as well as an introduction to the current SAICM reporting process.

- **Review the workshop’s objectives, process and ways of working together (Julia Sussams, Defra)**
  This was a presentation of the workshop’s objectives and how the workshop outcomes will be taken forward.

- **Useful examples: indicators experience from the Aichi Targets under the Convention on Biological Diversity and the Sustainable Development Goals (UNEP-WCMC)**
  This presentation covered the identification of indicators for the Biodiversity Indicators Partnership and lessons learned from indicators for the Strategic Plan for Biodiversity 2011-2020, and how these lessons might inform the development of indicators for Beyond 2020.

- **Useful examples: indicators experience from the World Health Organisation**
  This was a presentation of the WHO’s indicators experience and challenges, as well as how they may link in moving forward, including on International Health Regulations and Reporting on SDG 3.

- **Guidance on developing ‘good’ indicators (Sarah Ivory, UNEP-WCMC)**
  This was an introductory presentation to ensure all participants have a common understanding of the terms used and the process of developing indicators.

**Exercise 1** took place in the afternoon of Day 1. In this exercise, breakout groups aimed to understand the draft targets better by breaking each one down into its components and identifying the responsible entity, activity, outputs and outcomes/impacts. Breaking down the targets allowed participants to consider what the key aspects of the target were that needed to be measured.

**Day 2**

Presentations on Day 2 included the following:

- **Reflections and perspectives (Andrea Rother, University of Cape Town)**
  This presentation covered reflections on indicator data for different types of chemicals and chemical groups.

- **Examples of environmental Conventions’ reporting processes**
  This presentation introduced the aims and features of reporting processes from other Conventions.

**Exercise 2** took place in the morning of Day 2. The purpose of the exercise was to identify possible indicators for each target and to consider the extent to which existing indicators and data sources could be used. This exercise resulted in list of indicators which corresponded to the target wording (see Annex 1).

In **Exercise 3**, participants assessed the achievability of each indicator in different sectoral groups, which included consideration of data gaps, data quality, variability of data globally and existing data collection methods. Limited time meant that some of these issues were not fully discussed.
Day 3

The following presentation was held on Day 3:

- **Reflections and perspectives (Servet Gören, ICCA and Tadesse Amera Sahlul, IPEN)**
  This presentation covered the contributions of industry and non-Governmental organisations to the sound management of chemicals and waste, how non-state actors can more effectively contribute to reporting processes overall and how we can build synergy to better track overall progress in line with the SDGs\(^6\).

In **Exercise 4** participants discussed how impact could be measured for the targets and for the Strategic Objectives.

Reflecting on the long list of indicators, consolidated after Day 2, participants next considered the key messages regarding specific targets, Strategic Objectives and more broadly for the Beyond 2020 Framework. A plenary discussion then identified a number of criteria for ‘good’ indicators in the context of the Beyond 2020 Framework.

Finally, a session on **Synergies with other processes** considered the potential for synergies between the Beyond 2020 Framework and other processes, frameworks and conventions. Following from this presentation, participants divided into breakout groups to discuss and identify potential synergies by individual target.

The final sessions focussed on the key messages and workshop conclusions, in plenary, before participants had the opportunity to comment on the proposed structure for the present document, and then the next steps for this work.

The present Information Document following does not follow the structure of the workshop agenda. Instead, it consolidates the results and outputs into a format which will be most directly useful during the intersessional meeting. Therefore, it has the following structure:

- **Suggestions to make the targets more measurable**
  - This section describes the workshop discussions relating to each target. It covers the breakdown of each target and the results of the subsequent discussions on the potential indicators to measure each target.

- **Suggestions for prioritising indicators for the Beyond 2020 framework**
  - This section details the results of a plenary session during which workshop participants discussed the criteria that could be used to prioritise a long list of indicators in the context of the Beyond 2020 framework.

- **Synergies with other conventions, frameworks and processes**
  - This section discusses opportunities to both capitalise on and support the other conventions, frameworks and processes already in place that have their own indicator and reporting processes, as well as data collection efforts.

- **Suggested next steps**
  - This section presents the actions to be taken following from the workshop. They include the plans for the Third Meeting of the Intersessional Process (IP3) in Bangkok, how workshop participants can take the results of the workshop forward, the need for a mapping exercise of existing data and indicators and further work suggested.

\(^6\) Sustainable Development Goals
Figure 1: Flow of workshop exercise into outputs and discussion.

**Exercise 1** – Breaking the targets down into their component parts: responsible agency, activities, outputs & outcomes/impacts

**Exercise 2** – Identifying ‘ideal’ indicator(s) for each target, alongside existing indicators and data sources.

**Exercise 3** – Assessing the achievability of each indicator, the barriers and limitations.

**Exercise 4** – Discussion of how impact could be measured

**Output** – Initial list of possible indicators

**Discussion** – Criteria for good indicators for the Beyond 2020 framework

**Discussion** – Key messages for IP3 and structure of the INF Doc.

**Output** – INF Doc

**Discussion** – Synergies with other frameworks and processes
3. Suggestions to make the targets more measurable

This section aims to reflect the workshop discussions relating to each target and how they could be made more measurable.

The section includes the breakdown of the target, as produced in the workshop, into its ‘component parts’ - identifying a responsible agency (understood as a broader term, not a government agency), the activity, outputs and the intended outcome/impact. Not all targets had all of these component parts, and some only had one or two of them, though this was not necessarily an issue or a weakness of the targets. This exercise was intended to facilitate the identification of possible indicators, but also served as a useful basis for reflecting on the target’s composition. This section also includes the results from subsequent discussions on the potential indicators to measure each target, as currently drafted, and their achievability and realism. The actual list of indicators identified for each target is included in Annex 1. This list is not exhaustive and should be considered the outcome of a brainstorming exercise, rather than a refined list of suggested indicators. This section therefore details any considerations arising from these discussions, including any existing or potential indicators and data sources and links to reporting, that are relevant to the target in question.

Not all group discussions covered each of the sub-headings used in this section; the absence of a particular sub-heading does not mean that it was not relevant for this subject, but rather that the groups did not explicitly discuss it.

The Key Messages presented in Section 1 above were broadly agreed across all workshop participants. It should be noted, however, that the detailed comments and technical expertise below were not. It was not an aim of this workshop to unanimously agree all the points presented across all targets and indicators. Instead the comments below represent the diverse range of views, areas of technical expertise and professional backgrounds of the workshop participants.
Strategic objective A: [Measures are identified, implemented and enforced in order to prevent or, where not feasible, minimize harm from chemicals throughout their life cycle [and waste]]

Considerations in measuring the impact of this Strategic Objective

- A measure of success could be whether the sound management of chemicals and waste is included at the United Nations General Assembly, or in the voluntary national reports to the High-Level Political Forum, as well as the inclusion of chemicals in fora not exclusively associated with chemicals (e.g. United Nations Environment Assembly, World Health Assembly).
- Using case studies may be a useful source of information, for example, if chemicals are given a similar level of priority as plastics are currently being given, this may be an indicator of success against this Strategic Objective.
- A potential indicator could be the coverage of chemicals issues in social media.
- The extent to which chemicals issues are mainstreamed in national plans for sustainable development could be used as an indicator of success in this Strategic Objective.

Aspects that could be added to this Strategic Objective

- A target could be added in order to quantify the overarching impact of the Strategic Objective. This might draw on Sustainable Development Goal or World Health Organization indicators, for example, in the context of health, SDG 3.9.3 and WHO burden of disease data. An overall impact indicator for environment does not yet exist but an overview of those SDG indicators measuring the environmental dimension of sustainable development is available.

Other considerations for this Strategic Objective

- In order to directly influence the ability to measure the impacts of Objective A, a target could be added to Objective B to improve methodologies for measuring the impacts of (and collect data on) overarching chemicals issues, e.g. the impacts of chemical mixtures.
- Strategic Objective A was considered a foundational objective, while Strategic Objective E sets the enabling environment.
- Ideally, targets should build on one another in order to deliver the objective under which it sits.

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7 https://www.unenvironment.org/resources/report/measuring-progress-towards-achieving-environmental-dimension-sdgs
Target A1: Countries adopt, implement and enforce legal frameworks that address risk prevention and the reduction of adverse impacts from chemicals throughout their life cycle and waste.

Breakdown of the target

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Adopt</td>
<td>Legal framework</td>
<td>Risk prevention is addressed</td>
</tr>
<tr>
<td></td>
<td>Implement</td>
<td></td>
<td>Adverse impacts from chemicals throughout their lifecycle and waste are reduced</td>
</tr>
<tr>
<td></td>
<td>Enforce</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target

- What does ‘addressed’ mean in the context of risk prevention?
- What is meant by ‘the lifecycle’?
- This target aims to reduce adverse impacts on whom?
- To ‘implement’ was taken to mean various different things, including transcribing the requirement into national law across to seeing evidence of action from stakeholders. This may need defining more fully.

Other considerations for the target

- It may be helpful to provide criteria for the minimum aspects required to be included in a legal framework to ensure effectiveness. This might be considered an ‘enabling condition’. The PAN Code of Conduct and the ILO\(^8\) Code of Practice may be helpful in providing this detail (the latter may need updating).

Measuring the impact of this target

Determining the impact of this target is difficult, and no specific impact indicators were suggested. One suggestion was to measure the strength or the capacity of legal frameworks in some way.

Where could data come from?

- Where countries report the number of legal frameworks adopted or implemented, additional reporting could allow specification (through drop down menu?) of:
  - which national and international legal frameworks are adopted;
  - which implementing agencies are responsible for implementation; and
  - which risks are assessed by the Framework.
- An accompanying qualitative report could provide more detail on the progress of specific countries
- The OECD\(^9\) has a proposed indicator on ‘the number of countries with basic legislation in place’, which could be used to measure Target A1.
- Potential synergies with OECD indicator on framework on industrial chemicals

\(^8\) International Labour Organisation
\(^9\) Organisation for Economic Co-operation and Development
• Potential synergies with FAO\textsuperscript{10} indicators on framework on pesticides
• Hazardous waste in Brazil
• ILO
• The International Health Regulations (IHR) (2005)
• Other multilateral environmental agreements (MEAs)

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap

• There is a strong link here to convention reporting already underway, which should be used where possible.
• There is also a strong link to reporting under the ILO and under other agreements, such as the GHS\textsuperscript{11}.
• For the secondary indicators suggested above, there is thought to be some overlap with indicators currently being proposed by the OECD, particularly with the Framework on industrial chemicals.
• There may be existing reported data from the FAO Framework on pesticides.
• International Health Regulations reporting on achievement of core capacities for chemicals.
• Similar indicators may exist within intergovernmental organisations (IGOs).

\textsuperscript{10} The Food and Agriculture Organisation of the United Nations
\textsuperscript{11} Globally Harmonized System of Classification and Labelling of Chemicals
**Target A2: Countries have sufficient capacity to address chemicals and waste issues nationally, including appropriate inter-agency coordination and stakeholder participation mechanisms, such as national action plans.**

**Breakdown of the target**

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Have sufficient capacity to: Address chemicals and waste issues nationally Including appropriate inter-agency coordination And stakeholder participation mechanisms</td>
<td>National action plan</td>
<td></td>
</tr>
</tbody>
</table>

**Clarifications that would improve the measurability of the target:**

- The term ‘sufficient capacity’ is difficult to measure. Capacity has been interpreted to mean any or all of the following:
  - Sufficient funding (including for research)
  - Sufficient expertise
  - Sufficient person resource
  - Sufficient infrastructure
  - Sufficient legislation
  - The existence of a responsible agency
  - Sufficient political will to act
- The term ‘sufficient’ should be defined in the context of each country, as each country would be different in terms of what it would need. This could be assessed by each country as part of their national frameworks.
- The term to ‘build’ capacity may be helpful, as it is measurable in the context of showing improvement in key ‘capacity’ parameters if a baseline state is defined. This would allow for the creation of indicators showing progress, rather than two absolute states (have or have not), as is currently the case.
- The terms ‘waste’ and ‘baseline’ should be more clearly defined.
- It should be clarified that governments are the responsible agency, and that governments are different from countries.

**Other considerations for the target:**
• National Action Plans could be used as evidence of inter-agency coordination, of ‘capacity’ and/or stakeholder participation.
• The National Action Plans and National Profiles should be up to date, and the regular assessments/questionnaires could address this aspect.
• It is noted that including an example, as in this target, may help define an indicator for the target but at the same time it might lower the quality of the target.

Where could data come from?

• SAICM indicators on inter-ministerial coordination body
• ILO tri-partite coordination body
• National profiles (IOMC\(^{12}\) and SAICM indicator)
• Basel, Rotterdam, Stockholm and Minamata (BRSM) convention indicators

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap

• The existing SAICM indicator on inter-ministerial coordination bodies
• ILO data on tri-partite coordination bodies
• The existing IOMC and SAICM indicator on national profiles
• BRS reporting processes, particularly for hazardous waste in the Basel Convention

\(^{12}\) The Inter-Organisation Programme for the Sound Management of Chemicals
Target A3: Countries are implementing the chemicals and waste-related multilateral environmental agreements, as well as health, labour and other relevant conventions, and voluntary mechanisms such as the Globally Harmonized System of Classification and Labelling of Chemicals

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity (as process)</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Implementing</td>
<td></td>
<td>Chemicals and waste-related MEAs as well as health, labour and other relevant conventions and voluntary mechanisms like GHS.</td>
</tr>
<tr>
<td></td>
<td>Enforced</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- Conventions (successfully) implemented is the output/outcome – these initiatives already exist
- Does the use of the term ‘countries’ imply governments? However this, therefore, does not include implementing stakeholders.

Measuring the impact of this target:

- If the impact of this target were to be measured it would be in the delivery of the outcomes of the MEA / agreement.

Considerations for indicators

- There was some disagreement over whether it would be beneficial to generate an overarching indicator on implementation of MEAs and other agreements, or measure the implementation of each MEA or agreement separately.
  - An overarching indicator would reduce the number of indicators in use and ideally provide an overall picture. Although it is on reporting and not implementation, an indicator to consider on this point is SDG indicator 12.4.1.
  - A suggested approach was to identify key MEAs (5?) as a proxy for the rest.
- Indicators can specify who is accountable – multiple indicators can track who implements, who feeds in, etc.

Where could data come from?

- Chemicals and waste-related MEAs, & health, labour & other relevant conventions & voluntary mechanisms, for example:
• BRS Secretariat indicators – Basel & Stockholm – on reporting and NIPs\textsuperscript{13}
• WHO – IHR\textsuperscript{14}
• UNITAR\textsuperscript{15}, E-PRTR\textsuperscript{16}
• Poison Centres (WHO)
• monitoring (WHO)
• GHS (UNECE\textsuperscript{17})
• Data on non-compliance cases, where available, may provide data for an indicator on implementation.
• It may be beneficial to set up one online location where all MEAs report to, and where overarching statistics would be available, although any additional reporting burdens within the MEAs could require decisions from Conference of the Parties.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

• Much of this data already exists in the reporting for the SDGs (indicator 12.4.1), GHS, PRTR, BRS Conventions, FAO, WHO-IHR and National Profiles under UNITAR.
• The SAICM Secretariat should have access to data on reporting levels for each MEA. Other organisations such as the ILO will have the same for the agreements that they oversee.

\textsuperscript{13} National Implementation Plans
\textsuperscript{14} International Health Regulations
\textsuperscript{15} United Nations Institute for Training and Research
\textsuperscript{16} European Pollutant Release and Transfer Register
\textsuperscript{17} United Nations Economic Commission for Europe
Target A4: Stakeholders have incorporated the sound management of chemicals throughout their life cycle and waste into their planning, policies and practices, thereby supporting the development and implementation of chemicals management systems and other sector-appropriate mechanisms

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholders</td>
<td>Incorporate sound management of chemicals and waste into</td>
<td>Planning Policies Practices</td>
<td>Development of chemicals management systems and sector-appropriate mechanisms Implementation of chemicals management systems and sector-appropriate mechanisms</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- Who are the stakeholders? Does it include governments, industry, private sector, everyone? The diversity of stakeholders throughout should be multi-sectoral and multi-stakeholder, as well as include academia and the scientific community, etc.
  - The indicators will depend on which stakeholders are included, if this is made more specific it would be easier to measure. The Objective is about responsibilities and risk prevention; responsibilities differ between stakeholders in every group or sector.
  - Stakeholders should be the whole way down the value chain. This target is therefore potentially huge in scope.

Other considerations for the target:

- If committing to action is the intended output, the action itself could be the outcome.
- Developing criteria for chemicals in procurement is relevant here; eco/green labelling have criteria for chemicals.
- Assumption: Target A1 covers the legal frameworks, therefore Target A4 covers non-legal frameworks.
- A code of conduct for chemicals management would help to identify stakeholders and help to understand and measure this and other targets.

Considerations for indicators:

- All stakeholders – indicators can be disaggregated by stakeholders – if more specific, it would be much easier to measure.

Where could data come from?

- OECD/IOMC new requirements for what sound management of chemicals and waste looks like – indicator for countries’ chemical management systems.
- Possible data source from proposed OECD indicator on chemicals management systems (more relevant to A1/A2 but may have some data)
- Stakeholder/sector-specific 3rd party evaluation against standards/codes of conduct
- Eco-labels/green labels – some require criteria to be met for chemicals.
Target A5: Governments and industry ensure that workers are protected from the risks associated with chemicals and waste and that workers have the means to protect themselves.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governments</td>
<td>Ensure that workers are protected</td>
<td>Workers protected from risks associated with chemicals</td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td>Workers protected from risks associated with waste</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workers have the means to protect themselves.</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- How are workers defined?
- Who has responsibility for worker protection: industry and workers themselves?
- The measures to be used depend on the industry. The importance of COSHH\(^{18}\) forms, categories of hazard and implementation tools should be considered. How are hazardous substances identified?
- What does ‘ensuring’ involve? It might consider setting framework and rules for government, framework for enforcement, and for industry implementation.

Other considerations for the target:

- Outputs are not defined – these could be legislation or guidelines for workers.
- How should impact for informal workers be measured?
- Part of risk prevention could involve decisions not to use certain chemicals in the workplace.
- Mechanisms are in place to address risks, awareness or risks, health and safety measures and checks. There are visual methods such as labelling to show hazard, but waste is less likely to have hazard labelling. The importance of GHS also needs to be considered.
- The liability for support after incidents, i.e. if prevention fails, could be considered.
- What would the ideal poison centre look like? There is usually a focus on food poisoning, but data on chemical safety could also be collected. The WHO has a group of coordinators for poison centres to coordinate data on both acute and chronic effects.
- Some countries do implement much of the content of ILO conventions even though they do not ratify them. It is important for indicators to reflect ratification and implementation.
- The IHR includes capacity for disease surveillance. Companies can also be required to do health surveillance, but there are issues surrounding ethics and confidentiality of health history data.
- ILO have shown that it is easier to reach the formal sector than informal sectors with regard to worker safety provisions. The ILO have implemented workshops targeting small and medium-sized enterprises (SMEs) in collaboration with vocational training centres and chemical users groups.

\(^{18}\) Control of Substances Hazardous to Health
• The importance of adopting standards based on internationally relevant technical guidelines needs to be considered.
• How should chemicals covered by health monitoring be prioritised – by hazard?
• Other components could cover training of workers, work area environment monitoring, reporting to regulators, waste permits and how industries dispose of waste, health surveillance and monitoring and workplace monitoring.

Considerations for indicators:

• Is it feasible to conduct health checks on workers to measure impacts?
• What would the ideal poison centre look like? The WHO has a network for poison centres, to coordinate data on both acute and chronic effects. Resourcing of poison centres is an issue to be considered.
• Some countries currently implement much of the content of ILO conventions even though they do not ratify them – it is important that indicators reflect ratification and implementation. Narratives around indicators could explain reasons for non-ratification.
• It is not enough for an indicator to show whether relevant legislation exists. The indicator should also clearly specify what the legislation covers and what it aims to achieve.
• Possibility for different groups to have different milestones using the same indicator.

Where could data come from?

• Industry associations and government departments could provide inspection and enforcement data.
Strategic Objective B: Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions

Considerations in measuring the impact of this Strategic Objective:

- The impact here is risk reduction, but how can informed decisions be measured? This may require more qualitative data.

Aspects that could be added to this Strategic Objective:

- A target could be added to Objective B to improve methodologies that measure the impacts of (and collect data on) overarching chemicals issues, e.g. the impacts of chemical mixtures. This directly influences the ability to measure the impacts of Objective A.

Other considerations for this Strategic Objective:

- Some of the targets can be usefully broken down into steps. For example, for Target B1, step 1 would be to have a comprehensive database available, and step 2 would be packaging the information for different audiences, e.g. public, regulators, industry. B2, step 1 would be map tools available, and step 2 would be select appropriate tools.
Target B1: Comprehensive data and information for chemicals on the market are available and accessible, including information and data on properties, health and environmental effects, uses, hazard- and risk-assessment results and risk-management measures, monitoring results and regulatory status throughout their life cycle.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecified in the target as drafted</td>
<td>Comprehensive data and information are available and accessible.</td>
<td>Information and data on properties, health effects, environmental effects, uses, hazard and risk assessments, risk management measures, monitoring results.</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- There is no responsible agency specified; the target is lacking clarification of who specifically should generate information. There are diverse sources of scientific data including academia and other stakeholders.
- There needs to be an agreement on what ‘comprehensive data and information’ and ‘available and accessible’ means.
- This target needs to be explicit on building capacity.

Other considerations for the target:

- Multiple groups are responsible for making data and information available: governments, industry etc.
- There is no specific goal outlined in the target; including one would make it measurable.
- The target’s impact depends on who is making data and information available and on who it is being made available for.
- ‘Comprehensive data’ is not simple, and data may not cover risk assessments, etc.
- This target is not something the Beyond 2020 framework can achieve by itself and should therefore work with the OECD and others.
- ‘Big data’ could be used for this target.
- Data needs to be verifiable and refined, so an indicator could measure how much refined data are available.
- Which chemical properties have data available? We have near-complete data available on some chemicals, but not all.
- It should be noted that some countries, such as India and Thailand, produce many of their own chemicals, and this may require flexibility in the indicator.
- Existing database systems (such as the eChem portal) should be made fit for purpose, including having basic ‘how to’ guidelines for developing countries who may be unfamiliar with the systems.
• This target comes under the umbrella of the ICCA’s\textsuperscript{19} Responsible Care Initiative, which may be a useful source of information.

Where could data come from?

• Some companies will have the kind of data required, but this isn’t necessarily generally accessible.
• Can manufacturers provide these data?
• Open source data may be useful here – and should be available for citizens.
• Open sources of data may only be appropriate for ‘generic’ chemicals, but will not help when it comes to patented chemicals (for example).
• Much of the data currently available is inadequate when it comes to waste – for example, a lack of toxicological data which is relevant for the disposal of certain items.
• Concern that suppliers will not want to ‘give away’ the chemical composition of their products, but some countries have measures in place for this – France has an open data source which contains all of this information and in India there is a requirement for companies that produce hazardous chemicals/waste declare the amounts they have on a monthly basis for auditing purposes.
• The use of safety data sheets for products may be a source of helpful data – these are used in the EU and there is a similar system in the US but these are not used globally, there is also no obligation to fill in safety data sheets but it could be encouraged on a voluntary basis.

\textsuperscript{19} International Council of Chemical Associations
Target B2: All stakeholders, in particular industries and regulators, have and are using the most appropriate and standardized tools, guidelines and best practices for assessments and sound management, as well as for the prevention of harm, risk reduction, monitoring and enforcement.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>All stakeholders (particularly industries and regulators)</td>
<td>Using most appropriate and standardized tools, guidelines and best practices.</td>
<td>Assessment and sound management</td>
<td>Prevention of harm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitoring</td>
<td>Risk reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enforcement</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- How can ‘most appropriate’ be measured?
- ‘Most appropriate’, ‘standardized’ and ‘monitoring’ should be defined.
- This target has a lot of text; refinement might aid clarity.

Other considerations for this target:

- We suggest that the target refers to the improvement of monitoring, not just monitoring
- There are many online tools available but how can it be measured whether they are used?
- It is objectively very difficult for all industries in every country to use the same standards. This target requires that someone (who that is should be determined) agrees to a set of standards.
- Sub-targets may be needed for this target.

Considerations for indicators

- To ‘have’ the tools as listed we should provide them, and these should be broadly available for all
- Does this target include all chemicals? And does this include future issues of concern?
- Measuring ‘use’ is a challenge – it was suggested this could be done with questionnaires

Where could data come from?

- A survey pre and post the implementation of best practises would allow for evaluation. A survey on the experience of using available tools would allow for a baseline to be set.
Target B3: Information and standardized methods are available and used to understand the impacts of chemicals and waste for improved burden-of-disease and cost-of inaction estimates, to inform the advancement of chemical safety measures and to measure progress towards reducing those impacts.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and standardized methods are available and used</td>
<td>Improved burden of disease estimates</td>
<td>Enhanced understanding of the impact of chemicals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improved cost of inaction estimates</td>
<td>Enhanced understanding of the impact of waste</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advancement of chemicals safety measurements informed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enhanced ability to measure progress towards reducing those impacts.</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- There was no responsible agency specified, although it is noted that while this is not compulsory for an indicator, it can be helpful.
- Should chemicals and waste be separated or considered together?
- Are impacts implicit in the target?

Other considerations for this target:

- There are gaps in training and understanding the importance of analysing data to be meaningful for decision-making.
- There is the need for capacity building in clinical toxicology.

Considerations for indicators:

- How do we capture the methodologies that are being used for measuring impact for this target?
- There needs to be standardisation on a global level, to ensure all countries are using the same method and that data are comparable.
- There is a need to establish who will be using the methods.
- There are three layers to this target – international, regional and national.
- Exposure/accidents at work should be considered.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- There are also possible synergies with WHO reporting on chemical risk assessments and poison centres
Target B4: Educational, training and public awareness programmes on chemical safety and sustainability have been developed and implemented, including for vulnerable populations, along with worker safety curricula and programmes at all levels.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Developed</td>
<td>Educational and training programmes on chemical safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implemented</td>
<td>Public awareness programmes on (chemical) sustainability</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker safety programmes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker safety curricula</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- This target would benefit from several additions, such as a responsible agency and expected outcomes/impacts.
- Due to the non-specific nature of this target, it would be difficult to measure progress, which might lead to nobody taking responsibility. It is important to look at who is responsible for action, how actions are taken and how to assess the quality of actions taken.

Other considerations for this target:

- Responsible agencies for this target might include the Beyond 2020 secretariat, governments (e.g. taking responsibility for vulnerable populations), industry (both industry and government taking responsibility for worker safety), local and state governments, and global programme organisations.
- Measurements should indicate scope and coverage.
- It was noted that chemical safety is also about the environment and that environmental considerations affect health, but more deliberate effort is sometimes needed to include the health aspect.
- It is important to monitor both programmes and outcomes, e.g. public awareness.
- Data on products sold and used, e.g. leaded paint, are also relevant.

Measuring the impact of this target:

- There were suggestions for groups that could be impacted, including the public (as users of chemical products, e.g. rat poison, pesticides) and health professionals who might need to be trained to identify symptoms of poisoning.
- The distinction was made between physiologically vulnerable groups such as children and pregnant women and socially vulnerable groups such as children and migrant workers. Outcomes could include avoidable accidents.
Considerations for indicators

- The indicators would need an aim and a target audience.
- A suggested next step was that sectors should develop specific indicators for themselves.
- Focused indicators could look at medical schools, education, GHS, vulnerable populations, governments, NGOs and universities – as a drop down menu of categories. Courses on sustainable chemistry. Offering courses on sustainable chemistry might be particularly beneficial.
- The objective implied outcomes of informed decisions and actions, and that it was important to consider this intent and spirit in considering what the indicators should be.

Where could data come from?

- Associations like Croplife and Together for Sustainability could make data available for companies.
- Unions might have data on capacity for worker safety.
Target B5: Countries and stakeholders are implementing training on environmentally sound and safer alternatives, as well as on substitutions and the use of safer alternatives, such as agroecology.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>Implementing</td>
<td>Training on environmentally sound and safer alternatives as well as on substitutions</td>
<td></td>
</tr>
<tr>
<td>Stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- The term ‘stakeholders’ is difficult to define and measure, which makes it difficult for countries to develop actions for the target or to define progress indicators. Can this be better defined?
- The target wording lacks an outcome or impact definition. These are defined in the Strategic Objective and considerations. We therefore consider that the target wording is not sufficient for the target to be understood in isolation. We suggest that the wording include the ‘sound management of chemicals and waste’ to provide clarity.
- ‘Implementing training’ is difficult to define and measure, as it is an activity. It would be more measurable to define an outcome from training, such as ‘knowledge and skills on sound management of chemicals and waste’, or specific groups of stakeholders that need this knowledge and skills.
- The target is for ‘countries’ and there are other targets for ‘governments’. To implement and measure these targets it is confusing as to whether these are the same or different actors. The targets should use one term consistently, or at least have clear definitions of the terms.
- The inclusion of agroecology as an example in the target wording was considered by some to be unhelpful, because there are many fields that could provide safer alternatives.

Other considerations for this target:

- MOOCs (Massive online open courses) and webinars may be useful for conducting the training.
- Feedback pointed to a missing outcome. Instead, participants pointed out that, per the strategic objective, the outcome would be informed decisions and actions.

Interlinkages between the targets:

- Target B5 overlaps with Target B4 and could be seen as a means to achieve B4. They could potentially be combined.
Considerations for indicators:

- Programmes should be defined.

Where could data come from?

- IPEN\textsuperscript{20} data on trainings/programmes
- Statistics on national education programmes.
- Online Atlas on Trainings and Capacity Building Programmes (could be used a monitoring tool).

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- SAICM Indicator 7, Strategies for communicating information.
- SAICM Indicator 9, Countries with Websites.
- FAO data on trainings on agroecology
- SDG 2.4.1 Area under sustainable agriculture.
- IPEN data on trainings/programmes

\textsuperscript{20} International POPs (Persistent Organic Pollutant) Elimination Network
Strategic objective C: Issues of concern [that warrant [global] [and] [joint] action] are identified, prioritized and addressed

Considerations in measuring the impact of this Strategic Objective:

- A measure of success may be that issues of concern are identified and addressed. The number of issues that have been resolved would be a way of quantifying this impact.

Aspects that could be added to this Strategic Objective:

- It is noted that there is a lack of consistency between the targets under this Strategic Objective. Target C1 is high level, while Target C2 is specific.
- A target could be included around the time lag between identifying emerging issues and a political reaction. This would require a process in place for the adoption of issues of concerns with timelines.

Other considerations for this Strategic Objective:

- Should there be a process for prioritising issues of concern?
- Do we need an early warning system for emerging issues? Existing emerging issues can provide the basis for considering and identifying future emerging issues.
- What is meant by ‘programmes or work’ is unclear in target C1. Calling it a work plan might be clearer.
- We should think about how this applies to groups of chemicals (as opposed to chemicals individually).
- An assessment of how much money is being put towards issues of concern may reflect the current emerging policy process of today, such as lead in paint, pesticides, nanotechnologies?
- It would be useful to develop a space, e.g. on the web, for stakeholders to come together to identify areas of concern on a global level.
**Target C1: Programmes of work including timelines are established, adopted and implemented for identified issues of concern.**

**Breakdown of the target:**

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Established</td>
<td>Programme of work including timelines for the identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adopted</td>
<td>issues of concern</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implemented</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Clarifications that would improve the measurability of the target:**

- The target as it stands does not currently capture what actions should be taken on the issues of concern and how to address them.

**Other considerations for this target:**

- This target is based on the presumption that issues of concern (emerging policy issues) have been identified. There were some concerns that there was a lack of rigour around what was identified as an Emerging Policy Issue and it was noted that this will require an additional process, possibly coordinated through the Beyond 2020 secretariat.
- The target would benefit from a responsible agency and outcomes/impacts in order to make it SMART.
- The target would benefit from clarifying what kinds of programmes are being considered and which agencies would deliver them. Outcomes are needed for measurement of progress.

**Considerations for indicators:**

- Each identified issue likely to need a separate indicator. What it is will depend on level of development, e.g. lead in paint has targets for elimination; endocrine disruptors and nano-technology have resolutions asking for more sharing of information and awareness-raising.

**Where could data come from?**

- Data is collected from stakeholder surveys about what actions have been taken.
- Does the OECD have data and indicators for nano-technology?
- Chemicals in products (CIP) is an emerging issue. Information is collected through supply chains and the CIP stamp shows that countries or stakeholders have undertaken the CIP programme.
Target C2: Information on the properties and risk management of chemicals across the supply chain and the chemical contents of products is available to all to enable informed decisions.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Information:</td>
<td>Is available to all to enable informed decisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) on the properties of chemicals across the supply chain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) on the risk management of chemicals across the supply chain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) and on the chemical contents of products</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- The target would benefit from clarifying the responsible agency and the activity required. As it stands, this target is entirely output oriented.
- There is no responsible agency specified, but the target could apply to organisations such as ECHA\(^21\). Industry is also implicitly referred to as a responsible agency.
- It also needs to be more specific on what is meant by informed decisions and “all”.
- The target needs to be more specific in what it is referring to – what products? Which supply chains? What is meant by information?

Other considerations for this target:

- It needs to be taken into consideration that some countries lack the capacity to implement this target.
- How can we incentivise industry to share what is in their products? There was the suggestion of a rating system for giving a score to companies according to how well they were complying.

Considerations for indicators:

- Target C2 is a means to reflect the chemicals in products work plan
- ILO convention 170 contains specific provisions for chemicals suppliers which in theory should cover the responsibilities around supply chains in the target
- Should some kind of classification and labelling system be implemented?
- Who is responsible for consumer protection when it comes to chemicals in products? The people responsible for product regulation? Industry? What is the role of industry when it comes to this target? This needs to be considered.
- We should not be duplicating efforts around issues of concern within individual countries, and should be feeding into a more global effort on issues of concern

\(^{21}\) European Chemicals Agency
• How would a small country with no research facilities achieve this target? It was noted that some countries in Africa are still using mercury, even though it is being phased out. Though Kenya has a lot of chemicals regulations in place, they are not being enforced. This links back to the need for the context of developing countries to be considered. Is an enforcement indicator needed?
• Agreed that industry needs to ‘step up’ and share information it has, but also thought needs to be given to who is controlling and checking – governments? Laboratories?

Where could data come from?

• Data for this target should be related to IOMC’s.
• The data should also be generated by independent sources.
• Could the REACH database serve as a source of data for the indicators being developed?
• The intent of the target is to have databases.
• It is challenging to establish a database for all chemicals in products.
• The private sector needs to have a role – indicator could be the number of companies which share hazard/toxicity data. However, this may prove to be a disincentive for product testing as they may simply not test the products at all to avoid having to share the data. We therefore should increase incentives for industry, reward good behaviour.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

• What supply chains? All? Specific?
• ILO/UNITAR/Number of countries that have implemented National Action Plans on chemicals management
• Is there a difference between Target C2 and Target B1?
• Be more explicit to engage supply chain
• Trade information is also important
• Improve systems to share information.
Strategic objective D: Benefits to human health and the environment are maximized and risks are prevented or, where not feasible, minimized through safer alternatives, innovative and sustainable solutions and forward thinking

Considerations in measuring the impact of this Strategic Objective:

- The targets under Strategic Objective D are not easily measurable. Phrases such as ‘benefits are maximised’ are not defined clearly enough to be able to measure.
- Impact could potentially be measured through an enforcement system for reporting hazardous substances in products. This would require, however, an agreed classification for what is a ‘harmful product’.
- Another potential method to measure impact could be through measuring the length of a chemical’s lifecycle as an indicator of innovative design.
- Overall the Beyond 2020 framework would benefit from identifying global macro indicators that measure the sound management of chemicals and wastes, for example, the percentage of countries implementing GHS reduction of industry incidents

Other considerations for this Strategic Objective:

- The Objective reflects the ethos that the chemicals industry is growing.
- Innovation is a key component and requires collaboration.
- Can we differentiate between the parts of the supply chain?
- The enablers are 1) capacity building of big companies and industry associations; and 2) incentivising governments and investment sectors. It is suggested that targets should focus on this.
- Preventing future legacy will aid in achieving design-for-recycling, reduced risk, resource efficiency, non-chemical solution, sustainable solutions and circularity.
- It was noted that several of the targets overlap. Clearer structuring and definition of the target would remove this.
Target D1: Companies adopt corporate policies and practices that promote resource efficiency and that incorporate the development, production and use of sustainable and safer alternatives, including new technologies and non-chemical alternatives

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>Adopt</td>
<td>Corporate policy</td>
<td>Promoted resource efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corporate practices</td>
<td>Incorporated development, production and use of sustainable and safer alternatives, including new technologies and non-chemical alternatives</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- Whether resource efficiency is an outcome or an impact should be clarified.

Other considerations for this target:

- The target wording is clear and logical, with a responsible agency, actions, outputs and outcomes.
- Rating agencies such as the Dow Jones Sustainability Index, Eco Vadis and the Carbon Disclosure Project are relevant to this target.
- It was noted that SAICM does not have a mechanism to collect company data.
- Industry associations can report back on implementation of responsible care (e.g. energy use, water consumption etc.). This data could be used to measure this target.
- ‘Companies’ should include those that may develop and invest in development and production of non-chemical alternatives.

Considerations for indicators:

- The workshop developed indicators for company policies but were less clear on indicators for company practices. Indicators for company practices need clarification.

Where could data come from?

- Industry contributes to SAICM’s 20 indicators via their data collection with Responsible Care.
- It will be important to make use of existing indicator surveys, perhaps to add a specific subsection on corporate policy and practices in monitoring progress.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- Existing relevant indicators: Global Reporting Initiative 4xx; Global Compact; Responsible Care; FTSE4Good\(^{22}\); SDG Indicators under target 12.

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\(^{22}\) Financial Times Stock Exchange
Target D2: Governments implement policies that promote innovation to facilitate the recycling and re-use of products, the adoption of sustainable and safe alternatives, including new technologies and non-chemical alternatives (e.g., the prioritized licensing of reduced-risk alternatives, assessment frameworks, labelling schemes and purchasing policies).

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governments</td>
<td>Implement</td>
<td>Policies that promote innovation</td>
<td>Innovation to facilitate the recycling and reuse of products</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The adoption of sustainable and safe alternatives including new technologies and non-chemical alternatives</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- The wording of the target up to ‘safe alternatives’ is clear and logical, with a responsible agency, actions, and outputs. The text afterwards is quite wordy, making it difficult to understand and to identify the primary focus or purpose of the target. One option would be to shorten the target by removing the wording after ‘safe alternatives’.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- SAICM indicator 8; SDG indicator 12.1.1; Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies (Tier II); 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment (Tier III); 12.5.1 National recycling rate; tons of materials recycled (Tier III).
Target D3: Companies, including from the investment sector, incorporate strategies and policies to support the sound management of chemicals and waste in their investment approaches and business models and apply internationally-recognized reporting standards where relevant

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies and those from investment sector</td>
<td>Incorporate</td>
<td>Strategies and policies and reporting standards</td>
<td>The sounds management of chemicals and waste</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Investment approaches and business models</td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- It was noted that in this context that ‘the sound management of chemicals and waste’ lacks clarity and would benefit from further definition.
- This target needs common understanding on ‘applying internationally recognised reporting standards’ to ensure ownership.

Considerations for indicators:

- Lighter definitions for recommendations, e.g. the sound management of chemicals and waste (SMCW), would make it easier to achieve the indicators. This needs further clarification.
- There should be incentives to report on the indicators.

Where could data come from?

- A key data collection method is via corporate reports. These reports may be Corporate Social Responsibility reporting, or reports such as investment in environmental projects and pollution control reports.
- The point was raised of whether sound chemicals and waste management-related patents might be used as an indicator for investment and business approaches.
- There was also the question of whether academics, start-ups and businesses could be used to collect data.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- GRI
- WBCSD\(^\text{23}\)

\(^{23}\) World Business Council for Sustainable Development
Target D4: Companies apply sustainable production principles and life-cycle management in the design of chemicals, materials and products, taking reduced-risk, design-for-recycling and non-chemical solutions and processes into account.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>Apply sustainable production principles</td>
<td>Sustainable production principles and lifecycle management in the design of chemicals, materials and products</td>
<td>Taking reduced risk, design for recycling and non-chemical solutions into account</td>
</tr>
<tr>
<td></td>
<td>Apply lifecycle management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- The target would benefit from further clarification of the different models of designing products
- To what extent will this target include the waste sector?

Other considerations for this target:

- The target might benefit from the addition of the term ‘innovation’ and speak to the ‘room to improve’.
- It would be useful to add ‘improved’ design to the target terminology
- This target should speak to industries and industry associations
- Risk reduction process management needs to be considered
- Attention needs to be given to the differences between chemicals and packaging materials

Measuring the impact of this target:

- Impact is reflected in the objective but not in the target. The target would benefit from impact being explicitly included. Alternatively, the Framework could include impact indicators under each objective that speak to multiple targets.
- Impact could be measured through whether safer chemicals by design can be demonstrated, or not.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- SDG 12.5.1
Target D5: Industry associations promote change towards sustainability and the safe management of waste and of chemicals and consumer products throughout their life cycles, including in sharing information and building the capacity of small and medium-size enterprises to reduce risks

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry associations</td>
<td>Promote change</td>
<td>Information shared and capacity built of SMEs</td>
<td>Towards sustainability and the safe management of chemicals and consumer products throughout their lifecycles</td>
</tr>
<tr>
<td></td>
<td>Sharing information</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building capacity</td>
<td></td>
<td>To reduce risks</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- This target is lacking in ways to specifically measure it.
- ‘Change’ would benefit from being further defined.
- Is ‘promote change’ something specific enough to be part of a SMART target?

Other considerations for this target:

- The target would benefit from considering whether NGOs have a role, and the role of Small and Medium-sized Enterprises.
- It will be important to consider how to better involve SMEs, i.e. potentially beyond global, regional and even national industry associations. Industry can make its best efforts, but can it reach all manufacturers without the help of government?

Measuring the impact of this target:

- Most of the indicators’ impact can be summarized by saying that achieving the target/indicators supports the sound management of chemicals and waste.

Links to existing reporting that should be explored further to increase synergies and reduce risk of overlap:

- CEFIC(24) (Responsible Care, Self-assessment tool)
- ICCA (R.C.)
- Key performance indicators

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24 The European Chemical Industry Council
Strategic objective E: [The importance of the sound management of chemicals and waste as an essential element to achieving sustainable development is recognized by all; [adequate financial and non-financial resources are [identified and] mobilized; actions are accelerated; and necessary [transparent and accountable] partnerships are established to foster cooperation among stakeholders].]

Other considerations for this Strategic Objective:

- Strategic Objective E was considered an enabling objective focused on engaging stakeholders and governments.
- The Objective is also essential to resourcing the Beyond 2020 Framework and bridging gaps between countries.
- In order to achieve that, relevant government agencies should work together when developing policies.
- It was felt that there was a need for more ‘leading’ indicators. Leading is future oriented, focusing on prevention and maximizing benefit for all companies.
- It was equally felt that there were a number of ‘lagging’ indicators. Lagging is more corrective in nature rather than prevention.
- Lead agencies in stakeholder groups should be identified in order to promote collaboration rather than working in silos.
- Indicators formulated as ‘The number of…’ are not necessarily the most useful measure. It may be more useful to use percentages, proportions etc., as these measures provide context for what is being measured.
- In meeting this Strategic Objective there is the need to ensure relevant governments work together when developing policies (i.e. health and safety, environment, chemicals and waste, education, economy, labour and customs)
Target E1: The highest levels of stakeholder organizations, including government, industry, civil society and international organizations in all relevant sectors, formally recognize the importance of and commit to action on the sound management of chemicals and waste, and recognize its relevance to sustainable development.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest level of stakeholder organisations in all relevant sectors [Governments – high level, industry CEOs, NGO directors, IGO directors]</td>
<td>Formally recognise the importance of the sound management of chemicals and waste</td>
<td>Action on the sound management of chemicals and waste</td>
<td>Highest levels of stakeholders commit to action</td>
</tr>
<tr>
<td></td>
<td>Recognize the relevance of sound management of chemicals and waste to sustainable development</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commit to action on the sound management of chemicals and waste</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other considerations for this target:

- The responsible agency was taken to mean ‘leaders’ – i.e. those who shape policies and decisions.
- Is there value in measuring commitment, which is complex, vs. measuring actual actions? What is a commitment?
- This target is lacking a mainstreaming element. It was considered essential that commitments be across different ministries.
- Recognising the relevance of the sound management of chemicals and waste for sustainable development is key to recognising its importance and therefore committing to action.

Interlinkages between the targets:

- This target links to target E4, as data on financial resources could be used to indicate levels of commitment

Where could data come from?

- Beyond 2020 questionnaire on actions that can be taken – any programmes/actions to address the sound management of chemicals and waste
Target E2: Policies and processes for the management of chemicals and waste are integrated into national and regional development strategies.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Policies for the management of chemicals and waste are integrated</td>
<td>National and regional development strategies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Processes for the management of chemicals and waste are integrated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- Does ‘regional’ refer to sub-national or international regions?
- The further definition of the terms ‘policies’, ‘processes’ and ‘development strategies’ would aid measurement by providing more clarity for countries when they respond and ensuring that the indicator is robust in what it reports.

Other considerations for this target:

- The addition of a ‘responsible agency’ as part of the target would aid measurement through identifying who would likely have responsibility for fostering change.
- In the absence of clarity on who is collecting the data, it is assumed the data could be collected nationally through a focal point. Many countries have legislation that gives the focal point the authority to request the data.
- This target makes the assumption that most countries have regional and national development strategies. This assumption was supported at the workshop.
- This target would be interpreted very differently in different countries, particularly between the developed and the developing world, due to different regional definitions.
Target E3: Inter- and intra-sectoral partnerships, networks and collaborative mechanisms are established to mobilize resources, to share information, experiences and lessons learned, and to promote coordinated action at the regional and international levels.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Establish partnerships, networks and mechanisms</td>
<td>Inter- and intra-sectoral partnerships, networks and collaborative mechanisms are established</td>
<td>Mobilise resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Share information, experiences and lessons learned</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Promote) coordinated actions at the regional and international levels</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- What do inter-sectoral and intra-sectoral mean? Across health/environment etc.?
- This target is ambiguous. Does “at regional and international levels” apply to all three parts of the target (i.e. to mobilising resources sharing info and promoting action) or just promoting coordinated action? Should ‘international’ be rephrased as ‘global’?

Other considerations for the target:

- Who will establish the partnerships, etc., and who bears responsibility?
  - Existing partnerships such as SAICM or IOMC should be mentioned.
  - Champions are required to make progress.
- Partnerships’ success will depend on the purpose – maybe each partnership has to set and evaluate progress towards their own agenda.
- Are more partnerships necessarily a good thing? There is a risk that measuring the number of partnerships would lead to increasing the number of partnerships, just to report on a target, and would lead to more dilute responsibilities and more complex oversight/management.
- This target has possible links to E1 and E4 indicators (mainstreaming and finances)

Where could data come from?

- There are lots of established partnerships already, e.g. WHO’s intra-sectoral health roadmap and FAO’s network of pesticide regulators.
- UNEP have partnerships on specific chemicals and wastes such as PCBs, mercury and marine litter
Target E4: Identify and mobilize the financial and non-financial resources needed to promote the sound management of chemicals and waste in all sectors, by and for all stakeholders.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>All stakeholders</td>
<td>Identify and mobilise non-financial resources</td>
<td>Resources mobilised</td>
<td>Promote the sound management of chemicals and waste</td>
</tr>
<tr>
<td></td>
<td>Identify and mobilise financial resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other considerations for the target:

- It was noted that this is a clear, simple and succinct target
- The value is only seen in measuring mobilised resources (how would you measure ‘identified’ resources, and what value is there if they are not then mobilised)?
- Given the importance of financial and non-financial resources to promote the sound management of chemicals and waste in all sectors, this target is a priority subject area that must be included in the Framework
- It is assumed this target refers to loans and a new financial mechanism for distributing funds.
- There are three areas of sources – government dedicated finance sources (mainstreaming), private sector (industry), and NGOs/non-state actors/IGOs
- The target needs to be disaggregateable, including disaggregating chemicals from waste.
- Non-financial resources could include webinars, workshops and guidance documents. The resources can be split broadly into three areas:
  - Human resources (capacity building training)
  - Structural resources (guidelines/manuals)
  - Technological resources (equipment)
- This non-financial support received by a country might be reported as non-financial, while the provider might report it as financial (i.e. they have funded a capacity building project). The potential for duplication should be recognised.

Considerations for indicators

- There is a risk of duplication of reporting – GEF\textsuperscript{25} might report money donated while governments might report money received.
- Only measure resources used explicitly in the aim of promoting SMCW.

Where could data come from?

- Overseas Development Assistance indicator – OECD Development Assistance Committee?
- Government budgets

\textsuperscript{25} The Global Environment Facility
Target E5: Gaps between developed and developing countries are narrowed in terms of the implementation of sound management of chemicals and waste.

Breakdown of the target:

<table>
<thead>
<tr>
<th>Responsible agency</th>
<th>Activity</th>
<th>Output</th>
<th>Outcome/impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gaps between developed and developing countries are narrowed in terms of the implementation of sound management of chemicals and waste.</td>
</tr>
</tbody>
</table>

Clarifications that would improve the measurability of the target:

- Which gaps are intended by this target? This is a huge target; clarifying by, for example, unpacking the gaps or saying ‘gaps in achieving all previous targets’ would make it more measurable.

Other considerations for the target:

- The target is phrased as an outcome and resembles an aspirational Strategic Objective rather than a target as currently phrased.
- It is an important subject that must be included.
- Need to unpack the target and have concrete measurable aspects.

Where could data come from?

- IOMC indicators
- Could disaggregate identified SAICM indicators for other targets by country
4. Suggestions for prioritising indicators for the Beyond 2020 Framework

It was recognised at the workshop that any proposed list of indicators to measure progress against the Beyond 2020 targets, including the initial list that was developed at the workshop, would need to be refined down to a smaller number of specific indicators. A plenary session discussed the criteria that could be used to prioritise a long list of indicators, in the context of the Beyond 2020 framework.

The characteristics in the list below have been grouped. Recognising that no indicator will meet all the listed criteria, when asked for the top priority characteristics participants felt that all indicators should be reliable, measurable and globally relevant. An indicator that did not meet these three minimum requirements should not be used.

1. Reliable
   - Statistically robust
   - Backed by evidence
   - Verifiable
   - Tested/ piloted - opportunity for QA & peer review
   - Limitations and assumptions clearly stated
   - Traceable back to the source

2. Standard and comparable data
   - Data available over time
   - Data collection affordable
   - Has a baseline
   - Collected using standard methodology that allows for comparability
   - Can be disaggregated by country, age and sex (where appropriate) - allows consideration of differences between developing and developed countries and vulnerable groups
   - Replicability – if two people get the same information, they should get the same result

3. Relevant
   - Globally relevant (to all countries)
   - In line with the overarching objectives and SDGs
   - Relevant to the question asked
   - Policy relevant

4. Communicable
   - Engaging message
   - Short and simple
   - Sufficiently clear to be objectively interpreted
   - Stepwise - shows more than just compliance (e.g. once compliance has been demonstrated, countries encouraged to demonstrate implementation/enforcement)

5. Efficient
   - Cost-effective
   - Draws from existing frameworks
   - Collected once, used multiple times
   - Managed at the source

6. Have clarity on who is responsible for producing the indicator

7. Includes a balance between impact and process indicators
Other considerations for indicator development:

- Multiple indicators can be combined to provide a more holistic picture of progress.
- Data collection underpinning indicator frameworks can require significant resourcing, both in terms of money and staff time.
- It will be important to narrow down to a core set of indicators, as well as to implement lessons learned from other processes, such as the 2010 Biodiversity Indicators Partnership, when doing so.
- A possible layered approach would be to produce a set of minimum indicators for all countries, with additional indicators to be used where possible and appropriate.
- A balance of input, output, outcome and impact indicators is important.
- Indicators can be ambitious but should be clearly written and understandable to avoid incorrect reporting.

5. Synergies with other conventions, frameworks and processes

With many relevant conventions and frameworks having their own indicator and reporting processes, as well as data collection efforts, good opportunities exist to both capitalise on and support those that already exist rather than starting from scratch and risking duplication of effort.

Under the Sustainable Development Goals in particular, 93 indicators speak to the environmental dimension. However, a third do not yet have agreed methodologies in place and are classified as Tier III. Others are categorised as Tier II, whereby a methodology exists but data are available for less than half of countries. These include many of the indicators relevant to the sound management of chemicals and waste.

Under the Convention on Biological Diversity Aichi Target 8 on pollution has a number of available indicators, including a disaggregation of the Red List Index for species that are affected by pollution, trends in loss of reactive nitrogen to the environment and others.

With limited resources available, identifying and capitalising on such synergies is key so that data is collected once and is used multiple times. Synergies lie primarily, but not only, in the area of impact of sound chemicals and waste management, as the aims of the Beyond 2020 Framework are to reduce the impacts of chemicals and waste on health and environment, although attribution cannot always be clearly specified.

A number of entities, processes and considerations were identified through the group discussions that could have data and possibly indicators that the Beyond 2020 Framework could build upon or benefit from. It is suggested that these are used as the basis for a mapping exercise of existing global data and indicators that could be relevant to the Beyond 2020 Framework:

**Chemicals and Waste**

- Basel
- Rotterdam
- Stockholm
- Minamata
- Global Chemicals Outlook
- American Institution of Chemical Engineering – annual survey with global reach, but limited approach
  - AIChE – CCPS (Process Safety Leading & Lagging Indicators Industry Survey)
- IChemE Safety Centre (IChemE Accident Database)
Overarching global/regional frameworks

- SDGs (particularly goals 3, 6, 11, 12 and 14)
- OECD

Company Reporting / Industry Reporting

- The Global Reporting Initiative – Standard 4; non-compliance indicator
- WTO
- The ICCA’s Responsible Care Initiative

Health

- WHO (particularly the International Health Regulations and a subsection looking at pharmaceutical manufacture)
- International Agency for Researching Cancer

Labour

- ILO

Agriculture

- FAO

Biodiversity

- CBD
- CITES
- Ramsar
- The Convention on Migratory Species (CMS)
- Regional Seas Programmes (particularly HELCOM and OSPAR)

Climate Change / Desertification / Atmospheric Impacts

- CDP (Formerly the Carbon Disclosure Project) - links with industry reporting
- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Convention to Combat Desertification (UNCCD)
- Montreal Protocol

Energy

- International Atomic Energy Authority
- International Energy Agency
- The Oil Pollution Preparedness Response and Co-operation Convention

Maritime

- Marpol
- International Maritime Organisation’s London Convention

Security

- The Chemical Weapons Convention
• The Convention for the Prevention of Major Industrial Accidents

Media

• ChemWatch

It was noted that, in capitalising on synergies, demonstrating the value of chemicals management to other processes (e.g. in achieving the SDGs) and thereby leveraging support and awareness is also critical to demonstrate the importance of sound management and chemicals and waste Beyond 2020.
6. Suggested next steps

This INF Doc was produced directly following the workshop. Core sections were shared with participants for comment and feedback.

Next steps identified include:

- **UNEP-WCMC will present the findings of this workshop** at a technical briefing at the third meeting of the intersessional process in Bangkok on Monday, 30th September 2019. The aims of the briefing are threefold:
  - to communicate, and invite feedback on the main findings of the workshop;
  - to provoke discussion amongst the briefing participants on the implications of these findings for IP3 and Beyond 2020; and,
  - to ask participants’ views on how to continue the process of developing indicators in relation to the targets after IP3.

- **Workshop participants are requested to consider how they can take the results of this workshop forward** with their delegations and stakeholder groups, specifically:
  - How the workshop findings can be used by those discussing the targets at the third meeting of the intersessional process in Bangkok; and,
  - What contributions participants or their delegations might be able to make to take the process of developing indicators forward after Bangkok.

- **A mapping exercise for existing data and indicators** is needed to identify existing authoritative global and regional processes that could be used as the basis for developing an indicator framework to support the Beyond 2020 and avoid any duplication of efforts with other initiatives and frameworks. It would also help to identify where simple changes can improve the usefulness of existing data.

- **Further work** is suggested to consider the indicators developed during the workshop in light of the mapping work referred to above and changes to the targets as a result of discussions at the third intersessional process meeting in Bangkok. Each target and indicator should be fully analysed in the context of one another and with reference to the available data to ensure a comprehensive suite of indicators.
ANNEX 1: List of indicators as identified at the workshop

The below list of indicators includes those that were identified through the group exercises at the workshop in relation to each of the draft targets. This was intended as a brainstorming exercise, rather than to produce a definitive list of recommended indicators for use under Beyond 2020.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic objective A:</strong> Measures are identified, implemented and enforced in order to prevent or, where not feasible, minimize harm from chemicals throughout their life cycle [and waste]</td>
<td></td>
</tr>
<tr>
<td>A1: Countries adopt, implement and enforce legal frameworks that address risk prevention and the reduction of adverse impacts from chemicals throughout their life cycle and waste.</td>
<td></td>
</tr>
<tr>
<td>Number of legal frameworks adopted by countries to address risk prevention</td>
<td>Suggest minimum number of legal frameworks that should be adopted, or a baseline to show progress.</td>
</tr>
<tr>
<td>Number of legal frameworks adopted by countries to reduce adverse impacts from chemicals throughout their lifecycle and waste</td>
<td></td>
</tr>
<tr>
<td>Number of legal frameworks implemented by countries to address risk prevention</td>
<td></td>
</tr>
<tr>
<td>Number of legal frameworks implemented by countries to reduce adverse impacts from chemicals throughout their lifecycle and waste</td>
<td></td>
</tr>
<tr>
<td>Number or percentage of countries adopting elements [or had elements in place] from the IOMC toolkit, including:</td>
<td>The IOMC Toolbox has levels corresponding to the number of elements incorporated into legal framework(s). These could be displayed as a map showing countries that had reached level 1, level 2 etc. Data would be self-reported by countries.</td>
</tr>
<tr>
<td>• Inventory</td>
<td></td>
</tr>
<tr>
<td>• GHS</td>
<td></td>
</tr>
<tr>
<td>• Chemicals products register</td>
<td></td>
</tr>
<tr>
<td>• Risk Assessment for New Chemicals</td>
<td></td>
</tr>
<tr>
<td>• etc</td>
<td></td>
</tr>
<tr>
<td>Number or percentage of countries implementing elements from the IOMC toolkit.</td>
<td>Implementation could be recorded through secondary indicators such as:</td>
</tr>
<tr>
<td></td>
<td>• If PRTR implemented, annual data reported (Y/N)</td>
</tr>
<tr>
<td></td>
<td>• If Risk Assessment of New Chemicals implemented, the number of risk assessments undertaken per number of new chemicals on the market.</td>
</tr>
<tr>
<td>Number of inspections undertaken/inspectors per the number of relevant industries</td>
<td>It is recognised that ‘relevant industries’ is poorly defined, however it is questioned whether the ILO has data on the number of companies within any one country within its remit?</td>
</tr>
<tr>
<td>Number of inspections/inspectors per the volume of chemicals imported and produced</td>
<td>It is noted that this does not specify what kind of inspections are included, which would need to be defined in order to ensure quality reporting</td>
</tr>
<tr>
<td>Number of inspections/inspectors per population</td>
<td></td>
</tr>
<tr>
<td>Number of inspections/inspectors expressed as a % of GDP</td>
<td>This requires further elaboration on the circumstances in which fines are levied.</td>
</tr>
<tr>
<td>Number of enforcement fines levied</td>
<td></td>
</tr>
<tr>
<td>A2: Countries have sufficient capacity to address chemicals and waste issues nationally, including appropriate inter-agency coordination and stakeholder participation mechanisms, such as national action plans.</td>
<td></td>
</tr>
<tr>
<td>Number of scientists competent in relevant disciplines (e.g. ecotoxicology, toxicology) per population</td>
<td>A proxy could be UN statistics on graduating chemists (and other relevant disciplines) on a national basis.</td>
</tr>
<tr>
<td>Number of personnel in relevant roles within Government per population</td>
<td>Suggest agreeing a benchmark for the minimum personnel required. There may be data already collected through the IHR on personnel working in occupational health, nationally.</td>
</tr>
<tr>
<td>Number of personnel in occupational health &amp; safety per number of employees</td>
<td></td>
</tr>
<tr>
<td>The level of financial resources available nationally for the management of chemicals and wastes</td>
<td>Potential overlap with Target E4</td>
</tr>
</tbody>
</table>
### The level of infrastructure in a country available to manage chemicals and wastes

This needs further definition, however it is suggested that a defined list or relevant infrastructure be agreed, for example including labs and poison centres.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial indicator:</strong> the volume of non-hazardous waste treated as a proportion of total non-hazardous waste generated nationally</td>
<td></td>
</tr>
<tr>
<td><strong>Initial indicator:</strong> the volume of hazardous waste treated as a proportion of total hazardous waste generated nationally</td>
<td></td>
</tr>
<tr>
<td><strong>Advanced indicator:</strong> The proportion of [hazardous] waste generated nationally that is: recovered, recycled, landfilled/incinerated.</td>
<td></td>
</tr>
</tbody>
</table>

| Number of countries with a formal inter-ministerial co-ordinating body | Already collected by an existing SAICM indicator                           |
| Number of countries with a formal multi-stakeholder co-ordinating body | The ILO already collects data on tri-partite coordination bodies            |

### ADDITIONAL – Trends in gender equity in stakeholder involvement

### ADDITIONAL – Trends in participation of all relevant stakeholders at national level

A3: Countries are implementing the chemicals and waste-related multilateral environmental agreements, as well as health, labour and other relevant conventions, and voluntary mechanisms such as the Globally Harmonized System of Classification and Labelling of Chemicals.

| Number or % of countries signed key MEAs / agreements | Key MEAs would need to be identified as a proxy for participating in and implementing MEAs / agreements |
| Number or % of countries implementing key MEAs / agreements | Much of this data already exists in the reporting for the GHS, PRTR, BRS Conventions, National Improvement Plans, IHR, National Profiles under UNITAR, WHO |
| Number or % of countries participating in key MEAs / agreements |                                            |
| Number or % of countries engaging with key MEAs / agreements |                                            |
| Number or % of countries implementing in principle key MEAs / agreements (but not necessarily signing) |                                            |

| % of Parties complying with their obligations under the MEAs | Each IOMC / MEA has its own definition of ‘compliance’ with Parties’ obligations, and reporting of implementation |
| % of countries reporting as a proportion of total country signatories |                                                                                                           |

A4: Stakeholders have incorporated the sound management of chemicals throughout their life cycle and waste into their planning, policies and practices, thereby supporting the development and implementation of chemicals management systems and other sector-appropriate mechanisms.

| % stakeholders (within sector) that have incorporated policies, plans, practices that develop and implement chemical management systems | Depending on the stakeholder, some or all of Policies, plans and practices may be relevant (so considered in one indicator) |

A5: Governments and industry ensure that workers are protected from the risks associated with chemicals and waste and that workers have the means to protect themselves.

<p>| #/% of states that have promoted a management system approach to occupational health and safety (OSH) at workplaces such as ILO-OSH 2001 | Seen as best supported by ILO conventions/data. Also indicators of number who have enforced this approach and recorded results. Groups preferred 'adopt, ratify, enforce' |
| #/% of workers covered by formal OSH approaches | Questions about measurability |
| #/% of workplaces that have been audited on health and safety |                                                                                                           |
| % of states with a registry of companies using or manufacturing chemicals | Seen as a prerequisite for other indicators of A5 |
| % of legal frameworks that include the hierarchy of control for reducing workers’ chemical exposures |                                                                                                           |
| # of countries/workplaces that have adopted OSH standards based on robust technical guidelines |                                                                                                           |
| SDG 8.8.1 indicators, frequency of fatal and non-fatal occupational injuries by sex and migrant status |                                                                                                           |
| Level of national compliance with labour right based on ILO textual sources and national legislation, by sex and migrant status |                                                                                                           |
| Number of countries that have ratified ILO conventions 29, 87, 98, 100, 105, 111, 138, 133, 155, 161, 162, 167, 170, 174, 176, 182, 183, 184, 187 |                                                                                                           |</p>
<table>
<thead>
<tr>
<th># countries with PRTR data (as a measure of awareness of the need for protection)</th>
</tr>
</thead>
<tbody>
<tr>
<td># countries/industry with established compensation system for workers hurt by chemical incidents and accidents</td>
</tr>
<tr>
<td>Impact indicator SDG 3.9.3 on unintentional poisoning</td>
</tr>
<tr>
<td>Strategic objective B: Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B1: Comprehensive data and information for chemicals on the market are available and accessible, including information and data on properties, health and environmental effects, uses, hazard- and risk-assessment results and risk-management measures, monitoring results and regulatory status throughout their life cycle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.1 Number of countries with national chemical inventories (existing IOMC indicator – PRTR)</td>
</tr>
<tr>
<td>B1.2 Platform(s) / navigator(s) available to access data and information</td>
</tr>
<tr>
<td>B1.3 Training / capacity building to increase access and use of data and information</td>
</tr>
<tr>
<td>B1.4 Number of countries ratified Aarhus Convention on Access to Information</td>
</tr>
<tr>
<td>B1.5 Comprehensive data and information available for xx chemical; xx chemical group</td>
</tr>
<tr>
<td>B1.5 Web-site visitors (based on targeted communication strategy)</td>
</tr>
<tr>
<td>B1.6 Number of tools, guidelines and best practices available (international, regional, national)</td>
</tr>
<tr>
<td>B1.7 Number of trainings organized to promote use of tools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B2: All stakeholders, in particular industries and regulators, have and are using the most appropriate and standardized tools, guidelines and best practices for assessments and sound management, as well as for the prevention of harm, risk reduction, monitoring and enforcement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2.1 Number of tools, guidelines and best practices available (international, regional, national)</td>
</tr>
<tr>
<td>B2.2 Number of tools used</td>
</tr>
<tr>
<td>B2.3 Number of trainings organized to promote use of tools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B3: Information and standardized methods are available and used to understand the impacts of chemicals and waste for improved burden-of-disease and cost-of-inaction estimates, to inform the advancement of chemical safety measures and to measure progress towards reducing those impacts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3.1 Number of globally agreed standards for collecting data on:</td>
</tr>
<tr>
<td>B3.2 Number of governments implementing standardized data collection methods: Poison centres (example); ChemObs</td>
</tr>
<tr>
<td>B3.3 Number of methods / platforms for data translation nationally, regionally and globally (clearinghouse, policy briefs, publications)</td>
</tr>
<tr>
<td>B4: Educational, training and public awareness programmes on chemical safety and sustainability have been developed and implemented, including for vulnerable populations, along with worker safety curricula and programmes at all levels.</td>
</tr>
<tr>
<td>Numbers of educational, training and public awareness programmes addressing chemical safety and chemical sustainability (noting that this</td>
</tr>
</tbody>
</table>
would need to be broken down by types of activities undertaken. This indicator could be applicable at national, regional and international levels

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td># of stakeholders engaged in awareness raising activities for chemical safety and sustainability</td>
<td></td>
</tr>
<tr>
<td>Proportion of employees trained in chemical safety</td>
<td></td>
</tr>
<tr>
<td>Population awareness of chemical safety and sustainability</td>
<td>Using data from population surveys, note possible need for a global communications strategy</td>
</tr>
<tr>
<td># of students studying chemical safety and sustainability</td>
<td></td>
</tr>
<tr>
<td>Vulnerable populations included in educational training and awareness programmes (with drop down for specific groups: children, women, elderly, low literacy, informal sector workers, workers, disabled, indigenous populations)</td>
<td></td>
</tr>
<tr>
<td>Vulnerable populations addressed in curricula and text of educational, training and awareness programmes (with drop down as above)</td>
<td></td>
</tr>
<tr>
<td>Participation in educational, training and awareness programmes on chemical safety and sustainability, including # graduated, # participants, # people receiving awareness programme</td>
<td></td>
</tr>
<tr>
<td># of governments with strategy for chemical safety programmes</td>
<td></td>
</tr>
<tr>
<td># of chemistry students (NGOs such as UNESCO have data?)</td>
<td></td>
</tr>
<tr>
<td>SAICM indicator B.7 Number of countries and organisations that have specific strategies in place for communicating information on the risks associated with chemicals to vulnerable groups</td>
<td></td>
</tr>
<tr>
<td>SDG indicator 3.9.3 Mortality rate attributed to unintentional poisoning (as an indicator of outcome from awareness programmes)</td>
<td></td>
</tr>
<tr>
<td>Schools employing a standard curriculum for education in chemical safety</td>
<td></td>
</tr>
<tr>
<td>Change in behaviour as result of public awareness programmes on chemical safety and sustainability</td>
<td></td>
</tr>
<tr>
<td>Health professionals trained in awareness of toxicology</td>
<td></td>
</tr>
<tr>
<td>B5: Countries and stakeholders are implementing training on environmentally sound and safer alternatives, as well as on substitutions and the use of safer alternatives, such as agroecology</td>
<td></td>
</tr>
<tr>
<td>Number of industries that have gone through accredited programmes that promote the concepts of environmentally sound safer alternatives.</td>
<td></td>
</tr>
<tr>
<td>Number of people that have gone through accredited programmes that promote the concepts of environmentally sound safer alternatives.</td>
<td></td>
</tr>
<tr>
<td>Number of countries that have gone through accredited programmes that promote the concepts of environmentally sound safer alternatives.</td>
<td></td>
</tr>
<tr>
<td>Number of training activities implemented by IGOs to support the development of environmentally sound and safer alternatives.</td>
<td></td>
</tr>
</tbody>
</table>

**Strategic objective C: Issues of concern [that warrant [global] [and] [joint] action] are identified, prioritized and addressed:**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Programmes of work including timelines are established, adopted and implemented for identified issues of concern.</td>
<td></td>
</tr>
<tr>
<td># of multi-stakeholder workplans established for issues of concern</td>
<td></td>
</tr>
<tr>
<td># of multi-stakeholder progress reports periodically submitted per issue of concern</td>
<td></td>
</tr>
<tr>
<td># of processes / early warning systems in place to manage issues of concern</td>
<td></td>
</tr>
<tr>
<td># of issues of concern for which targets in programme of work were achieved, as proportion of issues of concern</td>
<td></td>
</tr>
<tr>
<td># programmes of work to develop targets that show progress and allow for disaggregation among countries</td>
<td></td>
</tr>
<tr>
<td>Funding and resources provided or made available to implement programmes of work as a proportion of funding needed</td>
<td></td>
</tr>
<tr>
<td>Indicators related to specific issues of concern, e.g. # of countries that have eliminated lead in paint (IOMC)</td>
<td>Current EPIs. Where do these indicators belong?</td>
</tr>
</tbody>
</table>
### C2: Information on the properties and risk management of chemicals across the supply chain and the chemical contents of products is available to all to enable informed decisions.

- What is the difference between targets B2 and C2? This could be clarified in the targets.
- Could be a more specific role for industry here.
- No mention of voluntary label schemes.
- Explicitly engaging specific supply chains may promote greater impact.
- Product trade information may be important here.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2.1</td>
<td>Number of countries that implement the GHS</td>
</tr>
<tr>
<td>C2.2</td>
<td>Number of alert system platforms for sharing information on product safety (products: toys, textiles, electronics, building materials)</td>
</tr>
<tr>
<td>C2.3</td>
<td>Number of countries that implement regulations on products placed on the market</td>
</tr>
<tr>
<td>C2.4</td>
<td>Number of countries that enforce regulations on products placed on the market</td>
</tr>
<tr>
<td>C2.5</td>
<td>Number of products with Safety Data Sheets</td>
</tr>
<tr>
<td>C2.6</td>
<td>Number of databases available for chemicals in products</td>
</tr>
</tbody>
</table>

### Strategic objective D: Benefits to human health and the environment are maximized and risks are prevented or, where not feasible, minimized through safer alternatives, innovative and sustainable solutions and forward thinking

#### D1: Companies adopt corporate policies and practices that promote resource efficiency and that incorporate the development, production and use of sustainable and safer alternatives, including new technologies and non-chemical alternatives.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of companies/% companies that have adopted promotion of resource efficiency in their corporate policy.</td>
<td></td>
</tr>
<tr>
<td>Number of companies/% companies that use natural products as a source for their products.</td>
<td></td>
</tr>
<tr>
<td>Number of companies/% companies that have developed an overall environmental or sustainability plan.</td>
<td></td>
</tr>
<tr>
<td>Number of start-ups promoting innovative and sustainable chemical solutions.</td>
<td></td>
</tr>
<tr>
<td>Amount of investment (R &amp; D per region) on (new) innovation chemical techniques.</td>
<td></td>
</tr>
</tbody>
</table>

#### D2: Governments implement policies that promote innovation to facilitate the recycling and re-use of products, the adoption of sustainable and safe alternatives, including new technologies and non-chemical alternatives (e.g., the prioritized licensing of reduced-risk alternatives, assessment frameworks, labelling schemes and purchasing policies).

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of countries promoting and adopting circular economy and green public procurement.</td>
<td></td>
</tr>
<tr>
<td>Number of countries using sustainable chemistry principles.</td>
<td></td>
</tr>
<tr>
<td>Number of governments with efficient pesticide regulations.</td>
<td></td>
</tr>
<tr>
<td>Number of governments with the proper infrastructure for licensing, certification and labelling of pesticides.</td>
<td></td>
</tr>
<tr>
<td>Percentage of government research funding allocated to safe alternatives.</td>
<td></td>
</tr>
</tbody>
</table>

Existing indicators:
- Global Reporting Initiative (GRI) 4xx
- Global Compact
- Rating Agencies: Dow Jones Sustainability Index/ Eco Vadis/Carbon Disclosure Project
- Responsible Care
- FTSE 4 Good
- SDG Indicator 12.1

Existing indicators:
- SAICM indicator 8
- SDG indicators 12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies
<table>
<thead>
<tr>
<th>Number of governments and the private sector applying extended producer responsibility (EPR)</th>
<th>12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment 12.5.1 National recycling rate; tons of materials recycled. (Tier III).</th>
</tr>
</thead>
<tbody>
<tr>
<td>D3: Companies, including from the investment sector, incorporate strategies and policies to support the sound management of chemicals and waste in their investment approaches and business models and apply internationally-recognized reporting standards where relevant</td>
<td>Some overlap with target D4 (and D5). Need for enabling environment by governments (D2) recognized. Intent D3/4 understood as focused on role companies and innovation</td>
</tr>
<tr>
<td>Number of companies/turnover/investments that incorporate business models/approaches for the sound management of chemicals and waste</td>
<td></td>
</tr>
<tr>
<td>Amount of investment in capacity building that address sound management of chemicals and waste</td>
<td></td>
</tr>
<tr>
<td>Number of patents issued related to sustainability</td>
<td></td>
</tr>
<tr>
<td>Number of companies that implement sound management of chemicals / responsible care policies</td>
<td>Industry associations to report on</td>
</tr>
<tr>
<td>Number of companies that incorporate strategies and policies</td>
<td>Linked to the one above</td>
</tr>
<tr>
<td>Number of companies applying reporting standards, such as GRI</td>
<td></td>
</tr>
<tr>
<td>Number of companies certified for EMS/HSE (e.g. ISO)</td>
<td>Rephrased as indicator</td>
</tr>
<tr>
<td>D4: Companies apply sustainable production principles and life-cycle management in the design of chemicals, materials and products, taking reduced-risk, design-for-recycling and non-chemical solutions and processes into account.</td>
<td></td>
</tr>
<tr>
<td>Countries report on the number of hazardous chemicals imported and produced on a yearly basis.</td>
<td></td>
</tr>
<tr>
<td>Companies report on the amount of recyclability of the total components of their chemicals, materials and products.</td>
<td></td>
</tr>
<tr>
<td>Companies report on the percent reduction of PRT in the total components of their chemicals, materials and products.</td>
<td></td>
</tr>
<tr>
<td>The number of companies certified under international standards.</td>
<td></td>
</tr>
<tr>
<td>Companies report on the number of non-chemical solutions, emissions from energy consumption and reduction in occupational chemical exposures.</td>
<td></td>
</tr>
<tr>
<td>Target D5 – Industry associations promote change towards sustainability and the safe management of waste and of chemicals and consumer products throughout their life cycles, including in sharing information and building the capacity of small and medium-size enterprises to reduce risks.</td>
<td>Intent of target is (also) to enlarge reach to Small and Medium Sized enterprises. Indicators need to allow for being mindful to geographic development and focus capacity building to regions where the production/use of chemicals is biggest</td>
</tr>
<tr>
<td>Number of member companies (of industry associations)</td>
<td>Unit of measure can be differentiated by company size (&gt;1000, 1000-500, 250-50, &lt;50 as example)</td>
</tr>
<tr>
<td>Professional body engagement (Cruzera, P.E., EurIng, EurChem) by organization staff</td>
<td></td>
</tr>
<tr>
<td>Number of industry associations that promote sustainable chemistry</td>
<td></td>
</tr>
<tr>
<td>$ (investment) in capacity building</td>
<td>Include person hours</td>
</tr>
<tr>
<td>Number of member companies taking part in capacity building workshops</td>
<td></td>
</tr>
<tr>
<td>Number of SMEs implementing responsible care</td>
<td>Industry associations to report on</td>
</tr>
<tr>
<td>Number of technical publications/ detailed resources issued to members</td>
<td>Output indicator</td>
</tr>
<tr>
<td>Change in stochastic risk (disease burden, excess mortality etc.)</td>
<td>Impact indicator</td>
</tr>
<tr>
<td>Ratio between indicator association member: new member (in these statistical measures)</td>
<td>Impact indicator</td>
</tr>
<tr>
<td>Amount of hazardous substances in consumer products</td>
<td>Impact indicator</td>
</tr>
</tbody>
</table>

**Strategic objective E:** [The importance of the sound management of chemicals and waste as an essential element to achieving sustainable development is recognized by all; adequate financial and non-financial resources are [identified and] mobilized; actions are accelerated; and necessary [transparent and accountable] partnerships are established to foster cooperation among stakeholders].]

E1: The highest levels of stakeholder organizations, including government, industry, civil society and international organizations in all relevant sectors, formally recognize the importance of and commit to action on the sound... The highest levels – means leaders, decision-makers, CEOs etc. Recognising relevance of SMCW to sustainable development is part of recognising...
management of chemicals and waste, and recognize its relevance to sustainable development. | their importance, not separate to. Commit to action doesn’t mean meaningful action.
---|---
# of conventions signed | Aimed at political leaders
% of budget allocated to chemicals issues | Aimed at political leaders
Number of public commitments to Beyond 2020 Targets | all stakeholders
Index measure of delivery on Beyond 2020 targets for a given committed stakeholder | The chemistry related SDG targets are fulfilled
Integration of Beyond 2020 into all relevant sectors/ministries – cross sectoral committees in place | Maybe relevant to multiple targets. No timeframe!

| E2: Policies and processes for the management of chemicals and waste are integrated into national and regional development strategies. | % of countries with national and regional development strategies that include policies and processes for the management of chemicals and waste
---|---
E3: Inter- and intra-sectoral partnerships, networks and collaborative mechanisms are established to mobilize resources, to share information, experiences and lessons learned, and to promote coordinated action at the regional and international levels. | No responsible agency. Does the ‘regional and international levels’ apply to all the target, or just to promoting coordinated action?

| Number of intra-sectoral partnerships/networks with collaborative mechanisms in place, a programme of work, and reporting/evaluating their achievements | Each partnership/network will have its own aims, and ‘success’ (i.e. resources mobilised, information shared) will need to be evaluated in relation to its programme of work.
---|---
Number of inter-sectoral partnerships/networks with collaborative mechanisms in place, a programme of work, and reporting/evaluating their achievements | Each partnership/network will have its own aims, and ‘success’ (i.e. resources mobilised, information shared) will need to be evaluated in relation to its programme of work.

| % of resources generated from established partnership for sound management of chemicals and waste | Links to indicator under E4?
---|---
% of established partnerships that have functioning mechanisms in place to share information | E4: Identify and mobilize the financial and non-financial resources needed to promote the sound management of chemicals and waste in all sectors, by and for all stakeholders.

Identifying financial needs is a pre-cursor to mobilising them, so only makes sense to measure those mobilised.

| Number of operations to dedicate external funding for governments, industry and civil society to promote the sound management of chemicals and waste | Chemicals will be very different to waste
---|---
$m$ mobilised by donors, banks, IGOs and the GEF to dedicated external funding through loans and grants to governments, industry and civil society to promote the sound management of chemicals and waste | Chemicals will be very different to waste
$m$ mobilised by governments, industry, IGOs, and civil society through mainstreaming to promote the sound management of chemicals and waste

| Human/physical resources developed by Governments, Industry, IGOs and Civil Society (E.G. no of workshops, guidelines developed, webinars given, equipment) to promote the sound management of chemicals and waste | Chemicals will be very different to waste
---|---

| E5: Gaps between developed and developing countries are narrowed in terms of the implementation of sound management of chemicals and waste. 6 Stakeholders may wish to decide whether targets should be time bound. Dates have not been inserted in the present draft | This target is formulated as an outcome; it is visionary, but not in keeping with other targets.

Rather than its own indicators, this target could look at trends in disaggregating all the above indicators by developed/developing countries and any changes in the gap.
---|---

Existing IOMC indicators relevant here

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