

Strategic Objective B: Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions

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.

Alt B1. By 20xx, information on the identity and health and environmental effects of all chemicals on the market are shared throughout the [life cycle] supply chain and with consumers

Observation: B1 is very similar to the Objective and extends it. So more preferable could be Alt. B1 since objective could be reached, its time bound, is concise and is impact oriented. But defining “all” chemicals could be taken with reservation, because is it achievable, maybe hazardous chemicals or all classified by GHS (but GHS is not globally covered)? Furthermore, background document/ footnote could be develop to clarify what kind of information is covered.

Possible indicator

1. Number of countries implementing GHS-it is impact oriented, achivieable, and easy measurable (existing GHS inicator UNECE, UNITAR, ILO- / TWG document /4
2. Number of countries with chemicals registers/inventories (existing IOMC indicator –PRTR) TWG document /4
3. Number of countries ratified Aarhus Convention on Access to Information

On all other proposal for indicators we should consider how and if we could follow progress

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.

Responsible agency	Activity	Output	Outcome/impact
	Comprehensive data and information are available and accessible	Information and data on properties, health effects, environmental effects, uses, hazard and risk assessments, risk management measures, monitoring results.	

- From this we notice that no responsible agency is highlighted. Responsibility for action has to be clear in order for a target to be met, however this could be laid out in the target, in the indicators or in the overarching document within which the target sits.
- There is also no outcome or impact included, however it is noted that the use of such data and information is implicit in targets B2, B3, B4, & B5. Consideration of the impact of this target could be considered here.
- It is obvious that much of the text is focused on highlighting the different types of priority data that should be available and accessible. This makes the target rather long.

The common words to both the Strategic Objective and draft target are highlighted. Comprehensive data and information being available and accessible could be considered the primary focus of this target.

- It is noted that ‘informed decisions and actions’ are implicit in draft targets B2-5.
- ‘Sufficient knowledge’ is not included in any other draft target. It is therefore included here

SMART target:

‘Specific:

- What data and information?
 - High-level - chemicals on the market throughout their life cycle
 - Detail - 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
- What is ‘comprehensive’?
 - At a minimum, 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
- What market?
 - The global market
- Who makes the data available?
 - Given the definition of ‘comprehensive data’ above, industry and regulators.
- What ‘sufficient’ and ‘knowledge’?
 - Knowledge of chemicals, however this does not add to the more specific terms ‘data’ and ‘information’, so is removed. ‘Sufficient’ is therefore also removed (and noted to be hard to define and measure).
- Available and accessible to who?
 - The stakeholders outlined in Objectives B2-5, for the purposes outlined in those targets

Best Practice is not to include the detail in a target. A target should be short, concise and easily communicable. Alternative placements include in footnotes, supplementary guidance documents or, as in this case, in the indicator.

Interim target no.2: Industry and regulators generate comprehensive data and information on chemicals on the global market, throughout their lifecycle, and make it available and accessible.

More information on the purpose and the users of the data is not needed, since these are implicit in the following targets.

Measurable:

- What is the ideal indicator?
 - The number/percentage¹ of chemicals on the market, at every stage of their lifecycle, that have data and information on properties, health and environmental effects, uses, hazard- and risk-assessment results and risk-management measures, monitoring results and regulatory status available and accessible.
- What can realistically be measured?
 - The number of chemical data and information repositories or navigators available for public use. (‘available’)
 - The number of chemicals on these repositories or navigators with information and data available on properties, health and environmental effects, uses, hazard- and risk-assessment

¹ Percentage can only be used if we know the total number of chemicals on the global market.

results and risk-management measures, monitoring results and regulatory status at every stage of their lifecycle. ('available' & 'comprehensive')

- The number of visitors / downloads at these repositories, split by stakeholder or sector. ('accessible')
- What indicators already exist?
 - Number of countries with national chemical inventories (existing IOMC indicator – PRTR)
 - Number of countries that have ratified the Aarhus Convention on Access to Information
- What is the baseline?
 - The first year of measurement of the indicator(s)
- Is this draft target measurable?
 - Yes, for the most part.

Achievable:

- Can comprehensive data and information on chemicals on the market, throughout their lifecycle, be made available and accessible?
 - Yes!

Relevant

- Is the target relevant to the Strategic Objective?
 - We based the draft target wording on text from the Strategic Objective, so yes.
- Is the target relevant to other Strategic Objectives or targets?
 - This target relies on targets B2 – B5 to explain the users, uses and impact of this data being made available
 - 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.*
 - Suggested response: If the overlap serves no purpose then delete it from D5. If it is key, keep it and share an indicator.

Timebound

- What is the date by which this must be achieved?
 - To be determined

Proposed target B1: *By 20xx, industry and regulators generate comprehensive data and information on chemicals on the global market, throughout their lifecycle, and make it available and accessible.*

Observation: fully support this proposal

Possible indicator

1. Number of countries implementing GHS-it is impact oriented, achievable, and easy measurable (existing GHS indicator UNECE, UNITAR, ILO- / TWG document /4
2. Number of countries with chemicals registers/inventories (existing IOMC indicator –PRTR) TWG document /4
3. Number of countries ratified Aarhus Convention on Access to Information

On all other proposal for indicator I have reservation due to some reasons in general how we could follow progress

Objective B. Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions

Target B.2: [By 20xx]All stakeholders, in particular industries and regulators, [generate,] have and are [using] [sharing][the most] appropriate and [standardized] tools, guidelines and [available] [applicable][best] [good] practices [and technologies] for [risk] assessments [and sound management], as well as for the [prevention of harm] [minimization of adverse impacts], risk reduction, monitoring and enforcement.

Alt 1 B.2 By 20xx, [sound management of chemicals and waste and] [best] [good] practice for [risk] assessments, monitoring and enforcement is implemented by stakeholders, including industries and regulators.

Alt 2 B.2 By 20xx, appropriate tools, assessments and practices for the prevention and minimization of harm, monitoring and enforcement are used.

Responsible agency	Activity	Output	Outcome/impact
<i>All stakeholders (industry /regulators)</i>	<i>using the most appropriate and standardized tools, guidelines and best practices</i> <i>Identification of the available tools, guidelines and best practices</i>	<i>appropriate tools, assessments and practices for the prevention and minimization of harm, monitoring and enforcement are used</i>	<i>Outcome could be assessments and sound management and decreasing of risk reduction, prevention of harm</i>

- Stakeholders are mentioned in the target and target is also time bound. But it could be difficult to set a certain year of achievement here, as these are ongoing activities.
- General remark regarding B2 is that maybe it would be more suitable under Objective A. Compared with other targets under Objective B, B2 is not so clear of how it contributes to achieving Objective B, which is mostly about generating information and making it accessible.

Comparison with Objective B:

Target B.2: [By 20xx]All stakeholders, in particular industries and regulators, [generate,] have and are [using] [sharing][the most] appropriate and [standardized] tools, guidelines and [available] [applicable][best] [good] practices [and technologies] for [risk] assessments [and sound management], as well as for the [prevention of harm] [minimization of adverse impacts], risk reduction, monitoring and enforcement.

Alt 1 B.2 By 20xx, [sound management of chemicals and waste and] [best] [good] practice for [risk] assessments, monitoring and enforcement is implemented by stakeholders, including industries and regulators.

Alt 2 B.2 By 20xx, appropriate tools, assessments and practices for the prevention and minimization of harm, monitoring and enforcement are used.

Parts marked with **bold** could be seen as contributing to the Objective B part ***available and accessible to all to enable informed decisions and actions***. *As when appropriate tools/practices are in use then they help to make informed decisions and actions.*

Specific:

- What data and information?
 - o High-level – use of appropriate tools and guidelines
 - o Detail – difficult to determine what should be the detailed part in this target. All the different types of tools, guidelines and practices probably.
- What is ‘comprehensive’?
 - o Difficult to assess.
- What market?
 - o The global market
- Who makes the data available?
 - o All stakeholders
- What ‘sufficient’ and ‘knowledge’?
 - o Not easy to define. Draft target uses word appropriate regarding different tools/measures. But appropriate does not say what it sufficient. It is also difficult to define knowledge in this target.
- Available and accessible to who?
 - o All stakeholders

Measurable:

- What is the ideal indicator?
 - o Number of tools, guidelines and best practices available (international, regional, national) and in use.
- What can realistically be measured?
 - o The number of different tools and guidelines in use can be measured. But still question remains if this gives enough information to measure the progress.
- What indicators already exist?
 - o IOMC toolbox
 - o LIRA guidance
 - o ICCA regulatory toolbox.
 - o Survey on experiences on using existing tools
- What is the baseline?
 - o The first year of measurement of the indicator(s)
- Is this draft target measurable?
 - o Yes, for the most part.

Achievable:

- Can comprehensive data and information on chemicals on the market, throughout their lifecycle, be made available and accessible?
 - o Yes

Relevant

- Is the target relevant to the Strategic Objective?

- Target B2 is not so clearly relevant to Objective B, as other targets under B. It seems that B2 could be more relevant under Objective A.
- Is the target relevant to other Strategic Objectives or targets?
 - It seems to overlap with targets B4 and B5 and also the intention of target B2 could be seen as covered by Objective A targets.

Timebound

- What is the date by which this must be achieved?
 - To be determined. B2 covers ongoing activities. Might be difficult to set the deadline for achievement.

Proposed target B1: *Alt 2 B.2 By 20xx, appropriate tools, assessments and practices for the prevention and minimization of harm, monitoring and enforcement are used.*

Step 4- Identify 2-5 indicators per target

Number of tools, guidelines and best practices available (international, regional, national)

Number of tools used

Number of trainings organized to promote use of tools

Strategic Objective B: Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions

Target B.3: 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.

Alt 1 B.3 Chemical safety measures are advanced by the development of knowledge of the impacts of chemicals and waste on the burden-of-disease and cost-of-inaction estimates.

Alt 2 B.3 The impact of chemicals and waste as regards for burden-of-disease and cost-of-inaction estimates are known for chemicals classified in accordance to GHS.

Alt 3 B.3 By 20xx, stakeholders have put in place mechanisms to access information and standardized methods to assess, reduce and prevent health impacts at all stages of the chemical life cycle.

Observation: Target B3 is very well linked with objective. Only gaps could be not defining time bond and its not concise, it should be extended, concern could be in measurement of progress since standardization of methods is continuously updating/upgrading process. Not sure, is the quality of data covered or it could be covered and self-explained by wording “standardized methods”? Additionally, measuring progress could be part of reporting or indicator. Information and standardization of method is ongoing activity it is changeable in way of constant improvement.

So preferable could be Alt. versions Alt 2. – but it is not time bound, so Alt3 could be considered as it is time bound, the objective could be reached, it is concise and is impact oriented.

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.*

Responsible agency	Activity	Output	Outcome/impact
	understand the impacts of chemicals and waste for improved burden-of-disease and cost-of-inaction estimates	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	Reducing impacts of chemicals and waste

- No responsible agency is highlighted. Responsibility for action has to be clear in order for a target to be met, however this could be laid out in the target, in the indicators or in the overarching document within which the target sits. In case of B3 in some indicators the responsible agency could be defined.
- Outcome and impact are included.

Target covers also measuring the progress which makes target quite long. Measuring progress could be covered with indicators. The common words to both the Strategic Objective and draft target are highlighted: **Information and standardized methods are available** in Target B3- this could be covered by **Comprehensive and sufficient knowledge** in Objective, since standardized methods allows good quality data/comprehensive data.

Further, In Objective we have **data and information are generated, available and accessible to all to enable informed decisions and action** and in Target B3 **to inform the advancement of chemical safety measures and to measure progress towards reducing those impacts**, so it is closely linked, data/information is input for decisions and action.

Information and standardized methods for understanding the impact of chemicals and waste could be considered the primary focus of this target.

- It is noted that ‘informed decisions and actions’ are implicit in draft targets B2-5.

SMART target:

‘Specific:

- What data and information?
 - High-level - the impacts of chemicals and waste
 - Detail – The information on the impact of chemicals and waste as regards for burden-of-disease and cost-of-inaction estimates
- What is ‘comprehensive’?
 - Information and **standardized methods** are available
- What market?
 - The global market
- Who makes the data available?
 - Not explicit defined. Scientist and regulators, but also could be IGO, IOMC
- What ‘sufficient’ and ‘knowledge’?
 - Knowledge of chemicals, however this does not add to the more specific terms ‘data’ and ‘information’, so is removed. ‘Sufficient’ is therefore also removed (and noted to be hard to define and measure).
- Available and accessible to who?
 - The stakeholders outlined in Objectives B2-5, for the purposes outlined in those targets

Best Practice is not to include the detail in a target. A target should be short, concise and easily communicable. Alternative placements include in footnotes, supplementary guidance documents or, as in this case, in the indicator.

Interim target no.2:

By 20xx, stakeholders have put in place mechanisms to access information and standardized methods to assess, reduce and prevent health impacts at all stages of the chemical life cycle.

Or

By 20xx, stakeholders have put in place mechanisms to access information and standardized methods to assess, reduce and prevent health impacts at all stages of the chemical life cycle.

More information on the purpose and the users of the data is not needed, since these are implicit in the following targets.

Measurable:

- What is the ideal indicator? **TWG Document 4**

1. Number of globally agreed standards for collecting data on:

- Mortality
- Morbidity
- Environmental pollution
- Economic costs

2. **Indicator 8.8.3:** Mortality rate from diseases attributed to occupational risk factors, by disease, risk factor, sex, and age group. (ILO, WHO Secretariats proposal. Indicator makes use of existing official data produced almost exclusively by NSOs and already compiled by WHO and ILO.)

3. Number of governments implementing standardized data collection methods: Poison centres (example); ChemObs
4.
 - What can realistically be measured?
Number of governments implementing standardized data collection methods: Poison centres (example); ChemObs
 - What indicators already exist?
Number of globally agreed standards for collecting data on: Mortality, Morbidity, Environmental pollution, Economic costs-
Indicator 8.8.3: Mortality rate from diseases attributed to occupational risk factors, by disease, risk factor, sex, and age group. (ILO, WHO Secretariats proposal. Indicator makes use of existing official data produced almost exclusively by NSOs and already compiled by WHO and ILO.)
Number of governments implementing standardized data collection methods: Poison centres (example); ChemObs
Number of country applying standardized methods to assess the cost of inaction and the impact on the burden –of-disease
 - What is the baseline?
 - The first year of measurement of the indicator(s)
 - Is this draft target measurable?
 - Yes, for the most part.

Achievable:

- Can comprehensive data and information on chemicals on the market, throughout their lifecycle, be made available and accessible?
 - Yes!

Relevant

- Is the target relevant to the Strategic Objective?
 - The draft target wording is based on text from the Strategic Objective, so yes.
- Is the target relevant to other Strategic Objectives or targets?
 - This target relies on others B targets, the focus is on understanding the impacts of chemicals and waste based in data being made available as defined by B1.

Timebound

- What is the date by which this must be achieved?
 - To _____ be _____ determined

Proposed target B3: By 20xx, stakeholders have put in place mechanisms to access information and standardized methods to assess, reduce and prevent health impacts at all stages of the chemical life cycle.

Objective B. Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions.

Responsible agency	Activity	Output	Outcome/impact
<i>Countries (national governments) /stakeholders(industry) IGOs</i>	<i>Development and implementation of training and public awareness programmes. Also promotion of the use of safer alternatives to harmful chemicals.</i>	<i>Education, training, public awareness programmes on chemical safety and on environmentally sound and safer alternatives</i>	<i>Not specifically mentioned in targets. But impacts could be following: Workers that might be negatively affected by harmful chemicals because of their nature of work, are aware of the health risks and know how to minimize, avoid risks. Environmental and health benefits, if safer alternatives are taken into use</i>

Target B.4: [Timely information in the local language and in a format they can use] [Formal and informal] Educational, training and public awareness programmes on chemical safety and sustainability have been developed and implemented, including for [women and] vulnerable [low literate] populations, along with worker safety curricula and programmes at all levels [through all available means of communication].

Target B.5: Countries and stakeholders [and IGOs to share information and experience to] are implementing training [and sharing of information of policy support] on environmentally sound and safer alternatives, as well as on substitutions and the use of safer alternatives, [such as agroecology] [alternatives such as IPM, agroecology (as a science)].

Alternative language to merge B.4, B.5

Alt 1 merge B.4, B.5 By 20xx, governments and stakeholders have developed programmes on the training on chemical safety, sustainability and environmentally sound and safer alternatives, including for workers and vulnerable populations.

Alt 2 merge B.4, B.5 Educational, training and public awareness programmes on chemical safety, sustainability and safer alternatives have been developed and implemented, including for vulnerable populations, along with worker safety curricula and programmes at all levels.

Alt 3 merge B.4, B.5 By 20XX, Governments, industries and regulators develop and disseminate peer-reviewed educational curricula, training and risk communication initiatives relevant for all population, particularly low-literate, including safer and sustainable alternatives.

Observation: Targets B4 and B5 contribute to the objective by **generating data and information** (development of educational, training and public awareness programmes). Also targets B4 and B5 cover the **available and accessible to all to enable informed decisions and actions**, because the aim is to implement these programmes that raise awareness of vulnerable groups/workers, but also in addition and by doing that, promote environmentally sound and safer alternatives (which could be seen as **enabling informed decisions and actions**). As the aim on targets B4 and B5 is quite similar, it is reasonable to merge them into one shorter and more concise target, as suggested in the Alt versions.

The purpose of the targets B4 and B5 seem to be information sharing mostly with regards to work related/work conditions related matters. Improving the awareness and working

conditions by implementing training, educational plans etc and implementing environmentally safer alternatives.

- Targets B4 and B5 are quite detailed and long because there are very many elements that these targets can cover. But to have simpler and easily communicative targets, some elements could be in indicators etc.
- Draft targets are not time bound (except for two Alt versions), and it might be difficult to make this target time bound, as there are ongoing activities mentioned in targets.

In identifying the purpose of the target, it is important first to consider the Strategic Objective within which it sits.

B. Comprehensive and sufficient knowledge, data and information are generated, available and accessible to all to enable informed decisions and actions

Target B.4: [Timely **information** in the local language and in a format they can use] [Formal and informal] Educational, training and public awareness programmes on chemical safety and sustainability have been developed and implemented, **including for [women and] vulnerable [low literate] populations, along with worker safety curricula and programmes at all levels [through all available means of communication].**

Target B.5: Countries and stakeholders [and IGOs to share **information** and experience to] are implementing training [and sharing of information of policy support] **on environmentally sound and safer alternatives, as well as on substitutions and the use of safer alternatives, [such as agroecology] [alternatives such as IPM, agroecology (as a science)].**

Targets B4 and B5 contribute to the objective by **generating data and information** (development of educational, training and public awareness programmes, as the development of these programmes could also be seen as generating information). Also targets B4 and B5 cover the **available and accessible to all to enable informed decisions and actions**, because the aim is to implement these programmes that raise awareness of vulnerable groups/workers, but also in addition and by doing that, promote environmentally sound and safer alternatives (which could be seen as enabling informed decisions and actions).

Step 3: Make it SMART

Specific:

- What data and information?
 - *High-level- Information on educational and other training programmes*
 - *Detail: training and public awareness programmes and information on environmentally sound and safer alternatives, as well as on substitutions and the use of safer alternatives. Information that is timely and in the local language and in a format that is useable .*
- What is ‘comprehensive’?
 - *Difficult to define for targets B4-B5.*
- What market?
 - *The global market*
- Who makes the data available?
 - *industry and regulators, IGOs, NGOs*
- What ‘sufficient’ and ‘knowledge’?
 - *Knowledge on different training programmes and risks related with exposure to harmful chemicals. Difficult to define what is sufficient.*
- Available and accessible to who?
 - *Accessible to all. By all, it is meant that all the vulnerable groups (women, low literate etc) are covered.*

Interim target: *Educational, training and public awareness programmes on chemical safety, sustainability and safer alternatives have been developed and implemented at all levels.*

Measurable:

- What is the ideal indicator?
 - *Proposals from TWG Document 4:*
 - *Number of governments with strategy for chemical safety programmes*
 - *Number of countries who provide occupational safety and health training on chemical safety*
 - *Number of educational, training and public awareness programmes addressing chemical safety and chemical sustainability*
 - *SDG indicator 3.9.3 Mortality rate attributed to unintentional poisoning (as an indicator of outcome from awareness programmes)*
 - *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*
 - *Number of countries that have introduced educational programmes on green chemistry.*
- What can realistically be measured?
 - *Indicators mentioned above could be realistically measured.*
- What indicators already exist?
 - *SDG indicator 3.9.3 Mortality rate attributed to unintentional poisoning (as an indicator of outcome from awareness programmes)*
 - *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*
- What is the baseline?
 - *The first year of measurement of the indicator(s)*
- Is this draft target measurable?
 - *Yes, for the most part.*

Achievable:

- Can comprehensive data and information on chemicals on the market, throughout their lifecycle, be made available and accessible?
 - *Yes*

Relevant

- Is the target relevant to the Strategic Objective?
 - *Yes, as it covers part of the strategic objective.*
- Is the target relevant to other Strategic Objectives or targets?
 - *Yes, it is connected with B3, because information that is collected under B3 might give input for the training, educational, awareness programmes etc that are the focus of B4 and also*

connected with B2, because B5 is about promoting safer alternatives, best practices. Also educational and other programmes are similar to what B2 covers.

Timebound

- What is the date by which this must be achieved?
 - *To be determined. Much of B4 and B5 are ongoing activities.*

Proposed target B4 and B5: By 20XX educational, training and public awareness programmes on chemical safety, sustainability and safer alternatives have been developed and implemented at all levels.

Step 4- Identify 2-5 indicators per target

The Mapping Exercise of existing global and regional data and indicators that could be relevant for the Beyond 2020 Framework should guide the identification of indicators.

- *No.of governments with strategy for chemical safety programmes*
- *Number of countries who provide occupational safety and health training on chemical safety*
- *Number of educational, training and public awareness programmes addressing chemical safety and chemical sustainability*
- *SDG indicator 3.9.3 Mortality rate attributed to unintentional poisoning (as an indicator of outcome from awareness programmes)*
- *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*
- *Number of countries that have introduced educational programmes on green chemistry.*
- *Number of countries that have gone through accredited programmes that promote the concepts of environmentally sound safer alternatives.*