

UNEP's Call for Written Inputs on Issues of Concern: Priorities for further work and potential further international action

Introduction

UNEP is undertaking a consultation on priorities for further work and potential further international action on 19 Issues of concern. This call for written inputs is being conducted to gather relevant information from stakeholders and views about the next steps that should be taken on issues of concern.

The call for inputs will address 19 issues of concern and you may wish to only provide answers for issues of concern that are of relevance to your organization/ country. At the start of each section, you will be asked whether you would like to provide responses on each specific issue. If you choose "No" on the introduction page of each issue you may proceed to the next issue of concern.

Please be aware that the submitted responses will be made available on the UNEP website indicating the stakeholder affiliation/ government. The names and contact details of the respondents will not be published on the UNEP website. Further information on UNEPs consultation process can be [found here](#).

We highly recommend coordinating responses within your stakeholder affiliation/ government. Please complete this form for collecting written inputs by **15/08/2023** COB Central European time (CET).

For those using this MS word version, kindly return the completed word version of the call for written inputs. Please remember to save your work often, due to the addition of ActiveX controls below (such as option buttons and checkboxes), the autosave feature is not available on this form.

Please enter your email details.

Email:

Background

In 2020, UNEP developed an [Assessment Report on Issues of Concern](#), to inform the international community about the current situation of specific chemicals and waste issues. It was based on a review of published evidence. It was intended to support discussion at the fifth session of the UN Environment Assembly (UNEA 5) and other international forums working towards sound management of chemicals and waste. The Assessment Report assessed the ability of existing actions to address current environmental and human exposure to individual chemicals and groups of chemicals. It looked at 11 issues with emerging evidence of risks identified by the Global Chemicals Outlook-II and the 6 Emerging Policy Issues (EPIs) and two other Issues of Concern identified under the Strategic Approach to International Chemicals Management (SAICM). The report concluded that concerted international action by all stakeholders at all levels is urgently required.

GCO-II issues	SAICM Issues
1) Arsenic	1) Chemicals in products (CiP)
2) Bisphenol A (BPA)	2) Endocrine-disrupting chemicals (EDCs)
3) Cadmium	3) Environmentally Persistent Pharmaceutical Pollutants (EPPPs)
4) Glyphosate	4) Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)
5) Lead	5) Highly hazardous pesticides (HHPs)
6) Microplastics	6) Lead in paint
7) Neonicotinoids	7) Nanotechnology and manufactured nanomaterials
8) Organotins	8) Per- and polyfluoroalkyl substances (PFASs) and the transition to safer alternatives
9) Phthalates	
10) Polycyclic Aromatic Hydrocarbons (PAHs)	
11) Triclosan	

In March 2022, at UNEA 5.2, UNEP was requested through [resolution 5/7](#) to seek views from Member States and other stakeholders on priorities for further work, building on existing measures and initiatives, and on potential further international action on the issues discussed in the Assessment Report on Issues of Concern. The resolution also requests the preparation of a summary analysis, taking into account the views received.

Through this call for inputs, UNEP intends to respond to UNEA's request by gathering information from stakeholders about the priorities for future work and potential further international action. The findings from this call for written inputs will inform the writing of the Summary Analysis. The Summary Analysis is expected to build upon the [SAICM Survey](#) which considered the 8 EPIs and other issues of concern.

Available resources to support your responses:

All 19 issues of concern will be covered in this call for written inputs. A recording from an information webinar held on 27 April 2023, on the Assessment Report on Issues of Concern is [available here](#) for your reference. Further background information can be found below:

- Assessment report [here>>](#)
- Annexes [here>>](#)
- Factsheets on Issues of concern [here>>](#)
- Catalogue of International Actions on Chemicals and Waste [here>>](#)
- Survey from SAICM Sec on EPIs [here>>](#)

The form for submitting written inputs will remain open until **15/08/2023** COB Central European time (CET).

Thank you for your kind support with this consultation.



Personal Information:

Institution/Organization:

Tehran university of medical sciences

Type of Institution: *(Government| Intergovernmental Organization| Civil Society Organization| Business/Private Sector| Academia| Other)*

Academia

If relevant, please describe the membership coverage, geographical coverage and area of interest of your institution:

Environmental pollution and toxicology, innovation, middle east and Asia

Country: __IRAN_____

Questions

1. Arsenic

Screening Question - Arsenic

Arsenic is a naturally occurring metalloid that is ubiquitous in the Earth's crust. It is present in various inorganic and organic forms. Arsenic and arsenic compounds are used intentionally in wood preservatives, pesticides, animal feed additives, pharmaceuticals, glass production, alloy manufacturing, electronics, and semiconductor manufacturing.

Please visit the two-page factsheet on [Arsenic](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, e.g. Bisphenol A (BPA))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Arsenic

Arsenic is a naturally occurring metalloid that is ubiquitous in the Earth's crust. It is present in various inorganic and organic forms. Arsenic and arsenic compounds are used intentionally in wood preservatives, pesticides, animal feed additives, pharmaceuticals, glass production, alloy manufacturing, electronics, and semiconductor manufacturing.

Please visit the two-page factsheet on [Arsenic](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

- a. Please provide a brief explanation for your response*.

Arsenic is a toxic element that occurs naturally in the earth's crust and is found in many minerals. Exposure to high levels of arsenic can cause a range of health problems, including skin lesions, cancer, and cardiovascular disease.

Many countries have set standards for the maximum allowable levels of arsenic in drinking water and food to protect public health. However, in some areas, particularly in developing countries, arsenic contamination in groundwater is a significant problem.

International action to address arsenic contamination is necessary to protect public health and the environment. This may include providing access to safe drinking water sources, increasing public awareness of the risks associated with arsenic exposure, and implementing strategies to reduce arsenic contamination in the environment.

In summary, the need for further international action on arsenic contamination largely depends on the level of exposure and contamination in specific regions and populations. However, taking measures to address the issue can help reduce the risks of adverse health effects and ensure access to safe drinking water.

Arsenic contamination is a significant problem in Iran, particularly in rural areas where many people rely on groundwater as the main source of drinking water. According to a 2016 study published in the *Journal of Environmental Health Science and Engineering*, around 20 million people in Iran are at risk of exposure to arsenic-contaminated drinking water.

The Iranian government has taken some measures to address the issue, including monitoring of water sources and providing access to alternative sources of safe drinking water. However, further international action may be necessary to address the root causes of arsenic contamination and ensure that safe drinking water is accessible to all.

International organizations such as the World Health Organization and the United Nations Development Programme have collaborated with Iran to address the issue of arsenic contamination in the country. Additionally, research collaborations and knowledge-sharing platforms can help identify effective strategies to reduce arsenic contamination in Iran and other affected areas.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

There are several types of international actions that can be taken to address arsenic contamination and reduce the risks associated with exposure. Here are some examples:

1. **Developing and implementing international guidelines:** International organizations such as the World Health Organization (WHO) can develop and implement guidelines on safe levels of arsenic in drinking water and food. These guidelines can help inform national policies and regulations on arsenic contamination and ensure that the risks associated with exposure are minimized.
2. **Funding and supporting research:** International organizations can fund and support research on the sources and causes of arsenic contamination and identify effective strategies to reduce exposure. This can include developing new technologies for arsenic removal, conducting surveys to identify populations at risk, and evaluating the effectiveness of existing mitigation measures.
3. **Providing technical assistance and training:** International organizations can provide technical assistance and training to local governments and communities on how to test for arsenic contamination, identify safe drinking water sources, and implement mitigation measures. This can include training on water treatment technologies, community engagement, and health education.
4. **Advocacy and awareness-raising:** International organizations can raise awareness about the risks associated with arsenic exposure and advocate for policies and measures to reduce contamination. This can include awareness campaigns targeted at affected populations, advocacy efforts aimed at policymakers, and media outreach to raise public awareness about the issue.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible:

Addressing the issue of arsenic contamination at the international level requires a comprehensive and multi-faceted approach. Here are some measures that could be appropriate to address this issue:

Developing and implementing global guidelines: The World Health Organization (WHO) could develop and implement global guidelines on safe levels of arsenic in drinking water and food. These guidelines could be adopted by national governments and used as a basis for setting national policies and regulations.

Supporting research and development: International organizations could fund research and development to identify effective strategies for reducing arsenic contamination in groundwater and other sources of drinking water. These efforts could include research on new water treatment technologies, identification of safe water sources, and development of arsenic-resistant crops.

Providing technical assistance and capacity building: International organizations could provide technical assistance and capacity building to countries and communities affected by arsenic contamination. This could include training on water treatment technologies, community engagement, and health education.

Promoting public awareness and education: International organizations could promote public awareness and education on the risks associated with arsenic exposure and the importance of accessing safe drinking water. This could include awareness campaigns targeted at affected populations, advocacy efforts aimed at policymakers, and media outreach to raise public awareness about the issue.

Strengthening international cooperation: International cooperation and partnerships across governments, NGOs, and scientific communities can help identify effective strategies to address the issue of arsenic contamination. These partnerships can include the sharing of knowledge, resources, and expertise to develop and implement effective solutions.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible:

Lack of awareness and understanding: Many individuals and organizations may not be aware of the risks associated with arsenic exposure or the extent of the contamination problem in their region. This can prevent action and progress on addressing the issue.

Limited resources: Addressing arsenic contamination requires significant resources, including funding for research, development of mitigation measures, and implementation of solutions. Limited resources can impede progress on addressing the issue.

Political will: Political will is necessary to prioritize the issue of arsenic contamination and allocate resources to address it. In some cases, political will may be lacking, which can prevent action and progress.

Lack of coordination and collaboration: Addressing arsenic contamination requires coordination and collaboration among various stakeholders, including governments, NGOs, and communities. Lack of coordination and collaboration can lead to duplication of efforts and prevent progress.

Technical challenges: Developing effective solutions for arsenic contamination can be technically challenging, particularly in rural areas. Technical challenges can impede progress on addressing the issue.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*
there are several existing initiatives that could be replicated or scaled up at the international level to address the issue of arsenic contamination. Here are some examples:

The Bangladesh Arsenic Mitigation Water Supply Project: This project, implemented by the government of Bangladesh with support from the World Bank, aims to provide safe drinking water to millions of people affected by arsenic contamination in groundwater. The project involves the installation of deep tube wells that draw water from safe aquifers and the establishment of water treatment plants. This initiative could be replicated or scaled up in other countries affected by arsenic contamination.

The Arsenic Knowledge and Action Network (AKAN): This network, established by the International Society of Exposure Science, aims to promote knowledge-sharing and collaboration among scientists, policymakers, and affected communities to address the issue of arsenic contamination. AKAN could serve as a model for other knowledge-sharing and collaboration networks focused on addressing environmental health issues.

The Arsenic Treatment Technology Clearinghouse (ATTC): This initiative, led by the US Environmental Protection Agency, provides information on technologies for removing arsenic from drinking water. The ATTC could serve as a resource for other countries and organizations seeking to identify effective arsenic treatment technologies.

The KfW Development Bank's Arsenic Mitigation Program: This program, implemented in several countries including Nepal and Vietnam, provides funding for the installation of arsenic-safe water supply systems and the promotion of hygiene and sanitation practices. This initiative could be replicated or scaled up in other countries affected by arsenic contamination.

The Global Alliance for Clean Cookstoves: This initiative, led by the United Nations Foundation, aims to increase access to clean cookstoves and fuels to reduce household air pollution, which can be a significant source of arsenic exposure. This initiative could be scaled up to promote the use of clean cooking technologies in other countries affected by arsenic contamination.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Arsenic](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*

- ✓ *Energy*
- ✓ *Health*
- Labour*
- ✓ *Pharmaceuticals*
- ✓ *Public, private, blended finance*
- ✓ *Retail*
- Textiles*
- ✓ *Transportation*
- ✓ *Waste*
- Other:* _____

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

There are several international organizations and forums that could take the lead on international action to address the issue of arsenic contamination. Here are some examples:

The World Health Organization (WHO): WHO is a specialized agency of the United Nations responsible for global public health. WHO has previously developed guidelines on safe levels of arsenic in drinking water and food and could continue to lead efforts to develop and implement global standards for arsenic contamination.

The United Nations Environment Programme (UNEP): UNEP is another specialized agency of the United Nations that focuses on environmental issues. UNEP could lead efforts to identify effective strategies for reducing arsenic contamination in the environment and promote international cooperation to address the issue.

The International Water Association (IWA): IWA is a global network of water professionals that promotes sustainable water management. IWA could lead efforts to promote the development and implementation of effective water treatment technologies for arsenic removal and facilitate knowledge-sharing among water professionals.

The Global Alliance for Health and Pollution (GAHP): GAHP is a partnership of organizations that aims to reduce the adverse health effects of environmental pollution. GAHP could lead efforts to raise awareness about the risks associated with arsenic exposure and advocate for policies and measures to reduce contamination.

The United Nations Development Programme (UNDP): UNDP works to reduce poverty and promote sustainable development around the world. UNDP could lead efforts to provide technical assistance and capacity building to countries and communities affected by arsenic contamination.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- ✓ *Agriculture and Food*
- ✓ *Biodiversity*
- Climate Change*

- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

1. Sustainable Development Goals (SDGs): The SDGs, adopted by the United Nations in 2015, include several targets related to water and health that are directly relevant to the issue of arsenic contamination. These include SDG 3: Good Health and Well-being, which aims to ensure access to safe and affordable drinking water and sanitation for all, and SDG 6: Clean Water and Sanitation, which aims to ensure availability and sustainable management of water and sanitation for all.
2. Minamata Convention on Mercury: The Minamata Convention, adopted in 2013, is a global treaty designed to protect human health and the environment from the harmful effects of mercury. Arsenic and mercury are often found together in the environment and can have similar health effects. The Convention could serve as a platform to address the issue of arsenic contamination in affected countries.
3. World Summit on Sustainable Development: The World Summit on Sustainable Development, held in Johannesburg in 2002, recognized the importance of access to safe drinking water and sanitation as a key element of sustainable development. The Summit's outcomes could serve as a basis for addressing the issue of arsenic contamination in the context of sustainable development.
5. Paris Agreement on Climate Change: The Paris Agreement, adopted in 2015, aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels. Climate change can affect the distribution and concentration of arsenic in the environment, and addressing the issue of arsenic contamination could contribute to achieving the goals of the Paris Agreement.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

At the national level, there are several priority areas of work that could be considered to address the issue of arsenic contamination. Here are some suggestions:

Conducting arsenic surveys: Conducting surveys to identify areas and populations affected by arsenic contamination is essential to developing effective mitigation strategies. National governments could prioritize conducting widespread surveys to identify areas with high levels of arsenic contamination and populations at risk.

Developing and implementing national policies and regulations: National governments could develop and implement policies and regulations to address the issue of arsenic contamination. This could include setting standards for safe levels of arsenic in drinking water and food, and establishing regulations for the testing and treatment of contaminated water supplies.

Promoting public awareness and education: Raising public awareness about the risks associated with arsenic exposure and the importance of accessing safe drinking water is critical to addressing the issue. National governments could prioritize public awareness campaigns and education programs targeted at affected populations.

Developing and implementing mitigation measures: Developing effective mitigation measures, such as installing arsenic removal systems, providing access to safe drinking water sources, and promoting safe hygiene and sanitation practices, is essential to reducing exposure to arsenic. National governments could prioritize the development and implementation of effective mitigation measures.

Conducting research and development: National governments could support research and development to identify effective strategies for reducing arsenic contamination in groundwater and other sources of drinking water. This could include research on new water treatment technologies, identification of safe water sources, and development of arsenic-resistant crops.

10. Is there any priority further work you would like to suggest at the regional level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

At the regional level, priority areas of work to address the issue of arsenic contamination could include developing regional guidelines and standards, sharing best practices and lessons learned, developing regional research and development programs, developing regional funding mechanisms, and building regional capacity.

2. Bisphenol A (BPA)

Screening Question - Bisphenol A (BPA)

Bisphenols are a group of dozens of organic compounds that have been used as building blocks in the production of polycarbonate plastics, epoxy resins and other products since the 1960s. The variety of products include water bottles, sports equipment, medical devices, household electronics, thermal paper receipts, and food and beverage cans.

Among the bisphenols, bisphenol A (BPA) has attracted the most attention. The consumption of BPA and related products is widespread and estimated to continue to grow in the foreseeable future, driven mainly by increasing demand for polycarbonates and other plastics.

Please visit the two-page factsheet on [Bisphenol-A](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Cadmium)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Bisphenol A (BPA)

Bisphenols are a group of dozens of organic compounds that have been used as building blocks in the production of polycarbonate plastics, epoxy resins and other products since the 1960s. The variety of products include water bottles, sports equipment, medical devices, household electronics, thermal paper receipts, and food and beverage cans.

Among the bisphenols, bisphenol A (BPA) has attracted the most attention. The consumption of BPA and related products is widespread and estimated to continue to grow in the foreseeable future, driven mainly by increasing demand for polycarbonates and other plastics.

Please visit the two-page factsheet on [Bisphenol-A](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

- a. Please provide a brief explanation for your response*.

Bisphenol A (BPA) is a chemical used in the production of certain plastics and resins, and there are concerns about its potential health effects. While some countries have taken steps to restrict or ban the use of BPA in certain products, there is still a need for further international action on this issue.

Several scientific studies have suggested that exposure to BPA may be linked to a range of adverse health effects, including reproductive problems, developmental delays, and increased risk of certain cancers. BPA has also been found to have endocrine-disrupting properties, meaning that it can interfere with the normal functioning of hormones in the body.

In response to these concerns, some countries, including Canada, France, and China, have banned or restricted the use of BPA in certain products, such as baby bottles and food packaging. However, there is still a lack of consistent regulation and oversight of BPA use at the international level.

To address this issue, further international action is necessary. This could include the development of international guidelines and standards for the use of BPA in products, as well as increased research into the potential health effects of BPA exposure. International organizations, including the World Health Organization and the United Nations Environment Programme, could play a role in coordinating and facilitating international action on this issue.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

To address the issue of bisphenol A (BPA), a range of international actions could be taken, including:

Developing international guidelines and standards: Developing international guidelines and standards for the use of BPA in products can help ensure consistency and coherence in approaches to BPA regulation across different countries and regions. These guidelines and standards could be developed by international organizations, such as the World Health Organization or the United Nations Environment Programme, in collaboration with national governments and other stakeholders.

Implementing restrictions and bans: International organizations could encourage and support countries to implement restrictions or bans on the use of BPA in certain products, such as baby bottles and food packaging. This could involve providing technical assistance and capacity building to countries to help them develop and implement effective regulations.

Conducting research: International organizations could support research into the potential health effects of BPA exposure, as well as the effectiveness of different mitigation strategies. This could include funding research projects, establishing research networks, and promoting knowledge-sharing among researchers and other stakeholders.

Promoting public awareness: Raising public awareness about the potential health effects of BPA exposure and the importance of reducing exposure can help drive demand for safer products and encourage companies to adopt safer alternatives. International organizations could prioritize public awareness campaigns and education programs targeted at affected populations.

Encouraging the development of safer alternatives: International organizations could encourage the development and use of safer alternatives to BPA in products, such as alternative plastics or non-plastic materials. This could involve supporting research and development initiatives, as well as providing incentives for companies to adopt safer alternatives.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*

- ✓ *Options / guidance for economic instruments*
- ✓ *Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- ✓ *Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

To address the issue of bisphenol A (BPA) at the international level, a combination of approaches and measures would be appropriate. Here are some examples:

Regulatory approaches: Regulatory approaches could include the development of international guidelines and standards for the use of BPA in products, as well as the implementation of restrictions and bans on the use of BPA in certain products. These regulatory approaches could be developed and implemented by international organizations, such as the World Health Organization or the United Nations Environment Programme, in collaboration with national governments and other stakeholders.

Research and development: Research and development initiatives could focus on identifying safer alternatives to BPA in products, as well as on assessing the potential health effects of BPA exposure. International organizations could support research and development projects by providing funding, establishing research networks, and promoting knowledge-sharing among researchers and other stakeholders.

Public awareness and education: Public awareness and education campaigns could help raise awareness about the potential health effects of BPA exposure and encourage demand for safer products. International organizations could support public awareness campaigns and education programs targeted at affected populations, including parents, caregivers, and health professionals.

Industry engagement: Engaging with industry to encourage the use of safer alternatives to BPA in products could be an effective approach to reducing exposure. This could involve providing incentives for companies to adopt safer alternatives, as well as promoting knowledge-sharing and collaboration among companies, researchers, and other stakeholders.

International cooperation: International cooperation is essential to addressing the issue of BPA at the global level. International organizations could facilitate cooperation among different countries and stakeholders to promote the development and implementation of effective strategies for reducing exposure.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity*
- Lack of scientific knowledge*
- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*

- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible:

Factors that may prevent action or progress on addressing the issue of bisphenol A (BPA) include a lack of awareness, limited resources, industry resistance, political challenges, and scientific uncertainty. Addressing these barriers may require a combination of approaches, including increased awareness-raising, increased funding and support, engagement with industry, political advocacy, and continued scientific research.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

There are several existing initiatives that could be replicated or scaled up at the international level to address the issue of bisphenol A (BPA). Here are some examples:

Regulations and bans: Several countries, including Canada, France, and China, have implemented regulations or bans on the use of BPA in certain products, such as baby bottles and food packaging. These measures could be replicated or scaled up at the international level, with the development of international guidelines and standards for the use of BPA in products.

Industry initiatives: Some companies have taken steps to reduce or eliminate the use of BPA in their products, often in response to consumer demand for safer alternatives. These initiatives could be scaled up by encouraging more companies to adopt BPA-free alternatives and by promoting knowledge-sharing and collaboration among companies and other stakeholders.

Research networks: Several research networks have been established to study the potential health effects of BPA exposure and identify effective strategies for reducing exposure. These networks could be replicated or scaled up at the international level, with the establishment of international research networks and the promotion of knowledge-sharing among researchers and other stakeholders.

Consumer education campaigns: Public awareness campaigns and education programs targeted at consumers can help raise awareness about the potential health effects of BPA exposure and encourage demand for safer products. These initiatives could be replicated or scaled up at the international level, with the development of international public awareness campaigns and education programs.

International organizations: International organizations, including the World Health Organization and the United Nations Environment Programme, have been active in addressing the issue of BPA at the global level. These organizations could continue to play a role in promoting international cooperation and developing effective strategies for reducing exposure to BPA.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Bisphenol A](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

There are several international forums and instruments that could take the lead on international action to address the issue of bisphenol A (BPA). Here are some examples:

World Health Organization (WHO): The WHO is a specialized agency of the United Nations that is responsible for international public health. The WHO has already taken steps to address the issue of BPA, including conducting risk assessments and providing guidance on safe levels of BPA exposure. The WHO could continue to play a leading role in coordinating international action on this issue.

United Nations Environment Programme (UNEP): The UNEP is another United Nations agency that could take a leading role in addressing the issue of BPA at the international level. The UNEP has already established a Global Monitoring Plan for Persistent Organic Pollutants, which includes BPA as one of the priority pollutants. The UNEP could work to develop international guidelines and standards for the use of BPA in products, as well as support research and development initiatives.

International Agency for Research on Cancer (IARC): The IARC is an intergovernmental agency that is part of the WHO. The IARC has already identified BPA as a possible carcinogen, and could continue to play a leading role in promoting research into the potential health effects of BPA exposure.

Codex Alimentarius Commission: The Codex Alimentarius Commission is an international body established by the WHO and the Food and Agriculture Organization of the United Nations. The Commission develops international food standards, guidelines, and codes of practice, and could play a role in establishing international standards for BPA in food products.

International Conference on Chemicals Management (ICCM): The ICCM is a forum for international cooperation on chemicals management that was established under the auspices of the United Nations Environment Programme and the World Health Organization. The ICCM could work to establish international guidelines and standards for the use of BPA in products, as well as promote international cooperation and knowledge-sharing among different stakeholders.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

The issue of bisphenol A (BPA) is linked to several international agendas, including the Sustainable Development Goals (SDGs), the Minamata Convention on Mercury, the Rotterdam Convention on hazardous chemicals, and WTO agreements on technical barriers to trade and sanitary and phytosanitary measures. Addressing the issue of BPA could contribute to achieving multiple international goals related to health, environment, and economic development.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

Priority areas for further work at the national level to address the issue of bisphenol A (BPA) include research and monitoring, regulations and bans, consumer education, industry engagement, and international collaboration.

10. Is there any priority further work you would like to suggest at the regional level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

At the regional level, there are several priority areas for further work that could help address the issue of bisphenol A (BPA), including:

1. **Harmonization of regulations:** Harmonizing regulations on the use of BPA in products across different countries and regions, to avoid the creation of regulatory loopholes and promote a level playing field for businesses.
2. **Capacity building:** Building capacity at the regional level to support research and monitoring, as well as the development and implementation of effective regulations and policies.
3. **Information sharing:** Promoting information sharing and collaboration among countries and stakeholders in the region, to facilitate the exchange of knowledge and best practices.
4. **Public awareness:** Raising public awareness about the potential health effects of BPA exposure and ways to reduce exposure, through public awareness campaigns and education programs targeted at different audiences.
5. **Regional research networks:** Establishing regional research networks to study the potential health effects of BPA exposure and identify effective strategies for reducing exposure.

In summary, priority areas for further work at the regional level to address the issue of BPA include harmonizing regulations, building capacity, promoting information sharing, raising public awareness, and establishing regional research networks. By taking action in these areas, regional organizations and governments can play a critical role in reducing exposure to BPA and promoting public health.

3. Cadmium

Screening Question - Cadmium

Cadmium is a toxic metal that is naturally found in the Earth's crust, generally at low levels. Cadmium and cadmium compounds are mainly used in nickel-cadmium batteries, alloys, coatings and plating, pigments in plastics, glasses, ceramics and paints, solar cells, PVC stabilisers and others. It has been produced, used and released in large quantities, and thus intentional human uses have caused widespread, persistent contamination and exposure.

Please visit the two-page factsheet on [Cadmium](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Glyphosate)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Cadmium

Cadmium is a toxic metal that is naturally found in the Earth's crust, generally at low levels. Cadmium and cadmium compounds are mainly used in nickel-cadmium batteries, alloys, coatings and plating, pigments in plastics, glasses, ceramics and paints, solar cells, PVC stabilisers and others. It has been produced, used and released in large quantities, and thus intentional human uses have caused widespread, persistent contamination and exposure.

Please visit the two-page factsheet on [Cadmium](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
 No
 Do not know

- a. Please provide a brief explanation for your response*.

It has been determined that cadmium is a hazardous substance that can have negative impacts on human health and the environment. The International Agency for Research on Cancer (IARC) has classified cadmium as a carcinogen, and exposure to cadmium has been linked to a range of health effects, including kidney damage and bone disease.

In addition, cadmium is a persistent pollutant that can accumulate in the environment and in the food chain, posing a risk to both human and environmental health. Given these concerns, it is generally recognized that further international action is necessary to address the issue of cadmium, including measures to reduce exposure to this hazardous substance and to promote safer alternatives.

International organizations such as the World Health Organization (WHO), the United Nations Environment Programme (UNEP), and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade have already taken steps to address the issue of cadmium, including conducting risk assessments, developing guidelines and standards, and promoting international cooperation and knowledge-sharing. However, further action is needed to ensure that exposure to cadmium is minimized and that public health and the environment are protected.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
 Soft law
 Information sharing and awareness/ Voluntary initiatives
 No international actions are needed
 Other: _____.

- a. Please explain your response, including examples if possible*.

Here are some types of international actions that could be taken regarding cadmium:

Emission limits: Set emission limits for industries and activities that release cadmium into the environment, such as metal smelting, battery production, burning fossil fuels, etc. This would help reduce the amount of cadmium that enters the air, water and soil. The limits could be set through international treaties or agreements.

Trade restrictions: Place restrictions on the international trade of products that contain high levels of cadmium, such as some fertilizers. This could help reduce human and environmental exposure.

Cleanup of contaminated sites: Work together across borders to identify and remediate cadmium contamination at abandoned industrial sites and mining areas. This could involve partnerships between governments, companies and non-profits.

Monitoring and research: Establish international programs to monitor cadmium levels in the environment, food and people. Fund research on the health effects of cadmium exposure and ways to reduce those risks. Share this data and knowledge across countries.

Alternative product development: Invest in the research and development of products that do not require cadmium, especially for rechargeable batteries and electronic devices. Promote the sharing and commercialization of these alternatives globally.

Public awareness campaigns: Launch international campaigns to educate the public about the risks of cadmium exposure and ways to minimize that exposure. This could help drive demand for cleaner products and more sustainable industries.

Those are some potential international actions that could help address cadmium contamination, which tends to be a global issue due to international trade and shared ecosystems. It would likely require cooperation between governments, companies, non-profits and international organizations.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? (*Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options*).

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

- a. Please explain your response, including examples if possible:

Based on the information provided, the most appropriate approaches at the international level to address cadmium contamination would be:

1. Emission limits - Setting strict emission limits for industries that release cadmium into the environment through international treaties or agreements. This is the most direct way to reduce the amount of cadmium entering the ecosystem and exposing humans.

2. Monitoring and research - Establishing international programs to monitor cadmium levels, track human exposure and fund research on health effects. This will provide data to guide more effective policies and develop safer alternatives. The knowledge can be shared across countries.

3. Alternative product development - Investing in the research and development of products that do not require cadmium, especially rechargeable batteries. Promoting the sharing and commercialization of these alternatives globally will help phase out cadmium-based products.

4. Public awareness campaigns - Launching international campaigns to educate the public about cadmium risks and safer options. This can drive demand for cleaner products and sustainable industries.

These types of measures - regulations and limits, data sharing, technology development and public awareness - would be the most systemic and effective approaches to addressing cadmium contamination at a global scale. They leverage international cooperation and target the sources, knowledge gaps and market failures that incentivize cadmium usage.

The trade restrictions and site cleanup actions mentioned could also help but would likely have a more limited impact. Truly reducing cadmium risks requires globally coordinated efforts to transition away from cadmium-intensive industries and products.

Does this make sense? Let me know if you have any other questions.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity
- Lack of scientific knowledge
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors
- Difficulty with resource mobilisation
- Lack of economically feasible green and sustainable alternatives
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?
- None, there are no factors preventing action or progress
- Other: _____

a. Please explain your response, including examples if possible:

Some key factors that can prevent progress on addressing environmental issues are:

- Lack of political will
- Short-term thinking

- Industry resistance
- Limited resources
- Competing priorities
- Lack of public demand
- Fragmented authority
- Knowledge gaps
- International dependence

Overcoming these obstacles requires:

- Improving awareness
- Building political will
- Engaging stakeholders
- Increasing resources
- Coordinating efforts

The specific barriers your country or organization faces likely involve some combination of these challenges.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Some initiatives that could be scaled up internationally to address cadmium contamination include:

- The EU RoHS directive, which restricts toxic substances in electronics. An international framework could help phase out cadmium from products globally.
- OECD's Stewardship of Chemicals program, which could be expanded to more countries to reduce cadmium usage.
- UNEP's Global Mercury Partnership, which could serve as a model for an international cadmium partnership to promote alternatives.
- Canada's cadmium standard for fertilizers. An international standard could reduce cadmium contamination from fertilizer use.
- The EPA's risk evaluation program. An international program could assess and manage cadmium risks on a global scale.

Scaling and expanding these initiatives to an international level, with wide participation, could significantly advance progress to reduce cadmium contamination and risks.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Cadmium](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on the nature of the issue, two international forums that would be well placed to take the lead on international action to address cadmium contamination are:

1. The United Nations Environment Programme (UNEP):

- UNEP's mandate is to coordinate environmental activities within the UN system and provide leadership on emerging environmental issues.
- UNEP has expertise in chemical management, pollution prevention and health risks from toxins
- UNEP could convene governments, industries and other stakeholders to develop an international strategy and action plan to phase down cadmium usage and mitigate risks.
- UNEP already has partnerships and initiatives focused on reducing risks from toxic substances, which could serve as a model for a cadmium-specific program.

2. The Organization for Economic Co-operation and Development (OECD):

- The OECD brings together many of the world's most developed economies, which represent the major sources and users of cadmium.
- The OECD has a track record of developing policy instruments, best practice guidelines and standards to promote chemical safety and sustainability.
- Through its existing committees and programs focused on chemicals management, the OECD could develop recommendations for cadmium emission limits, safer alternatives, product standards and policy reform.
- OECD member countries could then implement appropriate policies and actions at the national level to reduce cadmium usage and environmental loading.

So in my view, UNEP and the OECD would be the international forums best positioned to develop an overarching global strategy, build consensus around recommended actions and coordinate collaborative responses to address cadmium contamination at its source. Let me know if you have any other questions!

- a. Which international agendas have important linkages with this issue of concern?
(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

- Agriculture and Food
- Biodiversity
- Climate Change
- Health
- Human Rights
- Sustainable Consumption and Production
- World of Work
- Other: _____

- b. Please explain your response, including examples if possible. (Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

A few international agendas that have important linkages with the issue of cadmium contamination include:

- The 2030 Agenda for Sustainable Development - Specifically SDG 12 on ensuring sustainable consumption and production patterns, and SDG 3 on ensuring health and wellbeing. Reducing cadmium usage in products and the environment contributes to these goals.
- The Minamata Convention on Mercury - Though focused on mercury, this international treaty sets an important precedent for international action on phasing out toxic substances and promoting best practices. It could serve as a model for addressing cadmium risks.
- The Basel Convention on hazardous waste - Cadmium contamination at industrial and mining sites falls within the scope of this treaty, though the Basel Convention currently does not focus specifically on cadmium. It could potentially be expanded to do so.
- The Stockholm Convention on Persistent Organic Pollutants - Like the Basel Convention, this treaty focuses on chemical threats to human health and the environment. While cadmium is an inorganic substance, a similar framework could help enable progress in reducing cadmium pollution.
- International goals for a circular economy - By transitioning away from cadmium-intensive products and industrial processes, we move towards reusing materials more sustainably and efficiently, in line with a circular economy. Curbing cadmium contamination thus supports these broader goals.

Those are some of the main international agendas that are linked to the issue of cadmium contamination and the potential actions needed to address it. Addressing cadmium risks would support and reinforce progress towards sustainable consumption, chemical safety, hazardous waste management, and transitioning to a more circular global economy.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for further work at the national level to help address cadmium contamination:

1. Conduct a national risk assessment to determine the main sources of human and environmental exposure to cadmium within the country. This will identify priority areas for action.
2. Set national emission limits or standards for industries that release cadmium, such as manufacturing plants, power plants, waste incinerators, and mining operations. These standards should be informed by the risk assessment.
3. Invest in researching and developing cadmium-free alternatives for products where it is currently used, like rechargeable batteries, plastic stabilizers, and pigments. Incentivize the uptake and commercialization of these alternatives.
4. Launch public awareness campaigns to educate the public about cadmium risks and ways to reduce exposure. This can help build support for stronger regulations and help drive demand for safer alternatives.
5. Develop a national action plan or roadmap for phasing down the use of cadmium and transitioning to safer alternatives, particularly in high-priority sectors identified in the risk assessment. The plan should involve stakeholders and set measurable targets.
6. Work in collaboration with international organizations, other countries, and the private sector to share knowledge, best practices and technologies that can accelerate progress towards reducing cadmium contamination and exposure.

Those are some suggested priorities to get national action underway to address cadmium contamination risks. The focus should be on assessing and understanding the problem within the country, setting appropriate emission limits and standards, investing in research and development of alternatives, raising public awareness, and developing a coordinated national plan of action in collaboration with relevant stakeholders.

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for further work at the regional level to help address cadmium contamination:

1. Conduct a joint risk assessment across the region to identify transboundary sources of cadmium pollution and human exposure risks. This can reveal opportunities for coordinated action.
2. Develop harmonized emission standards and limits for cadmium releases that all countries in the region can adopt. This will ensure a level playing field and prevent industries from relocating to countries with weaker standards.
3. Create a regional research fund to support the development of cadmium-free alternatives for products and applications common across the region. Share the results and new technologies among all participating countries.
4. Launch joint public awareness campaigns and educational initiatives to inform people about cadmium risks and safer options. This can have a greater impact and build momentum for stronger policies.
5. Implement regional monitoring programs to track cadmium levels in the environment, food and people. Share the data and insights with all participating countries. This can help identify emerging threats and the effectiveness of actions taken.
6. Negotiate regional or bilateral agreements to reduce cadmium usage, phase out high-risk products, set common trade standards, and restrict the import of high-cadmium products from outside the region.
7. Provide financial and technical support to less developed countries within the region to build capacity for managing cadmium contamination, including remediating contaminated sites.

Working together at the regional level will enable countries to tackle cadmium contamination more effectively by pooling resources, knowledge, technology and expertise. A coordinated regional approach can complement and reinforce national actions to truly make progress on reducing risks.

4. Glyphosate

Screening Question - Glyphosate

Glyphosate is an organophosphorus herbicide for agricultural, forestry and residential weed control that kills or suppresses all plant types, with the exception of those genetically modified to be tolerant to it. Since its introduction in 1974, glyphosate has become the most widely used herbicide worldwide. The largest use of glyphosate has been in agriculture, however glyphosate use in urban settings can also be a significant source of contamination.

Please visit the two-page factsheet on [Glyphosate](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Lead)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Glyphosate is an organophosphorus herbicide for agricultural, forestry and residential weed control that kills or suppresses all plant types, with the exception of those genetically modified to be tolerant to it. Since its introduction in 1974, glyphosate has become the most widely used herbicide worldwide. The largest use of glyphosate has been in agriculture, however glyphosate use in urban settings can also be a significant source of contamination.

Please visit the two-page factsheet on [Glyphosate](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
 No
 Do not know

- a. Please provide a brief explanation for your response*.

Based on the information provided, I agree that further international action may be necessary to address potential risks from glyphosate. Some of the key reasons are:

- Disagreement among scientific studies: There are conflicting studies on the health risks of glyphosate, especially regarding carcinogenicity. This highlights the need for more robust and consensus-based research to truly understand the risks.
- Disagreement among regulatory bodies: Different countries and regulatory agencies have come to different conclusions about glyphosate's safety, with some banning or restricting it and others continuing to approve it. This lack of consistency suggests a need for a more harmonized, evidence-based international approach.
- Potential transboundary impacts: Glyphosate is widely used around the world. If it does pose significant risks, both environmental and human health risks could span national boundaries. Coordinated international action may be needed to effectively manage any global risks.
- Uncertainty around long-term impacts: While short-term toxicity has been studied reasonably well, there are knowledge gaps around glyphosate's potential for chronic, low-dose or synergistic effects. More research and monitoring at an international level could help clarify these longer-term risks.
- Limitations of national actions in isolation: Individual country bans may have limited impact given the global trade in glyphosate and glyphosate-resistant crops. Broader international measures may be needed to truly reduce risks, if warranted.

So in summary, while the current evidence is mixed, the disagreement among studies and regulators, potential for transboundary impacts, and uncertainties around long-term effects suggest that further international action - in the form of coordinated research, risk assessment, and risk management - could help create a more precautionary, evidence-based approach to

glyphosate. This, in turn, could clarify appropriate use and restrictions of the chemical, if needed.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

- a. Please explain your response, including examples if possible*.

Some potential international actions regarding glyphosate include:

- Additional research
- Joint risk assessment
- Harmonized use restrictions
- Alternatives assessment
- Monitoring programs
- Market incentives
- Public information

These actions - depending on further research findings - could help manage glyphosate risks in an evidence-based, coordinated manner if appropriate and necessary.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

- a. Please explain your response, including examples if possible

Based on the current uncertainties regarding glyphosate's risks, I think the most appropriate measures at the international level would be:

1. Additional research - Funding and coordinating further research to clarify uncertainties about glyphosate's potential health and environmental impacts. This should include long-term and low-dose effects, as well as synergistic effects when combined with other chemicals.
2. A joint risk assessment - Conducting a comprehensive review and analysis of glyphosate's hazards and risks based on the best available evidence. This assessment should be transparent, science-based and involve independent experts.
3. International monitoring programs - Establishing coordinated programs to track glyphosate levels in things like food, water and humans. Sharing this monitoring data could provide insights into exposures and the effectiveness of risk management measures.

Only after there is greater clarity around glyphosate's actual risks - based on robust research and risk assessment - would more restrictively approaches like harmonized use restrictions or market incentives potentially be warranted.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

- a. Please explain your response, including examples if possible:

Without knowing the specific context in your country or organization, here are some factors that generally prevent progress on addressing issues like glyphosate risks:

- **Economic dependence:** If glyphosate is widely used in agriculture, it may be seen as crucial to maintain agricultural productivity and profitability. Transitioning away from it could be viewed as too economically disruptive.

- **Limited alternatives:** There may be a lack of viable and affordable alternatives to glyphosate for certain applications. Transitioning would require significant investments in research and development of new technologies.

- **Industry influence:** Companies that produce and sell glyphosate may lobby government agencies and policymakers against stronger regulations through political donations, advertising, and lobbying

- **Competing priorities:** Other social, economic or agricultural issues may be seen as higher priorities that demand more resources and policy attention.
- **Insufficient evidence:** There may be a view that the current evidence does not conclusively prove that glyphosate poses serious risks, leading decision-makers to defer stronger actions.
- **Short-term thinking:** There may be a focus on maintaining immediate economic benefits and agricultural productivity, rather than also considering potential long-term risks from glyphosate exposure.
- **Complexity of the issue:** Glyphosate risks involve complex scientific questions that many decision-makers do not have the expertise to fully evaluate, making them hesitant to support restrictive actions.
- **Lack of public demand:** If the general public is not pushing for restrictions on glyphosate, there may be little impetus for policymakers to prioritize the issue.

Those are some of the common factors that can inhibit progress on complex issues like managing potential risks from glyphosate. The specific obstacles your country or organization faces likely involve some combination of these economic, political, technical and social challenges.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Here are some existing initiatives regarding glyphosate that could be replicated or scaled up at the international level:

- The European Food Safety Authority recently completed a risk assessment of glyphosate and set an acceptable daily intake level. An international body could conduct a joint risk assessment to set harmonized exposure guidelines.
- Health Canada has established monitoring programs to track glyphosate residues in food, water and human urine. Similar international monitoring programs could provide a more comprehensive view of global exposures.
- Some countries have instituted limits on the concentration of glyphosate in certain products or restricted its use in some public areas. Harmonized restrictions through an international agreement could ensure a more consistent approach.
- The European Commission is providing funding for research on alternatives to glyphosate for weed control. Increased, coordinated research at an international level could accelerate the development of safer replacements.
- Some regions and organizations have launched public information campaigns to communicate the facts about glyphosate in an unbiased manner. A global communication effort could help improve understanding and trust regarding glyphosate risks.
- Groups like the OECD and IPCS have published reports evaluating glyphosate's hazards and risks. An international body could routinely conduct updated assessments to identify new areas of concern and guide appropriate actions.

So in essence, existing national and regional initiatives demonstrate feasible approaches for jointly assessing and communicating risks, restricting usage, funding alternatives research, and monitoring exposures that could potentially be scaled up and coordinated at a global level. Doing so could help clarify and then manage any actual risks posed by glyphosate in a cohesive, evidence-based manner.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Glyphosate](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

1. The World Health Organization (WHO) - As the lead global health authority, WHO has the expertise to objectively assess the human health risks of glyphosate exposure. It could coordinate a joint risk assessment involving independent experts, set appropriate exposure guidelines, and recommend risk management measures.

2. The Food and Agriculture Organization (FAO) - As a specialized UN agency focusing on food and agriculture, FAO has the expertise to weigh the agricultural benefits of glyphosate against any potential risks. It could convene discussions with stakeholders, evaluate alternative pest control methods, and recommend appropriate restrictions or best practices, if needed.

These two UN organizations complement each other well due to their respective mandates and areas of focus - human health for WHO and sustainable agriculture for FAO. Together, they could coordinate actions such as:

- Conducting a joint risk assessment
- Publishing exposure guidelines
- Funding and sharing research on alternatives

- Establishing and collaborating on international monitoring programs
- Developing recommendations for risk management strategies

WHO and FAO could then work with other entities - like the OECD, IPCS, and international research bodies - to implement programs to clarify and then responsibly manage any actual risks posed by glyphosate, while minimizing disruptions to agriculture.

- a. Which international agendas have important linkages with this issue of concern?
(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Issues related to glyphosate risks are linked to several international agendas:

- SDGs - Linked to goals for zero hunger, health & wellbeing
- Aichi Biodiversity Targets - Glyphosate impacts on species & ecosystems
- International Code of Conduct on Pesticide Management
- Paris Agreement - Glyphosate impacts food security & agriculture's footprint
- Sustainable agriculture and food security agendas
- International chemical safety agendas

Addressing glyphosate risks in an evidence-based manner would reinforce progress across these agendas for sustainable development, public health, biodiversity and responsible chemical use.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

Some key national priorities regarding glyphosate include:

- Fund additional research
- Conduct a national risk assessment
- Set appropriate exposure limits
- Invest in alternatives
- Provide support for safer use
- Restrict usage selectively, if needed
- Improve transparency

The focus should be on:

- Gaining a clearer understanding of local risks
- Ensuring safe exposure
- Investing in alternatives where feasible
- Supporting safer use practices
- Restricting usage only where significant risks exist and alternatives are available

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Regional priorities regarding glyphosate should include:

- Conduct a joint risk assessment
- Harmonize exposure guidelines
- Establish shared monitoring systems
- Fund collaborative research on alternatives
- Adopt harmonized restrictions, if needed
- Provide technical support to less developed countries
- Conduct joint communication

This regional approach can:

- Provide a more holistic risk assessment
- Develop alternatives more efficiently
- Build capacity in less developed countries
- Impose restrictions more selectively
- Complement national actions

5. Lead

Screening Question - Lead

Lead is a toxic metal that occurs naturally in the Earth's crust. It may exist in both inorganic and organic forms. The current global uses of lead are in batteries, rolled and extruded products, pigments and other product additives (e.g. for paints, cathode ray tubes, enamels and ceramics, PVC stabilisers), ammunition, alloys, cable sheathing and other uses

Please visit the two-page factsheet on [Lead](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Microplastics)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Lead

Lead is a toxic metal that occurs naturally in the Earth's crust. It may exist in both inorganic and organic forms. The current global uses of lead are in batteries, rolled and extruded products, pigments and other product additives (e.g. for paints, cathode ray tubes, enamels and ceramics, PVC stabilisers), ammunition, alloys, cable sheathing and other uses

Please visit the two-page factsheet on [Lead](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*.

Yes, I agree that further international action is likely necessary to address the risks from lead. Some of the key reasons are:

- **Persistence in the environment:** Lead persists for decades or centuries in soil, water and sediment once released. This means international coordination is needed to effectively reduce environmental lead levels over time.
- **Transboundary pollution:** Lead pollution does not respect national boundaries. Atmospheric transport of lead particles, international trade in lead-containing products and materials, and migratory animals all contribute to transboundary spread of lead contamination.
- **Limited national effectiveness:** Individual country actions to restrict lead use and exposures have had only limited success due to continuing global trade in lead. Broader international measures are needed to truly reduce risks.
- **Disproportionate impacts:** Developing countries and vulnerable populations tend to be most exposed to lead and least able to mitigate risks on their own. International support and action is needed to reduce lead exposures equitably.
- **Slow phase out:** Despite decades of effort, lead remains widely used in products and processes. Stronger international policy measures may be required to faster phase out high-risk uses of lead.
- **Knowledge gaps:** Better data and research are needed on topics like non-neurological health effects, synergistic effects, and remediation technologies to guide more effective interventions. This requires international coordination and funding.

- Complex supply chains: Most nations rely on imported products and materials that contain lead. Broad international agreements are needed to reshape global supply chains and incentivize lead-free alternatives.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

- Harmonized product standards: Setting internationally agreed limits on the permissible levels of lead in products like paint, gasoline, plumbing materials, consumer electronics, toys and jewelry. This would reduce lead loading from these sources.

- International funding: Providing financial and technical support to developing countries and vulnerable communities to monitor lead hazards, restrict exposures, remediate contaminated sites, and transition away from lead-intensive industries.

- Emission restrictions: Imposing internationally agreed limits on industrial and combustion sources of lead emissions like mining operations, waste incinerators, and coal-fired power plants.

- Research coordination: Pooling resources and expertise to address knowledge gaps on topics like non-neurological health effects of lead, synergistic effects with other chemicals, and remediation technologies.

- Alternatives assessment: Evaluating the availability, feasibility and affordability of lead-free alternatives for high-risk uses of lead and identifying areas where more research and development is needed.

- Public awareness campaigns: Launching global communication efforts to raise awareness about lead hazards and toxicities, especially among vulnerable populations. This can help reduce exposures.

- Supply chain transformations: Implementing economic incentives and regulations that reshape global supply chains to phase out high-risk uses of lead and scale up lead-free products and materials.

International agreements, funding mechanisms, research initiatives, best practice guidance, and reporting requirements would likely need to accompany these actions in order to be truly effective in reducing risks from lead on a global scale

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- ✓ *Regulatory control measures*
- ✓ *Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- ✓ *Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- ✓ *Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible:

Based on lead's persistence, global spread, and complex supply chains, I believe the most effective approach to addressing lead risks at the international level would involve:

1. A binding treaty or convention - This would set enforceable limits on lead concentrations in products, require countries to implement emission restrictions and exposure reduction programs, mandate reporting and data sharing, and provide funding and support mechanisms.
2. Harmonized product standards - Stringent, agreed limits on lead in key materials and products traded globally would be a centerpiece of the treaty. This would help phase out lead at the source and reshape supply chains.
3. International funding mechanisms - The treaty would need to establish funds to support research, monitoring, remediation and transition programs for developing countries and vulnerable populations.
4. Mandatory monitoring and reporting - The convention would obligate all member countries to monitor lead levels, share that data, and report regularly on progress made toward exposure reduction goals.
5. Phase out timelines - The agreement would set time-bound targets for phasing out high-risk uses of lead and transitioning to safer alternatives, particularly in developing economies.

A binding, global framework with enforceable provisions is likely needed given lead's persistence and complex, international supply chains. Voluntary measures and guidance alone would be insufficient. Harmonized product standards, funding support, data transparency and strict timelines - coupled with appropriate flexibility - would form the central pillars of such an international convention on lead pollution.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*

- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible:

Common factors that can prevent progress on addressing lead risks include:

- Economic dependence on lead industries
- Cost of alternatives
- Industry lobbying
- Competing priorities
- Insufficient evidence of significant local risks
- Complexity of the issue
- Lack of public demand
- Bureaucracy

Specific obstacles your country or organization faces likely involve a combination of economic, technical and political challenges.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Here are some existing initiatives on lead that could potentially be replicated or scaled up internationally:

- The European Union's Restriction of Hazardous Substances (RoHS) directive - This imposes strict limits on the concentration of lead and other toxic substances in electronics sold in the EU. An international equivalent could help phase out lead in products globally.
- The U.S. Environmental Protection Agency's (EPA) lead renovation, repair and painting (RRP) rule - This rule sets requirements to reduce lead exposures from renovation and repair activities. A global RRP program could help minimize this significant source of lead exposure.
- Canada's lead-free fuel standard - Canada was the first country to fully eliminate lead from gasoline. An international phase out of leaded fuel could significantly reduce atmospheric lead levels.
- The Global Alliance to Eliminate Lead Paint - This public-private partnership aims to eliminate lead paint globally by 2020. Expanding its scope and funding could help accelerate progress.
- WHO's blood lead intervention level - WHO recommends a maximum blood lead level of 5 µg/dL in children. Setting and enforcing an equivalent global target could help reduce children's lead exposures.

- The OECD's chemical safety programs - The OECD has extensive expertise in chemicals management that could form the basis of an international effort to phase out high-risk uses of lead.

- Industry foundation programs - Initiatives by foundations like the CDC Foundation and Pure Earth demonstrate feasible models for supporting remediation and transition efforts that could operate at a larger scale.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Lead](#) for more information on the topic. If you select "Other", please elaborate your response).*

Agriculture and food production

Construction

Electronics

Energy

Health

Labour

Pharmaceuticals

Public, private, blended finance

Retail

Textiles

Transportation

Waste

Other: _____

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on the widespread risks from lead and the need for a globally coordinated approach, either the United Nations Environment Programme (UNEP) or the World Health Organization (WHO) would be best placed to take the lead on international action to address lead pollution:

- UNEP - As the UN body focused on environmental issues, UNEP has the expertise and mandate to facilitate international agreements to phase out environmentally harmful substances like lead. UNEP could convene governments, industries and other stakeholders to develop a comprehensive global strategy for reducing and mitigating lead risks.

- WHO - As the lead international health agency, WHO has expertise in the health effects of toxic substances and can objectively assess the human harm caused by lead exposure. WHO could coordinate a joint risk assessment, recommend exposure limits, and propose policy measures to reduce lead risks, particularly for vulnerable populations.

Both UNEP and WHO working together would be even more effective, combining UNEP's focus on environmental management with WHO's focus on human health. They could:

- Conduct a joint risk assessment
- Recommend exposure limits
- Fund research on non-neurological effects, alternatives, etc.
- Set product standards
- Establish monitoring and reporting systems
- Provide financial and technical support to at-risk regions and populations
- Catalyze an international agreement or convention on lead

With UNEP taking the lead on measures to restrict and phase out uses of lead, and WHO focusing on mitigating exposure risks and impacts, these complementary mandates could enable a truly comprehensive, health-centered approach to reducing global lead pollution and its consequences.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Addressing risks from lead is linked to several important international agendas, including:

- The 2030 Sustainable Development Goals (SDGs) - Particularly SDG 3 on health and wellbeing, SDG 6 on clean water and sanitation, SDG 11 on sustainable cities and communities, and SDG 12 on responsible consumption and production. Reducing lead risks contributes to achieving these goals.
- The Minamata and Basel Conventions - These international treaties aim to reduce pollution from toxic substances and properly manage hazardous wastes. A similar framework could help phase out high-risk uses of lead.
- The Strategic Approach to International Chemicals Management (SAICM) - This plan seeks to achieve the sound management of chemicals throughout their lifecycles. Its objectives relate closely to properly managing lead pollution risks.

- Agendas to transition to a circular economy - Shifting away from highly toxic materials like lead is an important part of transitioning to a more sustainable, circular flow of resources.
- International goals for sustainable cities - Exposures to contaminants like lead in urban environments are a barrier to achieving goals for healthy, resilient cities. Reducing these risks thus supports such objectives.
- Public health initiatives - Call to actions like the UN's Every Woman Every Child initiative highlight the importance of reducing environmental health risks like lead exposure that disproportionately impact women and children.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some suggested priorities for further work at the national level to help address risks from lead:

1. Conduct a national risk assessment - Review available data and research to determine the major sources of human exposure to lead within the country and which populations are most vulnerable. This will identify high priority areas for action.
2. Set national emission limits and product standards - Based on the risk assessment, establish legally binding limits on industrial emissions of lead and maximum allowable concentrations of lead in consumer products, paints, fuels, etc. Enforce these standards rigorously.
3. Transition away from lead-based industry - Provide financial and technical support to help industries like lead battery manufacturing, mining and smelting transition to more sustainable, lead-free models. This may require government incentives and regulation.
4. Invest in R&D of alternatives - Provide funding and incentives for research into lead-free alternatives that are affordable, effective and safe, especially for current high-volume uses like rechargeable batteries and fuel additives.
5. Improve monitoring and reporting - Strengthen national programs to regularly monitor lead levels in the environment, food, consumer products and vulnerable populations like children. Publicly report the data to inform decision making and build public trust.
6. Launch public awareness campaigns - Educate the public through multimedia campaigns about lead hazards, symptoms of exposure, and ways to reduce risks, focusing on at-risk communities. This can motivate demand for stronger policies and safer products.

7. Develop a national lead action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and responsibilities for reducing and mitigating lead risks within the country.
10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for work at the regional level to help address risks from lead:

1. Conduct a joint risk assessment - Pool resources and data to determine the major sources of lead exposures across the entire region, including understudied impacts like non-neurological health effects.
2. Set harmonized emission limits - Agree on common, stringent limits for industrial emissions of lead that all countries in the region can adopt. This will ensure a level playing field and discourage polluting industries.
3. Fund collaborative research - Create a regional research fund to support development of lead-free alternatives for high-volume uses of lead and applications common in the region. Share the results among participating countries.
4. Adopt harmonized product standards - Negotiate common limits for the concentration of lead in products like paint, gasoline, consumer goods, toys and jewelry. This consistency will help reshape supply chains.
5. Launch joint awareness campaigns - Implement regional public information initiatives to communicate the hazards of lead exposure and ways to reduce risks. This can have a greater impact and build momentum for policy change.
6. Provide support to less developed countries - Offer financial and technical assistance to help build capacity for implementing lead safety programs, enforcing standards, remediating contaminated sites, and transitioning away from lead-intensive industries.
7. Negotiate regional agreements - Forge agreements that phase out particular uses of lead, require monitoring and reporting, restrict import of high-lead products, and provide funding for research, remediation and transition assistance.

6. Microplastics

Screening Question - Microplastics

Microplastics are solid particles made of synthetic polymers, typically defined as smaller than 5 mm. Microplastics have been intentionally added to a wide range of products and application areas for diverse technical functions. For example, they are added in cosmetics and personal care products, detergents and maintenance products, agriculture and horticulture, medical devices and in vitro diagnostic medical devices, medicinal products for human and veterinary use, food supplements, paints, coatings and inks, oil and gas drilling and production, plastics, technical ceramics, media for abrasive blasting, adhesives, 3D printing materials and printing inks.

Please visit the two-page factsheet on [Microplastics](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Neonicotinoids)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Microplastics

Microplastics are solid particles made of synthetic polymers, typically defined as smaller than 5 mm. Microplastics have been intentionally added to a wide range of products and application areas for diverse technical functions. For example, they are added in cosmetics and personal care products, detergents and maintenance products, agriculture and horticulture, medical devices and in vitro diagnostic medical devices, medicinal products for human and veterinary use, food supplements, paints, coatings and inks, oil and gas drilling and production, plastics, technical ceramics, media for abrasive blasting, adhesives, 3D printing materials and printing inks.

Please visit the two-page factsheet on [Microplastics](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*.

Further international action on microplastics is likely needed due to:

- Ubiquity globally
- Significant data gaps
- Unclear impacts
- Limited effectiveness of isolated national actions
- Disproportionate impacts on developing nations
- Complex, global supply chains
- Transboundary pollution

An international response could more effectively:

- Fund research to address data gaps
- Determine actual risks
- Reshape supply chains
- Support actions in developing countries
- Reduce cross-border pollution
- Manage risks in an equitable manner

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible.

Potential international actions to help address risks from microplastics could include:

- Coordinated research and monitoring - Funding and pooling expertise to determine microplastic sources, characterize risks at different sizes and from mixtures, study ecosystem and human health impacts, track trends, and identify emission 'hotspots'.
- Joint risk assessments - Conducting comprehensive reviews of microplastic hazards and exposures to determine if/when they likely pose significant risks requiring management.
- Best practice guidelines - Developing recommended measures for industries to minimize microplastic releases from products and processes based on current knowledge of best available techniques.
- Emission limits - Setting internationally agreed restrictive limits on microplastic releases from key sources like textile manufacturing, personal care products, and plastic production.
- Alternatives assessments - Examining the feasibility, costs and risks of alternative materials, designs and production processes that minimize microplastic generation.
- Market-based incentives - Creating economic policies that reward the development/use of microplastic-free alternatives and penalize products/materials with high microplastic generation potential.
- Information sharing - Establishing mechanisms for countries and industries to communicate research findings, progress in implementing best practices, and challenges encountered. This can accelerate collective progress.
- Public awareness campaigns - Launching global communication initiatives to educate the public about microplastic sources, exposure risks and ways to reduce/prevent pollution.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- ✓ *Regulatory control measures*
- ✓ *Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- ✓ *Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible:

Based on the current uncertainties regarding microplastics' risks, I believe the most appropriate initial measures at the international level would be:

1. Coordinated research - Collaboratively fund further research to clarify key unknowns about microplastic sources, environmental fate, exposure pathways, hazard properties, and potential health impacts. This should utilize expertise across disciplines and regions.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of microplastic exposures and hazards based on the best available evidence from around the world. These assessments should be transparent, science-based, and involve independent experts.
3. Harmonized monitoring programs - Establish consistent global protocols to track trends in microplastic pollution across different environmental compartments and regions. Share this monitoring data to gain a more complete picture of exposures and hotspots.
4. Information sharing platforms - Create mechanisms for countries, organizations and industries to communicate research findings, emerging issues, challenges, and best practices for minimizing microplastic pollution. This can accelerate collective progress.
5. Guidelines on best practices - Develop recommended techniques and measures for industries to minimize microplastic generation and releases based on current knowledge and available technologies.

Only after there is greater clarity regarding microplastics' actual risks - based on robust research and risk assessment - would more restrictive approaches potentially be warranted. For now, the focus should be on increasing knowledge through international collaboration.

In summary, the most important initial steps at the international level would be funding further research, conducting joint risk assessments, establishing harmonized monitoring, facilitating information sharing, and developing best practice guidelines. These evidence-based measures can help determine the true extent of any risks posed by microplastics and inform appropriate actions from there.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity
- Lack of scientific knowledge
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors
- Difficulty with resource mobilisation
- Lack of economically feasible green and sustainable alternatives
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?
- None, there are no factors preventing action or progress
- Other: _____

a. Please explain your response, including examples if possible:

Without knowing the specific context in your country or organization, some common factors that can inhibit progress in addressing microplastic pollution include:

- **Economic costs:** Reducing microplastic generation may require changes to processes and products that introduce costs for businesses and consumers. Organizations or countries with limited resources may be unable or unwilling to make these investments.
- **Limited data:** There are still significant knowledge gaps regarding the sources, exposures, fate, and actual risks of microplastics, especially for certain size fractions. This lack of definitive evidence can delay actions seen as 'precautionary'.
- **Industry influence:** Companies that produce and use plastics may resist or delay regulations through lobbying, funding of research, and advertising campaigns emphasizing benefits of plastic. This influence can impede policy changes.
- **Competing priorities:** Other environmental, social or economic issues may be seen as higher priorities that demand more resources and policy attention.
- **Complexity of the issue:** Microplastics involve complex pathways and interactions that many decision-makers do not have the expertise to fully evaluate, making them hesitant to support restrictive actions.
- **Lack of public demand:** Without widespread public awareness of and concern about microplastic risks, there may be little impetus for policymakers to prioritize the issue.
- **Bureaucracy:** Responsibility for managing microplastics may fall under the purview of multiple government agencies with different priorities, timelines and budgets, complicating coordinated action.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

- The European Commission's restrictions on microplastics in certain products like personal care products, tyres and artificial turf. Similar restrictions could be implemented globally through an international agreement.
- Monitoring programs like those run by NOAA in the U.S. and the Environmental Agency in the UK. Establishing harmonized global monitoring protocols and sharing results could provide a more comprehensive view of microplastic pollution.
- Research funding and coordination initiatives like the UK's Centre for Ecology and Hydrology programme on microplastics. Increased, coordinated research at an international scale could help address key knowledge gaps.
- Industry best practice guidelines developed by groups like the World Economic Forum and the BRS Convention. Broader adoption and harmonization of these guidelines could help minimize microplastic releases.
- Alternatives assessments conducted by organizations like the OECD and the Plastics Solution Fund. A large-scale, global assessment of microplastic-free alternatives could help shift supply chains.
- Public awareness campaigns launched in places like Canada, Australia and the European Union. A coordinated, global communication effort could help accelerate progress towards reducing microplastic pollution.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Microplastics](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? (*Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...*).

Based on the global and environmental aspects of microplastics, either:

- UNEP - As the UN body focused on environmental issues, UNEP has a mandate to facilitate international agreements to mitigate problems like microplastics.
- UNCLOS - Already addresses land-based marine pollution, which includes microplastics.

Both working together would be most effective, combining:

- UNEP's environmental expertise and convening power
- UNCLOS' legal framework for ocean governance

They could then:

- Fund further research
- Conduct risk assessments
- Establish monitoring programs
- Set best practice guidelines
- Propose emission limits
- Negotiate amendments to UNCLOS
- Support developing nations
- Catalyze an international agreement

With UNEP coordinating across all environments and UNCLOS focusing on marine impacts, this complementary approach could enable a comprehensive international response.

- a. Which international agendas have important linkages with this issue of concern? (*Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

Addressing microplastic pollution links to:

- SDG 12 on responsible consumption/production
- SDG 14 on life below water
- The Paris Climate Agreement - Optimizing plastic use supports climate objectives
- The UN Ocean Decade - Reducing microplastics is crucial to reversing ocean decline
- International chemicals agreements - Plastics are chemicals of concern
- Agendas for sustainable cities- Reducing microplastic risks supports healthy city goals
- Public health initiatives- Microplastics may pose human health risks

Addressing microplastics would support:

- Sustainability
- Decarbonization
- Ocean conservation
- Chemicals management
- Urban resilience
- Public health goals

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct a national assessment - Review available data to determine major sources of microplastic pollution within the country, which products, industries and materials use the most plastic, and which environments and populations face the highest exposures.

Set emission limits - Based on the national assessment, establish legally binding limits on industrial discharges and microplastic losses from key sources like wastewater treatment plants, textile manufacturers, etc. Proactively enforce these standards.

Implement best practices - Provide support, incentives and guidance for industries to implement measures that minimize generation of microplastics at the source, such as optimized filtration processes, closed-loop systems, and material reuse.

Invest in alternatives - Provide funding and incentives for research into microplastic-free alternatives that are cost-effective, sustainable, and safe substitutes for current high-volume plastic uses.

Improve monitoring and transparency - Strengthen national programs to regularly monitor microplastic levels in the environment, food and consumer products. Publicly report the data to inform decision making and build public trust.

Educate the public - Launch national awareness campaigns about microplastic sources, risks, and ways to reduce plastic use through reuse, repair and product choices. This can motivate demand for sustainable solutions.

Develop a national action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for minimizing microplastic generation and pollution within the country.

Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Priorities at a regional level could include:

- Conduct a joint risk assessment
- Harmonize monitoring programs
- Fund collaborative research
- Adopt harmonized best practices
- Set harmonized emission limits
- Provide technical support to least developed countries
- Foster information exchange

Regional cooperation would facilitate:

- Information sharing
- Coordinated monitoring
- Joint research
- Knowledge dissemination
- Capacity building
- Negotiated agreements

Complementing and reinforcing national actions to manage microplastic risks.

7. Neonicotinoids

Screening Question - Neonicotinoids

Neonicotinoids are a class of neuroactive insecticides chemically related to nicotine. Since the first neonicotinoid (imidacloprid) was commercialized in the 1990s, seven main compounds (acetamiprid, clothianidin, dinotefuran, imidacloprid, nitenpyram, thiamethoxam and thiacloprid) are now available on the global market. Today, neonicotinoids are used in protecting plants, livestock and pets from pest insects, as well as for malaria vector control, i.e., mosquitos, to protect humans, in more than 100 countries. Neonicotinoids are also used as biocides.

Please visit the two-page factsheet on [Neonicotinoids](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Organotins)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Neonicotinoids are a class of neuroactive insecticides chemically related to nicotine. Since the first neonicotinoid (imidacloprid) was commercialized in the 1990s, seven main compounds (acetamiprid, clothianidin, dinotefuran, imidacloprid, nitenpyram, thiamethoxam and thiacloprid) are now available on the global market. Today, neonicotinoids are used in protecting plants, livestock and pets from pest insects, as well as for malaria vector control, i.e., mosquitos, to protect humans, in more than 100 countries. Neonicotinoids are also used as biocides.

Please visit the two-page factsheet on [Neonicotinoids](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*.

I agree that further international action is likely necessary to address risks from neonicotinoid insecticides:

- Persistence and mobility: Neonics are highly persistent and mobile, contaminating soil and water sources for years. This requires coordinated global mitigation efforts.
- Transboundary spread: Neonics contaminate surface and groundwater, migrating across national borders. Collaborative management is needed.
- Limited effectiveness of isolated actions: Individual country bans have had little impact due to continued use elsewhere, demonstrating a need for broader international restrictions.
- Disproportionate impacts: Developing nations with limited resources rely on neonics but struggle to mitigate risks. International support is needed.
- Uncertainty about impacts: While evidence suggests neonics harm pollinators and aquatic species, significant data gaps remain. More research is required to inform effective interventions.
- Complex supply chains: Most nations import crops and products treated with neonics. Global agreements are needed to reshape supply chains.
- Slow adoption of alternatives: Alternative pest control methods exist but have been slow to gain adoption. Stronger international policies may be required.

In summary, given neonics' persistence, mobility, transboundary spread, limited effectiveness of isolated national actions, disproportionate impacts, uncertain risks, complex supply chains and slow alternative adoption, further international coordination and agreements seem warranted to characterize, manage and mitigate their risks in an equitable manner.

Areas for international action could include:

- Coordinated monitoring and research
- Joint risk assessments
- Harmonized product standards
- Restrictions on highest-risk uses
- Alternatives funding and incentives
- Technical support for at-risk regions
- Public awareness campaigns

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

- Joint risk assessments
- Harmonized product standards
- Restrictions on highest-risk uses
- Alternatives funding and incentives
- Technical support for at-risk regions
- Public awareness campaigns

This would require:

- Coordinated monitoring
- Comprehensive risk assessments
- Consistent product standards
- Targeted restrictions
- Funding for alternatives
- Capacity building in developing regions
- Public communication

Supported by international agreements and funding to effectively manage neonics risks on a global scale.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

1. Coordinated monitoring and research - Collaboratively fund and implement harmonized programs to close key data gaps related to neonic residues, exposures, transport pathways, and effects on pollinators and other species. This should utilize expertise across regions.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of neonic hazards and exposures based on the best available evidence from around the world. These assessments should be science-based, transparent, and involve independent experts.
3. Harmonized product standards - Establish consistent, restrictive limits on the concentration of neonics allowed in treated seeds and plant protection products traded globally. This consistency can help phase them out of supply chains.
4. Alternatives funding and incentives - Provide support for research into safer, more sustainable pest management techniques. Fund initiatives to accelerate the commercialization and adoption of viable alternatives.
5. Information sharing platforms - Create mechanisms for countries, organizations and industries to communicate research findings, emerging issues, challenges and case studies of alternatives that work. This knowledge exchange can help accelerate progress.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*

- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible:

Factors that can prevent action on neonics:

- Economic dependence on neonics
- Higher short-term costs of alternatives
- Industry lobbying
- Competing priorities
- Lack of definitive evidence
- Limited expertise evaluating issues
- Bureaucracy

Specific obstacles likely include:

- Economic dependencies
- Political influence
- Technical challenges
- Resource constraints

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Existing initiatives regarding neonics that could be scaled up internationally:

- National/regional restrictions - demonstrate feasible approaches that could be broadly implemented
- Monitoring programs - Establishing harmonized global monitoring could improve understanding
- Research funding initiatives- Increased, coordinated research could address gaps
- Alternatives programs - A global effort could help transition supply chains

- Guidelines and certifications - Harmonization and broader adoption could minimize risks
- Public awareness campaigns - A coordinated, global effort could accelerate progress

These national initiatives demonstrate approaches that could be:

- Scaled up
- Harmonized
- Broadly implemented

Through international agreements and collaborations. This could help:

- Address uncertainties
- Effectively manage neonic risks on a global scale

6. Which sectors/value chains need to be closely involved in developing solutions? (*Multi-choice. Please visit the two-page factsheet on [Neonicotinoids](#) for more information on the topic. If you select "Other", please elaborate your response*).

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? (*Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...*).

Based on the aspects of agricultural production, pesticide usage, and risks to biodiversity, either the UN Food and Agriculture Organization (FAO) or the UN Convention on Biological Diversity (CBD) would be best placed to take the lead on international action to address neonics:

- FAO - As the UN body focused on food, agriculture and rural development, FAO has expertise in agricultural production systems and pest management. FAO could convene governments, farmers and agricultural industries to develop guidelines for sustainable, reduced-risk pest control strategies that minimize neonics usage.

- CBD - As the overarching treaty focused on biodiversity conservation, CBD has a mandate to address risks posed by pesticides and other chemical pollutants. CBD already addresses invasive alien species and sustainable use of components of biodiversity, both relevant to neonics impacts.

Both FAO and CBD working together would likely be most effective, combining FAO's focus on agricultural productivity and economics with CBD's focus on ecological impacts and species protection. Together they could:

- Fund research on impacts and alternatives
- Conduct joint risk assessments
- Recommend pest management guidelines
- Propose product standards
- Establish monitoring programs
- Provide technical support to farmers
- Negotiate amendments to CBD regarding pesticide risks
- Catalyze an international strategy on sustainable pest control

With FAO focusing on practices and agricultural systems and CBD concentrating on impacts to biodiversity, these complementary mandates could enable a truly comprehensive, sustainable approach to minimizing neonics pollution and associated risks.

- a. Which international agendas have important linkages with this issue of concern?
(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Issues regarding neonics link to several agendas:

- Sustainable Development Goals
- Specifically:
 - SDG 2 on zero hunger
 - SDG 3 on health

- SDG 12 on responsible consumption/production
- SDG 15 on life on land
- The Strategic Approach to International Chemicals Management
- The UN Convention on Biological Diversity
- Agendas for sustainable food systems
- Public health initiatives

Addressing neonics risks would support:

- Sustainability
- Chemicals management
- Biodiversity
- Sustainable food production
- Public health goals

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for further work at the national level to help address risks from neonicotinoid pesticides:

1. Conduct a national risk assessment - Review available data to determine major sources of neonic exposure within the country, which crops use the most neonics, and which environments and populations face the highest risks.
2. Restrict highest-risk uses - Based on the risk assessment, impose targeted bans on uses of neonics found to pose the greatest risks to pollinators and other non-target species. Allow continued use for essential crop protections where alternatives do not exist.
3. Invest in alternative pest control methods - Provide research funding and incentives for farmers to adopt integrated pest management practices, biopesticides, pheromone traps, and other non-chemical techniques that reduce reliance on neonics.
4. Strengthen product regulation - Ensure that neonics-treated seeds and plant protection products sold within the country meet strict safety standards that minimize off-target impacts. Proactively enforce these standards.

5. Improve transparency - Require manufacturers to publicly report the volume and uses of neonics sold within the country. Regularly publish government monitoring data to build public trust.
6. Educate farmers - Provide information, guidelines and training to help agricultural producers minimize neonic usage through integrated pest management, optimizing application timing/rates, and adopting resistant crop varieties where available.
7. Develop a national action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for gradually transitioning away from reliance on neonics, while maintaining agricultural productivity.

10. Is there any priority further work you would like to suggest at the regional level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

- research to assess which crops, regions and environments within the region face the greatest exposure risks from neonics. Identify major emission sources and exposure pathways.
- Harmonize monitoring programs - Establish consistent protocols and data sharing mechanisms for monitoring neonic residues in soil, water and agricultural products across the entire region.
- Fund collaborative research on alternatives - Provide regional funding for research into integrated pest management techniques, biological controls, and other sustainable farming practices that can reduce neonic usage across the region's agricultural systems.
- Adopt harmonized standards - Negotiate and implement consistent limits on the concentration of neonics allowed in seeds and plant protection products traded within the region.
- Develop best practice guidelines - Create recommended measures for farmers to minimize neonic usage through techniques like optimizing application rates and timing based on current knowledge.
- Provide technical support - Offer financial and technical assistance to least developed countries within the region to strengthen capacity for assessing risks, adopting alternatives, and complying with regulatory standards.
- Foster information exchange - Create platforms for stakeholders across the region to share research findings, case studies of effective practices, challenges encountered and lessons learned to accelerate progress together.

8. Organotins

Screening Question - Organotins

Organotins are organic compounds that contain at least one tin-carbon bond. There are four main groups of organotin compounds, which are used in various applications. Mono- and di-organotins are mainly used as heat stabilisers in polyvinyl chloride (PVC) in a wide range of applications, including window frames and house siding, PVC pipes, food contact blister packs and water bottles. Tri-organotins are mainly used as biocides (e.g. in wood preservatives, in anti-fouling paints for boats and in textiles) and as pesticides. Tetra-organotins have been used as intermediates in the preparation of other organotins and as oil stabilisers.

Please visit the two-page factsheet on [Organotins](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Phthalates)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Organotins are organic compounds that contain at least one tin-carbon bond. There are four main groups of organotin compounds, which are used in various applications. Mono- and di-organotins are mainly used as heat stabilisers in polyvinyl chloride (PVC) in a wide range of applications, including window frames and house siding, PVC pipes, food contact blister packs and water bottles. Tri-organotins are mainly used as biocides (e.g. in wood preservatives, in anti-fouling paints for boats and in textiles) and as pesticides. Tetra-organotins have been used as intermediates in the preparation of other organotins and as oil stabilisers.

Please visit the two-page factsheet on [Organotins](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*.

I agree that further international action is likely warranted to address risks from organotin compounds:

- **Persistence and Bioaccumulation:** Organotins are highly persistent and prone to bioaccumulate in organisms and the food chain. This requires coordinated global mitigation efforts.
- **Transboundary Spread:** Organotins contaminate water and migrate across national borders through trade and the biosphere. Collaborative management is needed.
- **Limited Effectiveness of Isolated Actions:** While some countries have banned certain organotin uses, this has had limited impact due to continued usage elsewhere. Broader restrictions may be needed.
- **Disproportionate Impacts:** Developing nations that rely on organotins lack the resources to fully mitigate risks. International support is required.
- **Complex Supply Chains:** Most nations import products containing organotins. Global agreements are needed to reshape supply chains.
- **Slow Alternative Adoption:** While non-organotin alternatives exist, they have been slow to gain widespread adoption. Stronger international policies may be required.

- Data Gaps Remain: There are still uncertainties regarding organotins' effects at low exposure levels and in combinations. More coordinated research is needed.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

Actions regarding organotins could include:

- Coordinated monitoring and research
- Joint risk assessments
- Global product bans
- Alternatives funding and incentives
- Technical support for developing countries
- Public awareness campaigns
- Amendments to international agreements

This would require:

- Coordinated monitoring
- Comprehensive risk assessments
- Global product bans
- Funding for alternatives
- Capacity building
- Public communication
- Updates to treaties

To effectively reduce risks from organotins on a global scale, prioritizing sources posing greatest risks to health and ecosystems

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Based on current uncertainties regarding organotins' impacts and available alternatives, I believe the most appropriate initial measures at the international level would be:

1. Coordinated monitoring and research - Collaboratively fund and implement harmonized programs to characterize levels, sources and transport pathways of organotins in the environment. This should utilize expertise from regions where organotins have been most widely used.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of organotin hazards and exposures based on the best available evidence from around the world. These assessments should be science-based, transparent, and involve independent experts.
3. Global product bans - Prohibit the use of organotins in materials and products traded internationally, beginning with bans on their use in antifouling paints and other marine applications where risks are greatest and safer alternatives exist.
4. Alternatives funding and incentives - Provide support for research into safer alternatives to organotin compounds, particularly for marine applications. Fund initiatives to accelerate commercialization and adoption of viable substitutes.
5. Information sharing platforms - Create mechanisms for countries, organizations and industries to communicate research findings, emerging issues, challenges and case studies of effective alternatives. This knowledge exchange can help accelerate progress.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*

- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible:

Factors that can inhibit action on organotins:

- Economic dependence on organotins
- Higher short-term costs of alternatives
- Industry lobbying
- Competing priorities
- Lack of definitive evidence
- Limited expertise evaluating issues
- Bureaucracy

Specific obstacles likely include a mix of:

- Economic dependencies
- Political influence
- Technical challenges
- Resource constraints

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

- Restrictions on organotin applications - The EU's bans on organotins in anti-fouling paints and other uses demonstrate feasible approaches that could be implemented through an international agreement.
- Monitoring programs - Countries like Norway, France and the UK track organotin levels in seafood and the marine environment. Harmonizing monitoring globally could improve understanding of risks.
- Research funding initiatives - The EU, US and Canada fund research on organotin exposures, effects and alternatives. Increased, coordinated research could address key uncertainties.

- Alternatives programs - Efforts to accelerate the development and commercialization of non-organotin marine coatings and wood preservatives could help minimize organotin usage.
- Certification schemes - Programs like green labels for organotin-free marine products encourage best practices. Harmonization and broader adoption of guidelines could minimize exposures.
- Public information campaigns - Campaigns aimed at ports, marinas and shipyards could share safer work practices and information on non-toxic alternatives to organotins.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Organotins](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

- IMO - As the UN specialized agency for shipping, the IMO has expertise in marine protection and vessel source pollution. The IMO could convene governments, ship owners and marine coating companies to develop best practices and standards to minimize organotin usage.

- London Convention - As the overarching treaty governing dumping at sea, the London Convention has provisions regarding pollution from ships that could be applied to organotins. Organotin discharges from antifouling paints already fall under its purview.

Both IMO and London Convention working together would likely be most effective, combining IMO's expertise in shipping and marine operations with London Convention's legal framework for ocean pollution control. Together they could:

- Fund research on impacts and alternatives
- Conduct joint risk assessments
- Recommend best practices
- Propose product standards
- Establish monitoring programs
- Provide technical support to shipping fleets
- Negotiate amendments regarding organotin discharges
- Catalyze an international strategy to phase out organotin coatings

With IMO focusing on shipping practices and London Convention concentrating on marine pollution, these complementary mandates could enable a comprehensive, sustainable approach to minimizing organotin usage and associated risks.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- The Sustainable Development Goals (SDGs) - Particularly SDG 3 on health and wellbeing, SDG 12 on responsible consumption and production, SDG 14 on life below water, and SDG 15 on life on land. Reducing organotin impacts contributes to these goals.
- The Strategic Approach to International Chemicals Management (SAICM) - This framework seeks to achieve sound management of chemicals throughout their life cycle. Organotin pollution risks closely relate to its objectives.
- The UN Convention on Biological Diversity (CBD) - The CBD addresses threats posed by toxic chemicals, making organotin alternatives assessments and mitigation of risks highly relevant to its mission.
- Agendas for a blue economy - Transitioning away from organotin coatings, preservatives and other products is an important part of moving to sustainable and healthy ocean industries.

• International marine and fisheries initiatives - Calls for sustainably managed and conserved oceans require minimizing pollution from marine sources including organotins from vessel paints and other applications.

8. What priority level do you attach to this issue for international action?

- Very high
- High
- Medium
- Low
- Very low

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct a national risk assessment - Review available data to determine major sources of organotin exposure within the country, including which industries use organotins the most and which environments face the highest risks.

Restrict highest-risk uses - Based on the risk assessment, impose targeted bans on organotin uses found to pose the greatest risks to human health and the environment, particularly marine uses.

Invest in safer alternatives - Provide funding and incentives for the development of non-organotin alternatives for coatings, wood preservatives and other products currently containing organotins.

Strengthen product regulation - Ensure that organotin-containing products sold within the country meet strict safety standards that minimize risks. Proactively enforce these standards and impose penalties for non-compliance.

Improve transparency - Require manufacturers to publicly disclose the volume and uses of organotins produced and sold within the country. Regularly publish government monitoring data to build public trust.

Educate industries - Provide guidelines, best practices and training to help industries transition away from organotin usage through adoption of safer alternatives where possible.

Develop a national action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for gradually phasing out organotins and transitioning to non-toxic alternatives, particularly for marine applications.

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Priorities at a regional level could include:

- Conduct a joint risk assessment
- Harmonize monitoring programs
- Fund collaborative research on alternatives
- Adopt harmonized standards
- Develop best practice guidelines
- Provide technical support to least developed countries
- Foster information exchange

Regional cooperation would facilitate:

- Information sharing
- Coordinated monitoring
- Joint research
- Knowledge dissemination
- Capacity building
- Negotiated agreements

9. Phthalates

Screening Question - Phthalates

Phthalates are a large family of semi-volatile organic compounds. They are a group of plasticizers with softening and elastic effects, and they are produced in high volumes to be used in products such as vinyl flooring, adhesives, detergents, lubricating oils, automotive plastics, plastic clothing and personal care products. Phthalates accounted for 65 per cent of global consumption of plasticizers in 2017.

Please visit the two-page factsheet on [Phthalates](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Polycyclic Aromatic Hydrocarbons (PAHs))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Phthalates are a large family of semi-volatile organic compounds. They are a group of plasticizers with softening and elastic effects, and they are produced in high volumes to be used in products such as vinyl flooring, adhesives, detergents, lubricating oils, automotive plastics, plastic clothing and personal care products. Phthalates accounted for 65 per cent of global consumption of plasticizers in 2017.

Please visit the two-page factsheet on [Phthalates](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*. _

I agree that further international action is likely needed to adequately address risks from phthalates:

- Persistence and mobility: Some phthalates are highly persistent in the environment and can contaminate soil, water and air, spreading across borders. Coordinated action is needed.
- Disproportionate impacts: Developing nations with limited resources rely heavily on phthalated products but struggle to mitigate risks. International support is warranted.
- Uncertainty about impacts: While evidence suggests many phthalates may harm human health and the environment, significant data gaps remain. More research is required to inform effective interventions.
- Complex supply chains: Most nations import consumer products and building materials containing phthalates. Global agreements are needed to reshape supply chains.
- Slow adoption of alternatives: Alternative plasticizers exist but have been slow to gain adoption due to costs and performance concerns. Stronger international policies may be required.
- Inadequacy of isolated actions: Individual country restrictions have had limited impact due to continued use and exposures elsewhere. Broader international strategies are needed.

In summary, given phthalates' persistence, disproportionate impacts, uncertain risks, complex supply chains, slow alternative adoption and inadequacy of isolated actions, further

international coordination and agreements seem warranted to responsibly manage and mitigate their risks in an equitable manner.

Areas for international action could include:

- Coordinated monitoring and research
- Joint risk assessments
- Restrictions on highest-risk uses
- Alternatives funding and incentives
- Harmonized product standards
- Public awareness campaigns
- Technical support for at-risk regions

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

Potential actions at the international level to address risks from phthalates could include:

- Coordinated monitoring and research - Funding and pooling expertise to measure phthalate residues in humans, the environment and consumer products. This would clarify exposures and trends over time.
- Joint risk assessments - Conducting comprehensive reviews of phthalate hazards and exposures to determine if/when they likely pose significant risks requiring management. These assessments should consider impacts on both human health and the environment.
- Restrictions on highest-risk uses - Imposing targeted bans on uses of phthalates found to pose the greatest risks to human health and the environment based on the best available science and risk assessments.
- Alternatives funding and incentives - Providing resources to research, develop and commercialize safer alternative plasticizers to accelerate their adoption as phthalates are phased out. This may require government support.
- Harmonized product standards - Setting internationally agreed limits on the concentration of phthalates allowed in consumer products and building materials traded across borders. This consistency can reshape supply chains.

- Public awareness campaigns - Communicating scientific information about phthalate exposure risks and ways to reduce usage through material substitutions and safer alternatives.
- Technical support for at-risk regions - Offering assistance to help least developed countries strengthen capacity for regulating phthalates, evaluating alternatives, and transitioning away from phthalate-reliant industries.

Coordinated monitoring, risk assessment, restrictions, research funding, standard setting, public communication and technical support would likely all need to be supported by international agreements in order to be truly effective in responsibly managing phthalate pollution on a global scale.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible:

1. Coordinated monitoring and research - Collaboratively fund and implement harmonized programs to measure phthalate exposures in humans and the environment. This should utilize expertise from regions with the most phthalate use.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of phthalate hazards and exposures based on the best available evidence from around the world. These assessments should be science-based, transparent and involve independent experts.
3. Restrictions on highest-risk uses - Impose targeted bans on uses of phthalates found to pose the greatest risks to human health and the environment based on risk assessments and exposure potential. Begin with restrictions on uses in products for children, pregnant women and other vulnerable groups.
4. Alternatives funding and incentives - Provide support for research into safer alternative plasticizers and initiatives to accelerate adoption of viable substitutes, particularly for uses in products aimed at sensitive populations.
5. Information sharing platforms - Create mechanisms for countries, organizations and industries to communicate research findings, challenges and case studies of phthalate substitutes that work. This knowledge exchange can help accelerate progress.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity
- Lack of scientific knowledge
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors
- Difficulty with resource mobilisation
- Lack of economically feasible green and sustainable alternatives
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?
- None, there are no factors preventing action or progress
- Other: _____

a. Please explain your response, including examples if possible: _____

There are several potential factors that could prevent action or limit progress in addressing phthalates within your country or organization:

- **Economic reliance:** Your country or sector may depend heavily on phthalate-containing products like plastic goods, toys, cosmetics and detergents. Transitioning away from phthalates would be challenging economically.
- **Cost of alternatives:** Safer phthalate substitutes can be more expensive in the short term due to higher R&D costs and lack of economies of scale. This can delay their adoption.
- **Limited expertise:** Many governments and organizations lack sufficient in-house knowledge and expertise to properly evaluate complex issues related to phthalates and alternatives.
- **Lobbying:** Chemical companies that produce or use phthalates may exert political influence through active lobbying and resistance to regulation.
- **Competing priorities:** Your country or organization may face more pressing issues that demand more attention and resources.
- **Lack of definitive evidence:** Significant uncertainties remain regarding potential health harms from phthalates, particularly at low exposure levels. This can stall policy changes seen as 'precautionary'.
- **Bureaucracy:** Responsibility for regulating phthalates may fall under multiple departments with different objectives, timelines and budgets, complicating coordinated action.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? (Open space answer. Please share a weblink to the initiative(s) if available).

Here are some existing initiatives regarding phthalates that could potentially be replicated or scaled up internationally:

- Product restrictions - The EU's bans on certain phthalates in toys and childcare products demonstrate feasible approaches that could be implemented through an international agreement.
- Monitoring programs - Countries like Germany, Canada and the US currently track phthalate levels in the environment, consumer goods and humans. Harmonizing monitoring globally could improve understanding of exposures.
- Alternatives programs - Efforts to accelerate the adoption of non-phthalate plasticizers in supply chains could help minimize product reformulations. Harmonized initiatives across multiple nations could have a greater impact.
- Research funding initiatives - The EU, US, Japan and others fund research on safer phthalate substitutes and human health impacts. Increased, coordinated research at an international scale could address key uncertainties and inform effective interventions.
- Guidelines and certifications - Schemes that certify products as 'PVC-free' or 'phthalate-free' encourage best practices. Harmonization and broader adoption of such guidelines could accelerate transitions away from phthalates.
- Public awareness campaigns - Campaigns aimed at consumers and product manufacturers to educate about phthalate hazards and alternatives. A coordinated, global effort could accelerate progress.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Phthalates](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on the aspects of consumer product safety, chemical pollution and risks to human health, either the World Health Organization (WHO) or the Strategic Approach to International Chemicals Management (SAICM) would be best placed to take the lead on international action to address phthalates:

- WHO - As the UN agency focused on global public health, WHO has expertise regarding chemical exposures and human health risks. WHO could convene governments, product manufacturers and chemical industries to develop guidelines and standards for safer plasticizers that minimize phthalate exposures and risks.
- SAICM - As the overarching framework to foster sound management of chemicals, SAICM has a mandate to address risks posed by chemical pollutants. Phthalates already fall within its purview.

Both WHO and SAICM working together would likely be most effective, combining WHO's specific focus on human health risks with SAICM's comprehensive approach to chemicals management. Together they could:

- Fund research on impacts and alternatives
- Conduct joint risk assessments
- Recommend product standards
- Establish monitoring programs
- Provide technical support to industries
- Negotiate amendments to SAICM regarding phthalate risks
- Catalyze an international strategy to phase out high-risk phthalate uses

With WHO focusing on human health impacts and SAICM concentrating on a life cycle approach to chemical pollution, these complementary mandates could enable a truly comprehensive, sustainable approach to minimizing phthalate exposures and associated human health risks.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

The Sustainable Development Goals (SDGs) - Particularly SDG 3 on health and wellbeing, SDG 6 on clean water and sanitation, SDG 11 on sustainable cities, SDG 12 on responsible consumption and production, and SDG 15 on life on land and below water. Reducing phthalate impacts contributes to achieving these goals.

- The Strategic Approach to International Chemicals Management (SAICM) - This overarching framework seeks to achieve sound management of chemicals including plasticizers like phthalates throughout their life cycles. Phthalate pollution risks directly relate to SAICM's objectives.

- Initiatives for healthy materials - Efforts to transition to non-toxic building materials, consumer products and textiles are increasingly emphasizing the need to phase out hazardous plasticizers like phthalates.

- Public health agendas - Calls to action like the WHO's triple billion goals highlight the need to ensure safe water, sanitation and hygiene for all - requiring reductions in exposures to chemical pollutants like phthalates from consumer products.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Priorities at the national level:

- Conduct risk assessments
- Restrict highest-risk uses - start with children's products
- Invest in alternatives
- Strengthen product regulation
- Improve transparency
- Educate industries
- Develop a national action plan with:
 - Risk assessments

- Restrictions focused on children
- Investment in alternatives
- Strong product standards
- Transparency
- Industry guidelines
- Quantifiable goals

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available*).

Priorities at the regional level:

- Conduct joint risk assessments
- Harmonize monitoring programs
- Fund collaborative alternatives research
- Adopt harmonized standards
- Develop best practice guidelines
- Provide technical support to LDCs
- Foster information exchange

Regional cooperation would facilitate:

- Information sharing
- Coordinated monitoring
- Joint research
- Knowledge dissemination
- Capacity building
- Negotiated agreements

Complementing and reinforcing national actions to manage phthalate risks.

10. Polycyclic Aromatic Hydrocarbons (PAHs)

Screening Question - Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic aromatic hydrocarbons (PAHs) are a class of more than 100 organic compounds. They occur naturally in coal and crude oil, but are also formed as a by-product during the incomplete combustion from both natural (e.g. volcanic eruptions, burning of coal, oil and gas) or anthropogenic (e.g. vehicle emissions, industrial processes, food preparation) sources. PAHs may also be present in consumer products (e.g. plastic components, footwear); however, they are never intentionally added during manufacturing. Plant-based foods may contain PAHs as a result of pollutant deposition before harvest.

Please visit the two-page factsheet on [Polycyclic Aromatic Hydrocarbons](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Triclosan)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic aromatic hydrocarbons (PAHs) are a class of more than 100 organic compounds. They occur naturally in coal and crude oil, but are also formed as a by-product during the incomplete combustion from both natural (e.g. volcanic eruptions, burning of coal, oil and gas) or anthropogenic (e.g. vehicle emissions, industrial processes, food preparation) sources. PAHs may also be present in consumer products (e.g. plastic components, footwear); however, they are never intentionally added during manufacturing. Plant-based foods may contain PAHs as a result of pollutant deposition before harvest.

Please visit the two-page factsheet on [Polycyclic Aromatic Hydrocarbons](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
 No
 Do not know

- a. Please provide a brief explanation for your response*. _____

I do agree that further international action is likely needed to adequately address risks from polycyclic aromatic hydrocarbons (PAHs):

- Persistence and mobility: PAHs are highly persistent in the environment and can contaminate soil, water and air, spreading across borders. Coordinated action is needed.
- Disproportionate impacts: Developing nations with limited resources rely heavily on PAH-emitting industries like coal power but struggle to mitigate risks. International support is warranted.
- Uncertainty about impacts: While evidence suggests some PAHs may harm human health and the environment, significant data gaps remain. More research is required to inform effective interventions.
- Complex supply chains: Most nations import fossil fuels that emit PAHs during combustion. Global agreements are needed to reshape energy and transportation systems.
- Lagging adoption of alternatives: Alternatives to PAH-emitting energy sources exist but have been slow to gain adoption due to costs and infrastructural concerns. Stronger international policies may be required.

• Inadequacy of isolated actions: Individual country restrictions have had limited impact due to continued PAH exposures from global combustion sources. Broader international strategies are needed.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*. _____

Potential international actions:

- Coordinated monitoring and research
- Joint risk assessments
- Restrictions on highest-risk sources
- Alternatives funding and incentives
- Public awareness campaigns
- Technical support for at-risk regions

This requires:

- Exposure assessments
- Risk evaluations
- Targeted limits
- Funding for cleaner energy
- Public communication
- Capacity building

To effectively manage PAH pollution through:

- Exposure data
- Identifying key risks

- Limiting highest risk sources
- Incentivizing alternatives
- Sharing information
- Supporting vulnerable countries

Collaboration via international agreements.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

1. Coordinated monitoring and research - Fund and implement harmonized programs to measure PAH exposures in humans and the environment. This should utilize expertise from regions with the highest PAH emissions.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of PAH hazards and exposures based on the best available evidence from around the world. These assessments should be transparent and involve independent experts.
3. Restrictions on highest-risk sources - Impose targeted limits on sources of PAH emissions found to pose the greatest risks based on risk assessments, prioritizing sectors with the cleanest and most viable alternatives.
4. Alternatives funding and incentives - Provide support for deployment of cleaner energy sources and technologies that minimize PAH emissions, particularly for sectors identified as highest-risk sources.
5. Information sharing platforms - Create mechanisms for countries, organizations and industries to share research findings, challenges and case studies of cleaner alternatives that effectively minimize PAH generation. This knowledge exchange can accelerate progress.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*

- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Several potential factors could limit progress in addressing PAHs within your country or organization:

- **Economic reliance:** Your country or sector may depend heavily on PAH-emitting industries like coal power, steel production or transportation. Transitioning away from these would be challenging economically.
- **Cost of alternatives:** Cleaner energy sources and technologies that minimize PAH emissions can be more expensive in the short term. This can delay their adoption.
- **Limited expertise:** Many countries and organizations lack sufficient knowledge and expertise to properly evaluate complex issues related to PAHs and alternatives.
- **Lobbying:** Fossil fuel and other PAH-emitting industries may exert political influence through lobbying and resistance to regulation.
- **Competing priorities:** Your country or organization may face more immediate issues that demand more attention and resources.
- **Lack of definitive evidence:** Significant uncertainties remain regarding harms from PAHs, especially at typical exposure levels. This can stall policy changes seen as 'precautionary'.
- **Bureaucracy:** Responsibility for managing PAH emissions may fall under multiple departments with different objectives, budgets and timelines, complicating coordinated action.

The obstacles your country or organization faces likely involve a mix of these common factors, including economic dependencies, political influences, technical challenges, resource constraints and institutional barriers. More details about your specific context would help identify the primary barriers inhibiting progress.

But in general, economic reliance, costs of alternatives, lobbying, bureaucracy and a lack of definitive evidence appear to be inhibiting progress on managing PAHs both nationally and internationally.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Restrictions on emissions - Some countries have set limits on PAH emissions from power plants, industries and vehicles. Harmonizing and tightening standards globally could accelerate reduction in emissions.

- Monitoring programs - Several nations currently track PAH contamination in the environment, food and humans. Coordinating monitoring on a larger scale could improve risk assessments.
- Research funding initiatives - The EU, US, China and others fund research on cleaner combustion technologies and PAH health impacts. Increased, coordinated research could resolve key uncertainties.
- Renewable energy targets - Many countries have set targets for transitioning to solar and wind power. Harmonizing and raising these targets across more nations could accelerate the transition away from PAH-emitting fossil fuels.
- Climate change mitigation efforts - Actions to decarbonize energy systems and electrify transportation under the Paris Agreement would inevitably minimize PAH pollution as a co-benefit. Strengthening and expanding these efforts could have a major impact.
- Public information campaigns - Campaigns promoting clean energy, electric vehicles and sustainable living aimed at general public and industries. A coordinated, global effort could accelerate the clean energy transition and PAH emission reductions.

In essence, existing emission limits, monitoring programs, research initiatives, clean energy targets, climate actions and awareness campaigns demonstrate feasible approaches that could be scaled up, harmonized and implemented through international agreements and collaborations to effectively address PAH pollution risks on a global scale.

6. Which sectors/value chains need to be closely involved in developing solutions? (*Multi-choice. Please visit the two-page factsheet on [Polycyclic Aromatic Hydrocarbons](#) for more information on the topic. If you select "Other", please elaborate your response*).

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on the contributors to and sources of PAH pollution, either the United Nations Environment Programme (UNEP) or the United Nations Framework Convention on Climate Change (UNFCCC) would be best placed to take the lead on international action to address PAHs:

- UNEP - As the global environmental authority, UNEP has expertise in assessing pollution risks, setting emission limits and promoting cleaner technologies. UNEP could coordinate action from governments, corporations and technical agencies to develop best practices that minimize major PAH sources.
- UNFCCC - As the overarching framework for addressing climate change, UNFCCC has a mandate to promote clean energy transition and measures that reduce emissions of co-pollutants like PAHs. Transitioning away from PAH-emitting fossil fuels closely relates to UNFCCC's mission.

Both UNEP and UNFCCC working together would likely be most effective, combining UNEP's focus on pollution prevention and materials management with UNFCCC's focus on transitioning energy systems. Together they could:

- Fund research on PAH impacts and alternatives
- Conduct joint risk assessments
- Recommend best practices to limit PAH emissions
- Propose emission standards
- Establish monitoring programs
- Provide technical support to key emitting sectors
- Promote PAH co-benefits of climate actions through Paris Agreement
- Catalyze an international strategy to minimize PAH generating activities

With UNEP focusing on emission sources and UNFCCC concentrating on accelerating the clean energy transition, these complementary mandates could enable a comprehensive, sustainable approach to minimizing PAH pollution risks.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

- The Sustainable Development Goals (SDGs) - Particularly SDG 3 on health and wellbeing, SDG 7 on affordable clean energy, SDG 11 on sustainable cities, SDG 12 on responsible consumption and production, and SDG 13 on climate action. Transitioning to cleaner energy sources and reducing PAH pollution contributes to achieving these goals.
- The UN Framework Convention on Climate Change (UNFCCC) - Efforts to decarbonize energy systems, electrify transportation and mitigate climate change would inevitably result in lower PAH emissions as a co-benefit. PAH-emitting activities are closely tied to climate change.
- Agendas for the circular economy - The circular economy emphasizes waste prevention by designing out pollution like PAHs, making PAH risk mitigation highly relevant to its principles.
- Global initiatives on air pollution - Calls for action to address threats from ambient and indoor air pollution via cleaner fuels and technologies require reducing PAH emissions from combustion sources.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available*).

ere are some priorities for further work at a national level to help address risks from PAHs:

1. Conduct a national risk assessment - Review available data to identify major PAH sources within the country, which sectors emit the most PAHs, and which populations face the highest exposures and risks.
2. Restrict highest-emitting activities - Based on the risk assessment, impose targeted limits on activities found to result in the greatest PAH emissions. Prioritize restrictions on sectors with the most viable alternatives.
3. Invest in clean technologies - Provide funding and incentives for the development and adoption of technologies that minimize or eliminate PAH emissions, especially for high-emitting sectors like energy generation and transportation.

4. Strengthen emission standards - Ensure that air quality standards and limits on PAH emissions from industry, transportation and energy generation are sufficiently stringent to protect human health and the environment. Proactively enforce these standards.
 5. Improve transparency- Require major PAH emitters to publicly report their emissions on a regular basis. Publish government monitoring data to build public trust.
 6. Educate industries - Provide guidelines, best practices and training to help sectors transition away from practices that generate high PAH emissions through cleaner technologies where feasible.
 7. Develop a national clean energy plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for transitioning energy systems and transport fleets to gradually minimize PAH pollution as a co-benefit of decarbonization.
10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Priorities for work at the regional level to help address risks from polycyclic aromatic hydrocarbons could include:

1. Conduct a joint risk assessment - Combine available data across the region to identify key sources of PAH emissions, priority sectors for limits and restrictions, and populations facing highest exposures.
2. Harmonize monitoring programs - Establish common protocols and data sharing mechanisms for tracking PAH contamination in the environment, food, and humans across the entire region.
3. Fund collaborative research on alternatives - Provide regional funding for research into technologies that minimize or eliminate PAH pollution across multiple countries in the region.
4. Adopt harmonized emission limits - Negotiate and implement consistent limits on PAH emissions from sectors like power generation, transportation and industry across the region. This can accelerate transitions away from high-emitting activities.
5. Develop best practice guidelines - Create recommended measures for sectors and industries to transition towards cleaner technologies and operations that generate lower PAH emissions.
6. Provide technical support - Offer financial and technical assistance to least developed countries within the region to transition away from PAH-emitting activities and comply with stricter emission standards.
7. Foster information exchange - Create platforms for stakeholders across the region to share research findings, case studies of effective practices, challenges encountered and lessons learned. This can accelerate regional progress together.

11. Triclosan

Screening Question - Triclosan

Triclosan is a synthetic, broad-spectrum antibacterial chemical used as an additive in thousands of consumer and medical antibacterial products and plastics. It has been used commercially across the globe since the 1970s. Major global use is in cosmetics and personal care products (68%, particularly deodorants) followed by disinfection and medical use (16%) and lower amounts in paints (8%), and in plastic materials, toys and appliances (8%).

Please visit the two-page factsheet on [Triclosan](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Chemicals in Products (CIP))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Triclosan is a synthetic, broad-spectrum antibacterial chemical used as an additive in thousands of consumer and medical antibacterial products and plastics. It has been used commercially across the globe since the 1970s. Major global use is in cosmetics and personal care products (68%, particularly deodorants) followed by disinfection and medical use (16%) and lower amounts in paints (8%), and in plastic materials, toys and appliances (8%).

Please visit the two-page factsheet on [Triclosan](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*. _____

I do agree that further international action is likely needed to adequately address risks from triclosan:

- **Persistence and accumulation:** Triclosan is persistent in the environment and tends to bioaccumulate, spreading beyond national borders and impacting ecosystems on a global scale. Coordinated action is needed.
- **Impacts to human health:** While data are still limited, studies suggest triclosan may contribute to antibiotic resistance, alter hormone functioning and increase health risks like allergies and eczema. International research and regulation could help clarify and mitigate these potential human health impacts.
- **Uncertain toxicity:** There remains significant uncertainty regarding triclosan's toxicity and safety, particularly at low exposure levels. More research is needed to properly assess risks and inform effective interventions.
- **Complex supply chains:** Most nations import products containing triclosan since it is used widely in personal care items. Global agreements may be needed to reshape these supply chains.
- **Slow adoption of alternatives:** Alternatives to triclosan exist but have been slow to gain adoption. Stronger international policies may be required to motivate transitions away from triclosan.

- Inadequacy of isolated actions: Individual country restrictions on triclosan have had limited impact since exposures continue from products used elsewhere. Broader international strategies are likely needed.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*. _____

Potential international actions regarding triclosan could include:

- Coordinated monitoring - Fund and implement harmonized programs across countries to measure triclosan concentrations in the environment, consumer products and humans. This can clarify exposures, sources and trends over time.
- Joint risk assessments - As we discussed, conduct comprehensive reviews of triclosan hazards, exposures and risks pooling data and expertise from around the world. Transparent, science-based assessments should involve independent experts.
- Restrictions on highest-risk uses - Based on risk assessments, impose targeted limits or bans on uses of triclosan found to pose the greatest threats to human health. Initial restrictions may focus on products for sensitive groups.
- Alternatives incentives - Provide resources to research, develop and commercialize safer, non-halogenated alternatives to triclosan. Government support may be needed to accelerate adoption.
- Harmonized product standards - Set internationally agreed limits on the concentration of triclosan allowed in consumer products traded across borders. This consistency can reshape supply chains.
- Public awareness campaigns - Communicate scientific information about triclosan risks and ways to reduce exposures through safer alternatives. Target consumers, manufacturers and retailers.
- Technical support for at-risk regions- Offer assistance to help least developed countries strengthen capacity for assessing risks, evaluating alternatives and transitioning away from triclosan-reliant industries.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Coordinated monitoring and research - Fund and implement harmonized programs to measure triclosan exposures through consumer products, the environment and humans. This should leverage expertise from regions with the most relevant data.

Joint risk assessments - Conduct comprehensive reviews and analyses of triclosan hazards, exposures and risks based on the best available evidence from around the world. These assessments should be transparent, involve independent experts and follow consistent methodologies.

Restrictions on highest-risk uses - Impose targeted limits on uses of triclosan found to pose the greatest threats to human health and the environment based on risk assessments and potential for exposure, particularly in products for sensitive groups.

Alternatives funding and incentives - Provide support for research, development and commercialization of safer alternatives to triclosan, particularly for uses in consumer products aimed at sensitive populations.

Information sharing platforms - Create mechanisms for stakeholders to communicate research findings, challenges and case studies of triclosan substitutes that work. This knowledge exchange can accelerate alternative development and adoption.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*

None, there are no factors preventing action or progress

Other: _____

a. Please explain your response, including examples if possible: _____

Several potential factors could limit progress in addressing triclosan within your country or organization:

- **Economic reliance:** Your country or organization may rely on triclosan in products or industries that generate revenue and jobs. Transitioning away from triclosan could be challenging economically, at least in the short term.
- **Cost of alternatives:** Safer substitutes for triclosan in many applications can be more expensive to develop and implement. This can delay their adoption.
- **Limited expertise:** Many governments and organizations lack in-house knowledge and expertise to properly evaluate complex issues related to triclosan and alternatives.
- **Lobbying:** Chemical companies that produce or use triclosan may exert political influence through active lobbying and resistance to regulation.
- **Competing priorities:** Your country or organization may face more immediate issues that demand more resources and attention.
- **Uncertain risks:** Significant uncertainties remain regarding the potential health impacts of triclosan, particularly at typical exposure levels. This can stall policy changes seen as 'precautionary.'
- **Bureaucracy:** Responsibility for regulating triclosan may fall under multiple departments with different objectives, budgets and timelines, complicating coordinated action.

The specific obstacles your country or organization faces likely involve a combination of these common factors, including economic dependencies, political influences, technical challenges, resource constraints and institutional barriers. More details about your specific context would help identify the primary barriers inhibiting progress on triclosan.

But in general, economic reliance, costs of alternatives, lobbying, bureaucracy and a lack of definitive evidence about risks appear to be common themes limiting national and international progress on responsibly managing triclosan.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Some existing initiatives regarding triclosan that could potentially be replicated or scaled up internationally include:

- **Product restrictions** - Some countries have already restricted or banned triclosan in certain products, providing models for broader international standards.

- Monitoring programs - Several nations currently track triclosan levels in the environment, consumer goods and humans. Harmonizing monitoring globally could improve understanding of exposures.
- Alternatives initiatives - Efforts to speed the development and adoption of safer alternatives to triclosan in supply chains could be expanded to an international scale for greater impact.
- Research funding - The EU, US and others fund research on triclosan health impacts and safer substitutes. Increased, coordinated research at a global scale could resolve uncertainties and guide interventions.
- Guidelines and certifications - Schemes that certify products as 'triclosan-free' encourage best practices. Broader adoption and harmonization could accelerate transitions away from triclosan.
- Public awareness campaigns - Campaigns aimed at consumers, manufacturers and retailers to educate about triclosan risks and safer alternatives. A global information drive could accelerate progress.

In essence, existing product restrictions, monitoring programs, alternatives initiatives, research funding, guidelines and certification schemes, and awareness campaigns demonstrate approaches that could be scaled up, harmonized and implemented through international agreements to responsibly manage triclosan exposure risks on a global scale.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Triclosan](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on triclosan's risks to both human health and the environment, either the World Health Organization (WHO) or the United Nations Environment Programme (UNEP) would be best placed to take the lead on international action to address triclosan:

- WHO - As the UN agency focused on global public health, WHO has expertise regarding threats from chemical exposures and contaminants. WHO could convene governments, product manufacturers and chemical companies to develop international standards limiting triclosan risks, especially for sensitive groups.
- UNEP - As the UN's environmental authority, UNEP has a mandate to address pollution threats posed by emerging contaminants like triclosan. Triclosan already falls within UNEP's purview regarding chemical pollution.

Both WHO and UNEP working together would likely be most effective, combining WHO's specific focus on human health impacts with UNEP's comprehensive approach to chemicals management. Together they could:

- Fund research on triclosan impacts, exposures and alternatives
- Conduct joint risk assessments
- Recommend product standards limiting triclosan concentrations
- Establish monitoring programs
- Provide technical support to industries
- Negotiate amendments regarding triclosan risks under relevant agreements
- Catalyze an international strategy to phase out high-risk uses of triclosan

With WHO focusing on threats to sensitive populations and UNEP concentrating on a life cycle approach, these complementary mandates could enable a comprehensive, sustainable approach to minimizing triclosan exposures and associated human and environmental health risks.

- a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Addressing risks from triclosan is linked to several global agendas, including:

- The Sustainable Development Goals (SDGs) - Particularly SDG 3 on health and wellbeing, SDG 6 on clean water and sanitation, SDG 9 on industry and innovation, SDG 12 on responsible consumption and production, and SDG 14 on life below water. Reducing threats from triclosan contributes to achieving these goals.
- The Strategic Approach to International Chemicals Management (SAICM) - This overarching framework aims to achieve sound management of chemicals throughout their life cycles, including emerging contaminants like triclosan. Triclosan risks directly relate to SAICM's objectives.
- The Minamata and Stockholm Conventions - Both agreements aim to protect human health and the environment from harmful chemicals. Triclosan has some characteristics of a Persistent Organic Pollutant (POP), and thus could potentially be addressed under the Stockholm Convention.
- Agendas on sustainable materials - Efforts to transition to non-toxic products and supply chains are increasingly emphasizing the need to phase out endocrine disrupting chemicals like triclosan.
- Public health agendas - Calls to action like the WHO's triple billion goals highlight the need to ensure access to clean water and sanitation which requires reducing chemical pollution - including from products containing triclosan.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct a national risk assessment - Review available national data to identify major sources of triclosan exposure within your country, which industries use it most, and which populations face the highest risks.

Restrict highest-risk uses - Based on the risk assessment, impose targeted limits or bans on uses of triclosan found to pose the greatest threats, especially in products for sensitive groups like children and pregnant women.

Invest in alternative development - Provide funding and incentives for the research, development and commercialization of safer alternatives to triclosan, particularly for high-risk uses.

Strengthen product standards - Ensure that limits on triclosan concentrations in consumer products sold within your country are sufficiently stringent to protect human health. Proactively monitor and enforce these standards.

Improve transparency - Require manufacturers to publicly disclose the use of triclosan in products and report triclosan emissions. Regularly publish government monitoring data.

Educate industries - Provide guidelines, best practices and training to help industries transition away from uses of triclosan through adoption of safer substitutes where feasible.

Develop a national action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for gradually phasing out uses of triclosan while ensuring product safety, accessibility and affordability.

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

- Adopt harmonized standards
- Develop best practice guidelines
- Provide technical support to LDCs
- Foster information exchange

Regional cooperation facilitates:

- Information sharing
- Coordinated monitoring
- Joint research
- Knowledge dissemination
- Capacity building
- Negotiated agreements

Complementing and reinforcing national actions to manage triclosan risks.

12. Chemicals in products (CiP)

Screening Question - Chemicals in products (CiP)

Chemicals may be released at any stage of a product's life cycle (including production, use, recycling or reuse, end-of-life disposal), resulting in potential exposures for humans and the environment. Information exchange in the value chain is fundamental for manufacturers, brands, retailers, end-consumers, waste managers and regulators in identifying and soundly managing any chemicals of technical, environmental or human health concerns in products.

CiP was identified as an issue of concern under SAICM at ICCM2 in 2009, "with a view of taking appropriate cooperative actions, to consider the need to improve the availability of and access to information on chemicals in products in the supply chain and throughout their life cycle". SAICM stakeholders also identified four priority sectors: textiles, toys, building products and electronics.

Please visit the two-page factsheet on [Chemicals in Products](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Endocrine-disrupting chemicals (EDCs))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Chemicals may be released at any stage of a product's life cycle (including production, use, recycling or reuse, end-of-life disposal), resulting in potential exposures for humans and the environment. Information exchange in the value chain is fundamental for manufacturers, brands, retailers, end-consumers, waste managers and regulators in identifying and soundly managing any chemicals of technical, environmental or human health concerns in products.

CiP was identified as an issue of concern under SAICM at ICCM2 in 2009, "with a view of taking appropriate cooperative actions, to consider the need to improve the availability of and access to information on chemicals in products in the supply chain and throughout their life cycle". SAICM stakeholders also identified four priority sectors: textiles, toys, building products and electronics.

Please visit the two-page factsheet on [Chemicals in Products](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
 No
 Do not know

- a. Please provide a brief explanation for your response*. _____

Yes, I do agree that further international action is likely necessary to adequately address chemical risks from products:

- **Supply chain complexity:** Most nations import products containing chemicals that pose potential risks. A global approach is needed to trace chemicals through complex supply chains.
- **Data limitations:** Countries lack sufficient data on chemicals within imported products due to insufficient testing, disclosure rules and enforcement. International cooperation could help fill these information gaps.
- **Uncertain toxicity:** There remains significant uncertainty regarding the safety of many chemicals used in products. More research is needed to properly assess and minimize risks.
- **Inadequate substitution:** Safer substitutes for many high-risk chemicals exist but have been slow to gain adoption. Stronger international policies may be required to accelerate transitions.
- **Disproportionate impacts:** Developing nations with limited resources rely heavily on chemical-intensive products but struggle to assess and minimize risks. International support is warranted.

- Inadequacy of isolated actions: Individual country restrictions on high-risk chemicals have limited impact due to continued exposures from global product supply chains. Broader international strategies are needed.

In summary, given supply chain complexity, data limitations, uncertain toxicity, inadequate substitution, disproportionate impacts and inadequacy of isolated actions, further international coordination and agreements seem warranted to properly evaluate, trace and responsibly manage chemical risks within global product supply chains.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

- a. Please explain your response, including examples if possible*. _____

Potential international actions regarding chemicals in products could include:

- Coordinated monitoring - Fund and implement harmonized programs across countries to detect chemicals of concern within imported products. This can identify high priority risks.
- Joint risk assessments - Conduct comprehensive reviews of hazards, exposures and risks of chemicals used in products pooling data and expertise globally. Transparent, science-based assessments should involve independent experts.
- Restrictions on highest-risk chemicals - Based on risk assessments, impose targeted limits or bans on chemicals within products found to pose unreasonable threats to humans or the environment. Initial restrictions may focus on chemicals used in sensitive products.
- Alternatives incentives - Provide resources to accelerate research, development and adoption of safer substitutes for chemicals of highest concern within global supply chains. Government support may be needed.
- Transparent material declarations - Require manufacturers to disclose all intentionally added chemicals within products traded across borders. Set harmonized reporting thresholds.
- Public awareness campaigns - Communicate scientific information about chemical risks from products and ways to reduce exposures through safer alternatives. Target consumers, manufacturers and retailers.
- Technical support for at-risk regions - Offer assistance to help least developed countries strengthen capacity for assessing and managing chemical risks within products and supply chains.

Coordinated monitoring, risk assessment, restrictions, incentives, disclosure rules, public communication and technical support will likely require formal international agreements to effectively evaluate and manage chemical exposure risks within global product supply chains.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Based on current uncertainties regarding risks from many chemicals in products and available safer alternatives, I believe the most appropriate initial measures at the international level would be:

1. Coordinated monitoring programs - Fund and implement harmonized initiatives to detect chemicals of concern within globally traded products. Focus on chemicals with most limited toxicity data and restricted or banned in some countries.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of hazards and exposures of chemicals identified through monitoring programs. These assessments should involve independent experts, follow transparent methodologies and leverage data from multiple regions.
3. Restrictions on highest risk chemicals - Impose targeted limits on uses of chemicals within products found to pose the greatest threats based on risk assessments and availability of alternatives, prioritizing chemicals used in sensitive products.
4. Alternatives incentives - Provide support for research, development and commercialization of safer substitutes for chemicals subjected to restrictions, especially in sectors where alternatives are limited.
5. Information sharing platforms - Create mechanisms for stakeholders to communicate challenges, case studies and best practices for developing and implementing safer chemical alternatives within product supply chains.

Only after greater clarity regarding risks of chemicals currently used in products - based on robust exposure data, monitoring and risk assessment - would more restrictive and widespread approaches potentially be justified. Initially, the focus should be on prioritizing highest risk chemicals, incentivizing safer alternatives and increasing knowledge through international collaboration.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity
- Lack of scientific knowledge
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors
- Difficulty with resource mobilisation
- Lack of economically feasible green and sustainable alternatives
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?
- None, there are no factors preventing action or progress
- Other: _____

a. Please explain your response, including examples if possible: _____

Key factors limiting progress:

- Economic reliance
- Cost of alternatives
- Limited information
- Lobbying
- Competing priorities
- Uncertain risks
- Complex supply chains

Specific obstacles likely a mix of:

- Economic factors
- Political influences
- Informational challenges
- Resource constraints
- Institutional complexity

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? (Open space answer. Please share a weblink to the initiative(s) if available).

Examples of existing initiatives regarding chemicals in products that could potentially be replicated or scaled up internationally include:

- Restrictions - Some countries have already restricted or banned certain chemicals in products based on health concerns. Broader, harmonized restrictions could be implemented internationally.
- Disclosure requirements - Several nations require manufacturers to disclose chemicals within specific product categories. Harmonized, mandatory disclosure rules could reshape global supply chains.
- Alternatives initiatives - Efforts to speed adoption of safer substitutes for restricted chemicals in supply chains could be expanded to an international scale for greater impact.
- Research funding - The EU, US and others fund research on potential health effects of chemicals within products and safer alternatives. Increased, coordinated research at a global scale could resolve uncertainties and guide interventions.
- Certification schemes - Initiatives that certify products as 'PVC-free', 'free of BPA' or meeting similar standards encourage best practices. Broader, harmonized standards could accelerate alternatives adoption.
- Public awareness campaigns - Campaigns aimed at consumers, manufacturers and retailers to educate about chemical risks within products and safer options. Global campaigns could increase momentum for change.

In essence, existing restrictions, disclosure requirements, alternatives initiatives, research funding, certification schemes and information drives demonstrate approaches that could be scaled up, harmonized and implemented through international agreements to more sustainably manage chemical risks from globally traded products.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Chemicals in Products](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*

Other: _____

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? (*Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...*).

Based on the cross-cutting nature of chemical risks within products, either the United Nations Environment Programme (UNEP) or the World Health Organization (WHO) would be best placed to take the lead on international action to address this issue:

- UNEP - As the UN's environmental authority, UNEP has a mandate to address pollution threats posed by chemicals within globally traded products and materials. Chemical risks within products already fall under UNEP's purview.
- WHO - As the UN agency focused on global public health, WHO has expertise regarding threats from chemical exposures through consumer goods. WHO could convene relevant sectors to establish international standards limiting risks, especially for sensitive groups.

Both UNEP and WHO working together would likely be most effective, combining UNEP's comprehensive approach to chemicals management with WHO's focus on human health impacts. Together they could:

- Fund research on chemical risks within products and safer alternatives
- Conduct joint risk assessments
- Recommend product standards limiting concentrations of chemicals of concern
- Establish monitoring programs
- Provide technical assistance to industries
- Negotiate amendments covering chemical risks within products under relevant agreements
- Catalyze an international strategy to phase out highest-risk chemicals within consumer goods

With UNEP focusing on life cycle impacts and WHO concentrating on sensitive populations, these complementary mandates could enable a comprehensive, sustainable approach to minimizing chemical exposure risks from globally traded products.

- a. Which international agendas have important linkages with this issue of concern? (*Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

- ✓ *Agriculture and Food*
- ✓ *Biodiversity*
- ✓ *Climate Change*
- ✓ *Health*
- Human Rights*
- ✓ *Sustainable Consumption and Production*

- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

Addressing chemical risks within products is linked to several global agendas, including:

- The Sustainable Development Goals (SDGs) - Especially SDG 3 on health and wellbeing, SDG 9 on industry and innovation, SDG 12 on responsible consumption and production, and SDG 14 on life below water. Reducing risks from chemicals within products contributes to achieving these goals.
- The Minamata and Basel Conventions - Both conventions aim to reduce threats posed by hazardous chemicals. Chemical risks within products and waste products fall within the scope of these agreements.
- The Rotterdam Convention - This agreement promotes sharing of information on potentially hazardous chemicals traded globally. This includes chemicals used within products.
- Agendas on a circular economy - Transitions towards more sustainable production and consumption cycles require minimizing chemical risks within both products and waste streams.
- Public health agendas - Goals like WHO's triple billion targets highlight the need to ensure healthy environments, free from unnecessary chemical exposures including those from consumer products.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available*).

- assessments, impose targeted limits or bans on chemicals within imported products found to pose unreasonable threats to human health or the environment.
- Improve disclosure requirements - Require full transparency from manufacturers on all intentionally added chemicals within products traded within your national market. Implement higher reporting thresholds for hazardous chemicals.

- Strengthen product standards - Ensure that limits on chemical concentrations within products comply sold within your country are sufficiently protective of human health and the environment. Actively enforce these standards.
- Fund alternative development - Provide grants and incentives for the research, development and commercialization of safer substitutes for chemicals of high concern, especially in sectors that currently lack viable alternatives.
- Educate industries - Provide guidelines, best practices and training to help industries comply with disclosure rules, product standards and transitions away from chemicals of high concern through adoption of safer substitutes.
- Develop an action plan- Create a comprehensive national strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for reducing chemical risks within products while ensuring accessibility, affordability and sustainability.

10. Is there any priority further work you would like to suggest at the regional level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

Here are some priorities for work at the regional level to help address chemical risks from products:

1. Conduct joint risk assessments - Combine available data across the region to identify the product categories, supply chains and populations requiring greatest oversight and intervention.
2. Harmonize monitoring programs - Establish consistent protocols and data sharing mechanisms for detecting chemicals of concern within products that are traded within the region.
3. Fund collaborative alternatives research - Provide regional funding for research into safer substitutes for chemicals of high concern used within product categories of importance to the region.
4. Adopt harmonized product standards - Negotiate and implement consistent limits on chemical concentrations within products traded within the region. This can reshape supply chains.
5. Develop best practice guidelines - Create recommended measures for industries and sectors to minimize use of concerning chemicals within products through material substitutions and alternative technologies.
6. Provide technical support - Offer financial and technical assistance to least developed countries within the region to strengthen capacity for assessing chemical risks within products, evaluating alternatives and complying with standards.
7. Foster information exchange - Create platforms for stakeholders across the region to share case studies of effective practices, challenges encountered and lessons learned to accelerate progress together.

13. Endocrine-disrupting chemicals (EDCs)

Screening Question - Endocrine-disrupting chemicals (EDCs)

An EDC is an exogenous substance or mixture that alters the function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations. Substantial efforts have been made over the past two decades to develop a better scientific understanding of EDCs and their characteristics, to test and identify EDCs, and to develop scientific approaches in order to support risk management measures.

In 2012, at ICCM3, EDCs were identified as an issue of concern under SAICM, and SAICM stakeholders decided “to implement cooperative actions on endocrine-disrupting chemicals with the overall objective of increasing awareness and understanding among policymakers and other stakeholders” and invited IOMC organisations to lead and facilitate a series of cooperative actions on EDCs, which was renewed in a Resolution at ICCM4.

Please visit the two-page factsheet on [Endocrine Disrupting Chemicals](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Environmentally Persistent Pharmaceutical Pollutants (EPPPs))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- b. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Endocrine-disrupting chemicals (EDCs)

An EDC is an exogenous substance or mixture that alters the function(s) of the endocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub)populations. Substantial efforts have been made over the past two decades to develop a better scientific understanding of EDCs and their characteristics, to test and identify EDCs, and to develop scientific approaches in order to support risk management measures.

In 2012, at ICCM3, EDCs were identified as an issue of concern under SAICM, and SAICM stakeholders decided “to implement cooperative actions on endocrine-disrupting chemicals with the overall objective of increasing awareness and understanding among policymakers and other stakeholders” and invited IOMC organisations to lead and facilitate a series of cooperative actions on EDCs, which was renewed in a Resolution at ICCM4.

Please visit the two-page factsheet on [Endocrine Disrupting Chemicals](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

Please provide a brief explanation for your response*.

Yes, I do agree that further international action is likely necessary to adequately address risks from endocrine-disrupting chemicals (EDCs):

- **Complex exposure pathways:** EDCs can enter the human body and environment through multiple pathways including food, water, consumer products and air. A coordinated, global approach is needed to effectively reduce exposures.
- **Data gaps:** Significant uncertainties exist regarding the safety of many chemicals with potential endocrine activity due to limited testing and research. International collaboration could help fill these data gaps.
- **Slow substitution:** Safer substitutes exist for some high-risk EDCs but have been slow to gain adoption. Stronger international policies may be required to accelerate transitions away from EDCs.
- **Disproportionate impacts:** Developing nations with limited resources rely heavily on EDC-intensive products but struggle to assess and minimize risks. International support is warranted.

- Inadequacy of isolated actions: Individual country restrictions on high-risk EDCs have had limited impact due to continued exposures from global sources. Broader international strategies are likely needed.

In summary, given complex exposure pathways, data limitations, slow substitution, disproportionate impacts and inadequacy of isolated actions, further international coordination and agreements seem warranted to properly evaluate, trace and responsibly manage risks posed by endocrine-disrupting chemicals.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

- a. Please explain your response, including examples if possible*. _____

Potential international actions regarding endocrine-disrupting chemicals could include:

- Coordinated monitoring - Fund and implement harmonized programs across countries to detect EDCs within the environment, food, consumer products and humans. This can identify high priority risks.
- Joint risk assessments - Conduct comprehensive reviews of hazards, exposures and risks of identified EDCs pooling data and expertise globally. Transparent, science-based assessments should involve independent experts.
- Restrictions on highest-risk EDCs - Based on risk assessments, impose targeted limits or bans on EDCs found to pose unreasonable threats to humans or the environment, especially where safer alternatives exist.
- Alternatives incentives - Provide resources to accelerate research, development and adoption of safer substitutes for EDCs of highest concern within global supply chains. Government support may be needed.
- Transparent material declarations - Require manufacturers to disclose all intentionally added EDCs within products traded across borders. Set harmonized reporting thresholds.
- Public awareness campaigns - Communicate scientific information about risks from EDCs and ways to reduce exposures through safer alternatives. Target consumers, manufacturers and retailers.

- Technical support for at-risk regions - Offer assistance to help least developed countries strengthen capacity for assessing and managing EDC risks

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Based on current uncertainties regarding risks posed by many EDCs and available safer alternatives, I believe the most appropriate initial measures at the international level would be:

1. Coordinated monitoring programs - Fund and implement harmonized programs to detect EDCs within the global environment, products and humans. Focus on chemicals with most limited toxicity data and restricted or banned in some countries.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of hazards and exposures of identified EDCs. These assessments should involve independent experts and follow transparent methodologies leveraging data from multiple regions.
3. Restrictions on highest risk EDCs - Impose targeted limits on uses of EDCs found to pose the greatest threats based on risk assessments and availability of alternatives. Prioritize EDCs lacking essential uses and with viable non-EDC substitutes.
4. Alternatives incentives - Provide support for research, development and commercialization of safer substitutes for highest concern EDCs, especially in sectors that currently lack non-EDC options.
5. Information sharing platforms - Create mechanisms for stakeholders to communicate challenges, case studies and best practices for developing and implementing safer alternatives to EDCs within supply chains.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)*?

- Lack of technical capacity*

- Lack of scientific knowledge*
- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Several factors could potentially limit progress in addressing risks from EDCs within your country or organization:

- **Economic reliance:** Your country or sectors may depend on revenue and jobs from manufacturing and using EDCs, making changes challenging economically.
- **Cost of alternatives:** Safer substitute chemicals for many EDC applications can be more expensive to implement, slowing their adoption.
- **Limited information:** Your country or organization may lack sufficient data on EDC contents and uses within products and industries to properly assess and manage risks.
- **Lobbying:** Chemical companies that produce or use EDCs may exert political influence through lobbying and resistance to disclosure rules or restrictions.
- **Competing priorities:** Your country or organization may face more immediate issues that demand more resources and attention.
- **Uncertain risks:** Significant uncertainties remain regarding potential health impacts of many EDCs, especially at low exposure levels. This can stall policy changes seen as 'precautionary.'
- **Complex supply chains:** Responsibility for EDCs may span multiple stages of global supply chains, creating institutional barriers to coordinated action.

The specific obstacles your country or organization faces likely involve a combination of these factors: economic dependencies, political influences, informational challenges, resource constraints and institutional complexity. More details about your context could identify key barriers inhibiting progress on responsibly managing risks from EDCs.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

6. Examples of existing initiatives regarding EDCs that could potentially be replicated or scaled up internationally include:

- **Restrictions -** Some countries have already restricted or banned certain EDCs based on health concerns. Broader, harmonized restrictions could be implemented internationally.

- Disclosure requirements - Some nations require manufacturers to disclose EDCs within specific product categories. Harmonized, mandatory disclosure rules could reshape global supply chains.
- Alternatives initiatives - Efforts to speed adoption of safer substitutes for restricted EDCs in supply chains could be expanded to an international scale for greater impact.
- Research funding - The EU, US and others fund research on potential health effects of EDCs and safer alternatives. Increased, coordinated research at a global scale could resolve uncertainties and guide interventions.
- Guidelines and certifications - Initiatives that certify products as 'phthalate-free', 'BPA-free' or meeting similar standards related to EDCs encourage best practices. Harmonized, broader standards could accelerate alternatives adoption.
- Public awareness campaigns - Campaigns aimed at consumers, manufacturers and retailers to educate about risks from EDCs and safer options. Global campaigns could increase momentum for change.

In essence, existing restrictions, disclosure requirements, alternatives initiatives, research funding, guidelines, certifications and information drives demonstrate approaches that could be scaled up, harmonized and implemented through international agreements to more sustainably manage risks from EDCs on a global scale.

7. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Endocrine Disrupting Chemicals](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

8. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on EDCs' threats to both human health and the environment, either the World Health Organization (WHO) or the United Nations Environment Programme (UNEP) would be best placed to take the lead on international action to address risks from endocrine-disrupting chemicals:

- WHO - As the UN agency focused on global public health, WHO has expertise regarding threats from EDCs and endocrine disruption. WHO could convene governments, industries and chemical companies to develop international standards limiting EDC risks, especially for sensitive groups.
- UNEP - As the UN's environmental authority, UNEP has a mandate to address pollution threats posed by emerging contaminants like EDCs. EDCs already fall under UNEP's purview regarding chemical pollution and environment impacts.

- a. Which international agendas have important linkages with this issue of concern?
(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Addressing risks from endocrine-disrupting chemicals is linked to several global agendas, including:

- The Sustainable Development Goals (SDGs) - Especially SDG 3 on health and wellbeing, SDG 6 on clean water and sanitation, SDG 9 on industry and innovation, SDG 12 on responsible consumption and production, and SDG 14 on life below water. Reducing threats from EDCs contributes to achieving these goals.
- The Strategic Approach to International Chemicals Management (SAICM) - This framework aims to achieve sound management of chemicals, including EDCs. EDC risks directly relate to SAICM's objectives.
- The Minamata and Stockholm Conventions - Both conventions aim to protect human health and the environment from harmful chemicals, some of which are EDCs. EDCs fall within the scope of these agreements.

- Agendas on a circular economy - Transitions towards more sustainable production and consumption cycles require reducing risks from EDCs within both products and waste streams.
- Public health agendas - Goals like WHO's triple billion targets highlight the need to ensure healthy environments, free from chemical exposures including EDCs.

9. What priority level do you attach to this issue for international action?

- Very high
- High
- Medium
- Low
- Very low

10. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for further work at a national level to help address risks from EDCs:

1. Conduct risk assessments - Review national data to identify which exposures and populations within your country face the greatest risks from EDCs. Determine which industries rely most heavily on EDCs.
2. Restrict highest-risk EDCs - Based on risk assessments, impose targeted limits or bans on uses of EDCs found to pose unreasonable threats to human health or the environment, prioritizing EDCs without essential uses and with readily available alternatives.
3. Invest in alternative development - Provide funding and incentives for the research, development and commercialization of safer substitutes for prioritized EDCs, especially for high-risk uses that currently lack viable alternatives.
4. Strengthen product standards - Ensure that limits on EDC concentrations in products sold within your country comply are sufficiently protective of human health, especially for sensitive populations. Actively enforce these standards.
5. Improve transparency requirements - Require manufacturers to publicly disclose the presence and uses of EDCs in products and report EDC emissions. Regularly publish government monitoring data.
6. Educate industries - Provide guidelines, best practices and training to help industries transition away from uses of prioritized EDCs through adoption of safer substitutes where feasible.
7. Develop a national action plan - Create a comprehensive strategy in consultation with stakeholders that sets quantifiable targets, timelines and roles for gradually phasing out uses of EDCs while ensuring product safety, accessibility and affordability.

11. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some priorities for work at a regional level to help address risks from EDCs:

1. Conduct a joint risk assessment - Combine available data across the region to identify key sources of EDC exposures, priority EDCs for restrictions, and industries that rely most on EDCs.
2. Harmonize monitoring programs - Establish consistent protocols and data sharing mechanisms for monitoring EDC residues in products, food, water and humans across the entire region.
3. Fund collaborative alternative research - Provide regional funding for research into safer, non-EDC alternatives for prioritized EDCs within the region.
4. Adopt harmonized product standards - Negotiate and implement maximum levels of EDCs allowed in consumer products and industrial chemicals traded within the region. This can reshape supply chains.
5. Develop best practice guidelines - Create recommended measures for industries to minimize use of EDCs through material substitutions and alternative technologies.
6. Provide technical support - Offer financial and technical assistance to least developed countries within the region to strengthen capacity for assessing EDC risks, evaluating alternatives and complying with standards.
7. Foster information exchange - Create platforms for stakeholders across the region to share case studies of effective practices, challenges encountered and lessons learned to accelerate progress together.

14. Environmentally Persistent Pharmaceutical Pollutants (EPPPs)

Screening Question - Environmentally Persistent Pharmaceutical Pollutants (EPPPs)

Pharmaceuticals, including antibiotics, and their metabolites can enter the environment through a variety of pathways, including wastewater and solid waste from pharmaceutical manufacturing, consumption and excretion, improper disposal of unused or expired products, animal husbandry and aquafarming. Their presence in the environment may result in different adverse effects on wildlife and ecosystems; some well-known cases include endangerment of some vulture species, reproductive failures in fish, and the development of antimicrobial resistance.

Internationally, EPPPs were recognized as an issue of concern under SAICM at ICCM4 in 2015. The same resolution “considers that information dissemination and awareness-raising on EPPP are particularly relevant and that improving the availability of and access to information on such chemicals is a priority”, “recognizes the current knowledge gaps on exposure to and the effects of EPPP”, “decides to implement cooperative actions on EPPP with the overall objective of increasing awareness and understanding among policymakers and other stakeholders”, and “requests all interested stakeholders and organizations to provide support, including expertise, financial and in-kind resources, on a voluntary basis, for such cooperative action, including by participating in developing and making available relevant information and guidance”

Please visit the two-page factsheet on [Environmentally Persistent Pharmaceutical Pollutants](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Hazardous substances within the life cycle of electrical and electronic products (HSLEEP))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Pharmaceuticals, including antibiotics, and their metabolites can enter the environment through a variety of pathways, including wastewater and solid waste from pharmaceutical manufacturing, consumption and excretion, improper disposal of unused or expired products, animal husbandry and aquafarming. Their presence in the environment may result in different adverse effects on wildlife and ecosystems; some well-known cases include endangerment of some vulture species, reproductive failures in fish, and the development of antimicrobial resistance.

Internationally, EPPPs were recognized as an issue of concern under SAICM at ICCM4 in 2015. The same resolution “considers that information dissemination and awareness-raising on EPPP are particularly relevant and that improving the availability of and access to information on such chemicals is a priority”, “recognizes the current knowledge gaps on exposure to and the effects of EPPP”, “decides to implement cooperative actions on EPPP with the overall objective of increasing awareness and understanding among policymakers and other stakeholders”, and “requests all interested stakeholders and organizations to provide support, including expertise, financial and in-kind resources, on a voluntary basis, for such cooperative action, including by participating in developing and making available relevant information and guidance”

Please visit the two-page factsheet on [Environmentally Persistent Pharmaceutical Pollutants](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

- a. Please provide a brief explanation for your response*. _____

Yes, I do agree that further international action is likely necessary to adequately address risks from environmentally persistent pharmaceutical pollutants (EPPPs):

- **Complex exposure pathways:** EPPPs can enter the environment and human bodies through multiple pathways including wastewater, landfill leakage, and pharmaceutical manufacturing waste. A global approach is needed to effectively reduce exposures.
- **Data gaps:** Significant uncertainties exist regarding the safety of many pharmaceuticals due to limited testing and research on long-term, low-dose impacts and chronic exposure risks, especially for EPPPs. International collaboration could help fill these data gaps.
- **Slow substitution:** While switching to less persistent pharmaceuticals is preferable, options are often limited by medical need, efficacy and cost. Stronger international policies may be required to safely manage EPPPs.

- Disproportionate impacts: Developing nations with limited resources rely heavily on pharmaceutical products but struggle to assess and minimize EPPP risks. International support is warranted.
- Inadequacy of isolated actions: Individual country efforts to reduce EPPPs have had limited long-term impact due to continued inputs of EPPPs from global sources. Broader international strategies are likely needed.

In summary, given complex exposure pathways, data limitations, slow substitution prospects, disproportionate impacts and inadequacy of isolated actions, further international coordination and agreements seem warranted to properly evaluate, trace and responsibly manage risks posed by environmentally persistent pharmaceutical pollutants.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*. _____

Potential international actions regarding environmentally persistent pharmaceutical pollutants could include:

- Coordinated monitoring - Fund and implement harmonized programs across countries to detect EPPPs within the environment, especially water sources. This can identify high priority risks and pollution hotspots.
- Joint risk assessments - Conduct comprehensive reviews of hazards, exposures and risks of identified EPPPs pooling data and expertise globally. Transparent, science-based assessments should involve independent experts.
- Pollution reduction plans - Based on hotspot identification and risk assessments, set quantifiable targets and implement plans to minimize EPPP releases from pharmaceutical manufacturing, wastewater treatment plants, and other major sources.
- Best practices guidelines - Promote adoption of strategies to reduce EPPPs through safer pharmaceutical design, alternative formulations, optimized dosages, and improved wastewater treatment technologies.
- Transparent material declarations - Require manufacturers to disclose persistence and environmental impact data for pharmaceuticals traded across borders. Harmonize reporting thresholds.

- Public awareness campaigns - Communicate scientific information about risks from EPPPs and ways to minimize releases through responsible use and disposal of medications. Target consumers, industry and medical professionals.
- Technical support for at-risk regions - Offer assistance to help least developed countries strengthen capacity for assessing and managing EPPP risks, especially for wastewater treatment and pharmaceutical manufacturing facilities.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Coordinated monitoring programs - Fund and implement harmonized programs to detect EPPPs within the environment, especially water sources. Focus on pharmaceuticals already identified as persistently polluting and bioaccumulating.

Joint risk assessments - Conduct comprehensive reviews of hazards, persistence, bioaccumulation potential and known exposures of EPPPs. These assessments should involve independent experts and follow transparent methodologies leveraging data from multiple regions.

Pollution reduction plans - Based on monitoring data and risk assessments, set quantifiable targets and implement plans to minimize EPPP pollution from major sources like wastewater treatment plants and pharmaceutical manufacturing facilities.

Best practices guidelines - Promote the adoption of strategies to reduce EPPPs through safer pharmaceutical design and formulation, optimized dosages, and improved wastewater treatment technologies.

Information sharing platforms - Create mechanisms for stakeholders to communicate challenges, case studies and best practices for reducing EPPPs from major sources

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*

- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Several factors could potentially limit progress in addressing risks from EPPPs within your country or organization:

- **Medical need:** Many EPPP-containing pharmaceuticals treat conditions where few or no alternatives exist, limiting options for significant reductions.
- **Limited data:** Your country or organization may lack sufficient information on persistence, bioaccumulation and toxicity for many pharmaceuticals on the market to properly assess and manage EPPP risks.
- **Cost:** Implementing strategies to reduce EPPPs through safer design, optimized formulations or improved wastewater treatment can be costly, especially for developing nations.
- **R&D priorities:** Pharmaceutical companies prioritize efficacy, safety and patient needs over environmental impacts, slowing the development of less persistent options.
- **Competing priorities:** Your country or organization may face more immediate public health issues that demand more resources and attention.
- **Complex supply chains:** Responsibility for EPPPs may span multiple stages of global supply chains, creating institutional barriers to coordinated action.
- **Technology gaps:** The technologies needed to fully prevent EPPPs from wastewater and manufacturing waste may be limited or unavailable, especially in resource-constrained regions.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

While initiatives specifically targeting environmentally persistent pharmaceutical pollutants are limited, some existing programs regarding wastewater management, pollution reduction and safer pharmaceutical design could potentially be scaled up internationally:

- The Global Water Partnership works with governments and stakeholders to promote integrated water resources management and improve wastewater treatment. Their approaches could address pharmaceutical contaminants in wastewater.

- The WHO Strategic Approach to International Chemicals Management (SAICM) aims to achieve sound management of chemicals, including pharmaceuticals. SAICM's framework could potentially be extended to focus on EPPPs.
- The EU has funded research initiatives to identify measures for reducing releases of pharmaceutical contaminants from wastewater treatment plants. The results of this research could guide international action.
- Individual pharmaceutical companies have begun researching "green drug design" - developing drugs that degrade more quickly in the environment and have lower persistence profiles. Sharing of best practices could accelerate this shift internationally.
- The U.S. EPA's Green Chemistry Program incentivizes and recognizes the design of more environmentally benign pharmaceuticals and chemicals. A similar program at an international level could promote EPPP reduction.

While targeted at broader issues, these existing initiatives demonstrate approaches - through research collaboration, best practices promotion, incentive programs and international frameworks - that could potentially be scaled up and adapted to specifically address environmentally persistent pharmaceutical pollutants on a global scale.

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Environmentally Persistent Pharmaceutical Pollutants](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

Based on the cross-cutting nature of EPPP risks, either the United Nations Environment Programme (UNEP) or the World Health Organization (WHO) would be best placed to take the lead on international action to address this issue:

- UNEP - As the UN's environmental authority, UNEP has a mandate to address pollution threats posed by chemical contaminants like pharmaceutical residues. EPPPs already fall under UNEP's purview regarding pollution and environmental impacts.

- WHO - As the lead UN agency for global public health, WHO has expertise regarding pharmaceutical safety and proper medication use. WHO could convene governments, industries and medical professionals to limit EPPP risks.

a. Which international agendas have important linkages with this issue of concern?
(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

Addressing risks from environmentally persistent pharmaceutical pollutants is linked to several global agendas:

1. The Sustainable Development Goals (SDGs):

- SDG 3 on health and wellbeing
- SDG 6 on clean water and sanitation
- SDG 9 on industry and innovation
- SDG 12 on responsible consumption and production
- SDG 14 on life below water.

Reducing EPPP threats helps achieve these goals.

2. The Strategic Approach to International Chemicals Management (SAICM):

This framework aims for sound chemicals management, including pharmaceutical residues. EPPP risks relate to SAICM's objectives.

3. The Minamata Convention:

This agreement protects human health and the environment from chemical contaminants like EPPPs.

4. Circular economy agendas:

Transitioning to sustainable production/consumption requires minimizing EPPP risks in products and waste streams.

5. Public health agendas:

WHO's triple billion targets highlight the need for healthy environments with essential access to medicines and minimal chemical exposures including EPPPs.

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

- Conduct risk assessments - Review available data to determine which EPPPs, exposure routes and populations within your country pose the greatest risks. Identify major sources of EPPP pollution.
- Restrict unnecessary uses - Limit non-essential uses of pharmaceuticals with a high persistence and bioaccumulation potential wherever safer alternatives exist.
- Invest in pollution reduction - Provide funding for initiatives to minimize EPPP pollution from major sources like wastewater treatment plants, pharmaceutical manufacturing facilities and landfills.
- Encourage green drug design - Provide incentives for pharmaceutical companies to develop drugs that degrade more quickly in the environment while maintaining effectiveness, safety and accessibility.
- Strengthen wastewater treatment - Require advanced treatment technologies for wastewater streams with high concentrations of EPPPs. Actively enforce these standards.
- Improve reporting requirements - Mandate full disclosure of persistence, bioaccumulation and toxicity data for pharmaceuticals on your national market from manufacturers.
- Develop an action plan - Create a comprehensive national strategy in collaboration with stakeholders that sets targets, timelines and responsibilities for gradually reducing EPPP pollution while ensuring access to essential medicines

9. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Here are some additional priorities for work to reduce risks from EPPPs:

- Develop incentives and recognition programs - Reward and recognize pharmaceutical companies, hospitals and wastewater treatment plants that demonstrate best practices for minimizing EPPP pollution. Publicly report results.
- Promote safer alternatives - Where viable options exist, encourage transitioning to less persistent pharmaceuticals through public awareness campaigns, guideline development and incentive programs.
- Improve efficacy of wastewater treatment - Fund research into advanced treatment technologies able to remove a broader range of EPPPs from wastewater. This includes technologies like ozonation, activated carbon, membrane filtration and photo-degradation.
- Reduce excess use and overprescription - Implement public education programs and prescribing guidelines to optimize pharmaceutical doses and courses of treatment. Excess or unnecessary use contributes to EPPP pollution.
- Improve disposal practices - Educate consumers about safe disposal options to minimize EPPP releases from landfills and sewers. Recommend take-back programs and pharmaceutical take-back days.
- Enhance pollution prevention - Integrate strategies to design out EPPPs into broader initiatives aimed at green chemistry, sustainable manufacturing, green design and circular economy principles.
- Institutionalize into policy frameworks - Formally incorporate EPPP minimization and management into relevant agendas and agreements focused on chemicals management, pollution reduction, sustainable development and public health protection.

In general, a multi-pronged approach is needed involving incentives, technology development, optimization of use practices, improved disposal, integrated design principles and inclusion within broader policy frameworks alongside initiatives aimed specifically at EPPPs themselves.

15. Hazardous substances within the life cycle of electrical and electronic products
(HSLEEP)

*Screening Question - Hazardous substances within the life cycle of electrical and electronic products
(HSLEEP)*

Electrical and electronic products (EEP), also referred to as electronic and electrical equipment (EEE), include any device with a circuit, battery or plug. They can contain many chemical additives for certain properties such as flame retardancy. Some chemical additives may be hazardous, including heavy metals and persistent organic pollutants (POPs), and may be released during production, use, transport, and end-of-life treatment (disposal or recycling), leading to environmental and human exposures and possible adverse effects.

HSLEEP was adopted as an EPI at ICCM2 in 2009. Conscious that actions are needed up-, mid- and downstream, a life cycle approach was endorsed. Despite valuable efforts made at all levels, significant challenges remain in regard to identifying, disseminating and implementing best practices at all stages of the life cycle, including design, recycling and disposal.

Please visit the two-page factsheet on [Hazardous Substances within the Life cycle of Electrical and Electronic Products](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Highly Hazardous Pesticides (HHPs))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)

Electrical and electronic products (EEP), also referred to as electronic and electrical equipment (EEE), include any device with a circuit, battery or plug. They can contain many chemical additives for certain properties such as flame retardancy. Some chemical additives may be hazardous, including heavy metals and persistent organic pollutants (POPs), and may be released during production, use, transport, and end-of-life treatment (disposal or recycling), leading to environmental and human exposures and possible adverse effects.

HSLEEP was adopted as an EPI at ICCM2 in 2009. Conscious that actions are needed up-, mid- and downstream, a life cycle approach was endorsed. Despite valuable efforts made at all levels, significant challenges remain in regard to identifying, disseminating and implementing best practices at all stages of the life cycle, including design, recycling and disposal.

Please visit the two-page factsheet on [Hazardous Substances within the Life cycle of Electrical and Electronic Products](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
 No
 Do not know

Please provide a brief explanation for your response*.

Yes, I do agree that further international action may be necessary to adequately address risks from hazardous substances within the life cycle of electrical and electronic products (HSLEEPS):

- **Complex supply chains:** HSLEEPS have long, global supply chains involving many manufacturers. A coordinated, multinational approach is needed to effectively manage risks across the entire life cycle.
- **Data gaps:** There are still significant uncertainties regarding the safety of many substances used in electronic products due to limited testing and disclosure. International collaboration could help fill these data gaps.
- **Slow substitution:** While safer alternatives exist for some HSLEEPS, they have been slow to gain adoption. Stronger international policies may be required to accelerate safer chemical use.
- **Disproportionate impacts:** Developing nations that rely heavily on e-waste recycling struggle to assess and reduce risks from HSLEEPS. They would benefit from international support.

- Inadequacy of isolated actions: Individual country restrictions on certain HSLEEPs likely have limited effectiveness due to continued global supply chains. Broader international strategies may therefore be needed

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*.

Some other potential international actions regarding HSLEEPs could include:

- Pollution reduction plans - Based on risk assessments and hotspot identification, set targets and implement plans to minimize releases of prioritized HSLEEPs from major sources like e-waste recycling and waste incineration.

- Design for environment guidelines - Promote the adoption of design strategies to reduce or eliminate uses of high-risk HSLEEPs through material substitutions, optimized components and alternative technologies.

- Technical standards - Establish international standards for limiting concentrations of prioritized HSLEEPs in electric/electronic parts, components and products traded across borders.

- Investment in green chemistry - Fund research into green and sustainable alternatives to high risk HSLEEPs through knowledge sharing platforms and international collaborative grants.

- Pollutant release inventories - Require electric/electronic product manufacturers to publicly report annual releases of prioritized HSLEEPs and chemicals of concern, informing pollution reduction efforts.

- Technical support for at-risk regions - Provide financial and technical assistance to least developed countries to strengthen capacity for assessing HSLEEP risks, evaluating alternatives and transitioning away from high risk chemicals and processes.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*

- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Transparency requirements - Mandate full disclosure of all intentionally added HSLEEP chemicals within electric/electronic products traded across borders. Set harmonized reporting limits.

Design for environment guidelines - Develop best practice guidance for product designers and manufacturers on how to reduce or eliminate uses of high-risk HSLEEPS through material substitutions, optimized components and alternative technologies.

Pollution reduction targets - Based on risk assessments and hotspot identification, set quantifiable goals and timelines for minimizing releases of prioritized HSLEEPS from major sources like e-waste recycling and waste incineration.

Technical standards - Establish common international standards for maximum allowable concentrations of prioritized HSLEEPS in electric/electronic parts and components.

Fund green chemistry research - Provide grant funding for research into more sustainable alternatives to high risk HSLEEPS through international collaborative programs.

Capacity building in at-risk regions - Offer technical and financial assistance to least developed countries to strengthen their ability to assess HSLEEP risks, adopt alternatives and minimize pollution from e-waste recycling.

4. What factors prevent action/progress on addressing the issue in your country/ organization
(Multiple answers based on list below)?

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Several factors could potentially limit progress in addressing risks from HSLEEPS within your country or organization:

- Economic reliance: Production and recycling of electronic products may provide significant jobs and revenue, making changes challenging economically.
- Cost of alternatives: Substitute components and materials with fewer HSLEEPs tend to have higher prices, slowing their adoption.
- Limited data: There may be insufficient information regarding the presence and impacts of specific HSLEEPs within supply chains to properly assess and manage risks.
- Lobbying: Chemical and electronics companies that produce/use HSLEEPs may resist disclosure requirements or restrictions through political influence.
- Competing priorities: Your country or organization may face more immediate issues that demand more resources and attention.
- Uncertain risks: Significant uncertainties remain regarding potential health impacts of many HSLEEPs, especially at low exposure levels. This can stall policy changes seen as 'precautionary.'
- Complex supply chains: Responsibility for HSLEEPs spans global supply chains, creating institutional barriers to coordinated action.

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Examples of potential initiatives on HSLEEPs that could be scaled up internationally include:

- Restrictions - Some countries have already restricted certain hazardous substances within electric/electronic products based on health concerns. Broader, harmonized restrictions could reshape global supply chains.
- Disclosure requirements - Some nations require electronics manufacturers to report on chemical content within products. Harmonized, mandatory disclosure rules requiring full transparency could accelerate alternatives adoption.
- Design for environment guidelines - Initiatives promoting material substitutions, component optimization and toxicity reduction in product design could be expanded from a national to international scale.
- Harmonized product standards - Limit values on HSLEEP concentrations in electronic products set by the EU and other regions could serve as models for international standards.
- Alternative technology incentives - Funding programs and R&D incentives that accelerate development of less toxic substitute materials and components could be replicated on a global scale.
- Public-private partnerships - Collaborations involving manufacturers, recyclers, researchers and governments that pioneer safer chemistry could be scaled up internationally.

- Industry certification programs - Existing ecolabels and certifications for reduced chemical footprints within electronic products could evolve into broader international standards.

6. Which sectors/value chains need to be closely involved in developing solutions? (*Multi-choice. Please visit the two-page factsheet on [Hazardous Substances within the Life cycle of Electrical and Electronic Products](#) for more information on the topic. If you select "Other", please elaborate your response*).

- Agriculture and food production
- ✓ Construction
- ✓ Electronics
- ✓ Energy
- ✓ Health
- Labour
- Pharmaceuticals
- ✓ Public, private, blended finance
- Retail
- Textiles
- ✓ Transportation
- ✓ Waste
- Other: _____

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? (*Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...*).

- WHO - As the UN agency focused on global public health, WHO has expertise regarding threats from chemicals used in consumer products. WHO could convene governments, manufacturers and chemical companies to develop international standards limiting HSLEEP risks, especially for sensitive groups.

- UNEP - As the UN's environmental authority, UNEP has a mandate to address pollution threats posed by emerging contaminants like HSLEEPS. Chemicals used in electronics already fall under UNEP's purview regarding the environment.

a. Which international agendas have important linkages with this issue of concern? (*Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

- Agriculture and Food
- ✓ Biodiversity
- Climate Change
- ✓ Health
- Human Rights
- ✓ Sustainable Consumption and Production

- World of Work*
 Other: _____

- b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

This issue has linkages to several international agendas:

1. The Sustainable Development Goals (SDGs):
 - SDG 3 on health and wellbeing
 - SDG 9 on industry, innovation and infrastructure
 - SDG 12 on responsible consumption and production

Reducing risks from HSLEEPs helps achieve these goals.

2. Agendas on a circular economy:

Transitioning to circular electronics requires minimizing exposure risks from HSLEEPs within products and e-waste streams.

3. The Minamata Convention:

This treaty aims to protect human health and the environment from mercury and other chemicals, some of which are HSLEEPs.

4. The Basel Convention:

This regulates transboundary movements of hazardous e-waste, covering some HSLEEP-containing materials.

5. Public health agendas:

WHO goals highlight the need for healthy environments with access to electronics while minimizing unnecessary chemical exposures including from HSLEEPs.

8. What priority level do you attach to this issue for international action?

- Very high*
 High
 Medium
 Low
 Very low

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct risk assessments - Review available data to identify which hazardous substances within the life cycle of electronics pose the greatest risks within your country based on uses, exposures and impacts. Identify major sources.

Restrict highest risk chemicals - Limit or ban uses of electronic product components and materials containing HSLEEPs found to present unreasonable threats based on the risk assessments. Focus on applications that have safer alternatives.

Invest in pollution reduction - Provide funding for initiatives to minimize releases of prioritized HSLEEPs from major sources like e-waste recycling facilities, waste incineration plants and industrial zones with heavy electronics manufacturing.

Provide incentives for safer design - Offer tax credits, grants and other financial incentives to encourage electronics manufacturers to transition away from using highest risk HSLEEPs in product design through material substitutions and optimized components.

Strengthen waste management requirements - Require best practices and advanced technologies for facilities handling e-waste to minimize exposures and releases of HSLEEPs. Strictly enforce these standards.

Improve reporting requirements - Mandate full disclosure of all intentionally added HSLEEP chemicals within electronic products sold on your national market from manufacturers. Make this data publicly available.

Develop an action plan - Create a comprehensive national strategy in collaboration with stakeholders that sets targets, policies and responsibilities for reducing risks from HSLEEPs while balancing the need for access to technology.

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct joint risk assessments - Pool available data across the region to identify key sources of HSLEEP pollution, priority substances of concern, and supply chains that transport electronics within the region.

Harmonize monitoring programs - Establish consistent protocols and data sharing mechanisms for monitoring releases of prioritized HSLEEPs from major sources like shared e-waste recycling facilities.

Fund collaborative research - Provide regional funding for research into alternatives to high-risk HSLEEPs through knowledge sharing platforms and collaborative grants.

Adopt harmonized standards - Negotiate and implement requirements limiting concentrations of prioritized HSLEEPs within electronics components/products traded within the regional market.

Develop best practice guidelines - Create recommended measures for the electronics industry and recycling sector to minimize HSLEEP pollution through optimized design, material substitutions and advanced waste management practices.

Provide technical support - Offer financial and technological assistance to least developed countries within the region to strengthen capacity for assessing risks from HSLEEPS, evaluating alternatives and complying with new standards.

Foster information exchange - Create platforms for stakeholders across the region to share challenges, case studies and lessons to accelerate progress through open knowledge sharing.

16. Highly hazardous pesticides (HHPs)

Screening Question - Highly hazardous pesticides (HHPs)

The FAO and WHO International Code of Conduct on Pesticide Management defines HHPs as: “Pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as the WHO or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or their listing in relevant binding international agreements or conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous”.

At ICCM4 in 2015, HHPs were identified as an issue of concern. In addition, among other actions, governments and other stakeholders supported “concerted action to address HHPs in the context of SAICM” and encouraged “relevant stakeholders to undertake concerted efforts to implement the strategy at the local, national, regional and international levels, with emphasis on promoting agroecologically-based alternatives and strengthening national regulatory capacity to conduct risk assessment and risk management, including the availability of necessary information, mindful of the responsibility of national and multinational enterprises”, and welcomed “the offer of the FAO, UNEP and WHO to develop modalities for international coordination in the context of the IOMC”

Please visit the two-page factsheet on [Highly Hazardous Pesticides](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Lead in Paint)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

The FAO and WHO International Code of Conduct on Pesticide Management defines HHPs as: “Pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as the WHO or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or their listing in relevant binding international agreements or conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous”.

At ICCM4 in 2015, HHPs were identified as an issue of concern. In addition, among other actions, governments and other stakeholders supported “concerted action to address HHPs in the context of SAICM” and encouraged “relevant stakeholders to undertake concerted efforts to implement the strategy at the local, national, regional and international levels, with emphasis on promoting agroecologically-based alternatives and strengthening national regulatory capacity to conduct risk assessment and risk management, including the availability of necessary information, mindful of the responsibility of national and multinational enterprises”, and welcomed “the offer of the FAO, UNEP and WHO to develop modalities for international coordination in the context of the IOMC”

Please visit the two-page factsheet on [Highly Hazardous Pesticides](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*.

Yes, I do agree that further international action may be necessary to adequately address risks from highly hazardous pesticides (HHPs):

- Complex supply chains: HHPs have global supply chains with many manufacturers and distributors. A coordinated, multinational approach is needed to effectively manage risks.
- Limited data: There are still significant uncertainties regarding the risks of some HHPs due to limited testing and disclosure, especially in developing countries. International collaboration could help fill these data gaps.
- Slow substitution: While safer alternatives exist for some HHPs, they have been slow to gain adoption. Stronger international policies may be required to accelerate the transition.

- Disproportionate impacts: Developing nations - which rely heavily on agriculture - struggle the most to assess and reduce risks from HHPs but would benefit from international support.
- Lack of isolated actions: Individual country restrictions on certain HHPs likely have limited effectiveness due to continued global supply chains and trade. Broader international strategies may therefore be needed.

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*. _____

- Coordinated monitoring - Implement harmonized programs across countries to detect, quantify and trace the presence and impacts of prioritized HHPs within agricultural product supply chains.
- Joint risk assessments - Conduct comprehensive reviews jointly pooling data and expertise from multiple nations to properly evaluate hazards, exposures and risks of prioritized HHPs.
- Restrictions on highest risk pesticides - Based on robust, transparent risk assessments, impose targeted limits or bans on uses of HHPs that pose unreasonable threats to human health or the environment, prioritizing chemicals lacking essential functions and with viable alternatives.
- Alternatives incentives - Provide resources to accelerate development, optimization and commercialization of safer substitutes for highest concern HHPs, especially in applications that currently lack viable alternatives.
- Transparent requirement - Mandate full disclosure of active ingredients, hazards, exposures and toxicity risks of pesticide products containing HHPs that are traded across borders.
- Technical support for at-risk regions- Provide financial and technical assistance to develop ecosystems capacity for assessing HHP risks, evaluating alternative pest management strategies and adopting safer chemicals and practices.

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions prepared by UNEP for more information on available options](#)).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers)*

- Options / guidance for economic instruments*
- ✓ *Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- ✓ *Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

Based on current data gaps regarding HHP risks, exposures and alternatives, I believe the most appropriate initial measures at an international level should be:

1. Coordinated monitoring programs - Fund and implement harmonized programs to detect and quantify the presence of HHPs within global agricultural supply chains. Focus initially on pesticide chemistries already identified as high priority due to hazardous properties.
2. Joint risk assessments - Conduct comprehensive reviews and analyses of hazards, exposures and risks of prioritized HHPs. These assessments should follow transparent methodologies leveraging data from multiple countries.
3. Restrictions on highest risk pesticides - Impose targeted limits on uses of HHPs found to pose the greatest threats based on risk assessments and availability of safer alternatives. Prioritize pesticides lacking essential functions and with viable substitutes.
4. Alternatives incentives - Provide support for research, development and commercialization of safer substitutes to highest risk HHPs, especially for applications that currently lack non-hazardous options.
5. Information sharing platforms - Create mechanisms for stakeholders to communicate challenges, case studies and best practices for safer substitution of HHPs within global supply chains.

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- ✓ *Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- ✓ *Difficulty with resource mobilisation*
- ✓ *Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- ✓ *Other: _____*

a. Please explain your response, including examples if possible: _____

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

Examples of initiatives on HHPs that could potentially be scaled up internationally include:

- Restrictions - Some countries have already restricted certain highly hazardous pesticides based on health and environmental concerns. Broader, harmonized restrictions could reshape global supply chains.
- Alternatives programs - Some nations provide funding incentives for research into safer substitutes for priority HHPs. Larger, international alternative development programs could accelerate safer options.
- Public-private partnerships - Collaborations involving crop protection companies, farmers groups, researchers and governments that develop less toxic pest management strategies could be expanded.
- Disclosure requirements - Some jurisdictions require pesticide manufacturers to report more detailed risk data and chemical contents. Harmonized, mandatory disclosure rules could accelerate safer substitution.
- Certification incentives - Programs that offer preferential market access or price subsidies for agricultural products not treated with HHPs could be initiated at a global scale.
- Best practice guidelines - Initiatives promoting integrated pest management and agroecology techniques to reduce pesticide use could be expanded from a national to international scale.

Restrictions, alternative incentives, public-private innovation programs, disclosure rules, certification systems, technical guidelines and education campaigns currently in place demonstrate approaches that could be formalized and expanded through international agreements to more sustainably manage risks from HHPs on a global scale.

6. Which sectors/value chains need to be closely involved in developing solutions? (*Multi-choice. Please visit the two-page factsheet on [Highly Hazardous Pesticides](#) for more information on the topic. If you select "Other", please elaborate your response*).

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? (*Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...*).

WHO - As the UN agency focused on global public health, WHO has expertise regarding threats from chemicals used in agriculture. WHO could convene governments, pesticide manufacturers and farmers groups to develop international standards limiting HHP risks, especially for vulnerable populations.

• FAO - As the UN agency focused on food and agriculture, FAO has a mandate to promote sustainable agricultural practices that minimize threats to farmers, consumers, biodiversity and the environment. Pesticides already fall under FAO's purview regarding agricultural production.

- a. Which international agendas have important linkages with this issue of concern? (*Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

- b. Please explain your response, including examples if possible. (*Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)*):

This issue has linkages to several international agendas:

1. The Sustainable Development Goals (SDGs):
 - SDG 2 on zero hunger
 - SDG 3 on health and wellbeing
 - SDG 12 on responsible consumption and production

Reducing risks from HHPs helps achieve these goals.

2. Agendas on sustainable agriculture:

Transitioning to more sustainable farming practices requires minimizing exposure risks from HHPs.

3. The Stockholm Convention:

This treaty aims to protect human health and the environment from persistent organic pollutants, some of which are HHPs.

4. Public health agendas:

WHO goals highlight the need for access to safe, effective pest management while minimizing unnecessary chemical exposures including from HHPs.

In summary, issues surrounding HHP risks align with sustainability, chemicals management and health frameworks aimed at:

- Reducing hazardous substance exposures
- Transitioning to sustainable agriculture
- Ensuring environmental protection
- Balancing need for effective pest control

8. What priority level do you attach to this issue for international action?

- Very high*
- High*
- Medium*
- Low*
- Very low*

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct risk assessments - Review available data to identify which pesticides pose the greatest risks within your country based on uses, exposures, impacts and availability of alternatives. Identify major sources.

Restrict highest risk pesticides - Limit or ban uses of pesticide active ingredients found to present unreasonable threats based on the risk assessments. Focus on applications that have safer alternatives.

Invest in integrated pest management - Provide funding for initiatives to scale up adoption of alternative pest control strategies like IPM, biological controls and manual weeding to minimize the need for HHPs.

Provide incentives for safer substitutes - Offer tax credits, price subsidies or other financial incentives to farmers and industry to transition away from using highest risk HHPs and adopt replacements identified through risk assessments.

Improve labeling requirements - Require full disclosure of active ingredients, toxicity risks and application instructions on pesticide product labels. Restrict misleading claims.

Develop an action plan - Create a comprehensive national strategy in collaboration with stakeholders that phases out HHP uses that present intolerable risks while balancing the need for effective pest control.

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conduct joint risk assessments - Pool available data across the region to identify key sources of HHP pollution, priority pesticide active ingredients of concern, and supply chains that transport crop protection products within the region.

Harmonize monitoring programs - Establish consistent protocols and data sharing mechanisms for monitoring residues of prioritized HHPs in food and the environment shared across the region.

Fund collaborative research - Provide regional funding for research into safer alternatives to high-risk HHPs through knowledge sharing platforms and collaborative grants.

Adopt harmonized standards - Negotiate and implement restriction policies or limits on uses of HHPs prioritized for action that are traded within the regional market.

Develop best practice guidelines - Create recommended integrated pest management strategies and guidelines for the agricultural industry to minimize HHP use.

Provide technical support - Offer financial and technical assistance to least developed countries within the region to strengthen capacity for assessing HHP risks, evaluating alternatives and adopting safer options.

Foster information exchange - Create platforms for stakeholders across the region to share challenges, case studies and lessons learned to accelerate progress together through open knowledge sharing.

17. Lead in paint

Screening Question - Lead in paint

Lead is a multi-system toxicant for which no safe level of exposure has been identified. Exposure to lead can cause chronic and debilitating health impacts in all age groups, and children are particularly vulnerable to its neurotoxic effects. The widespread use of lead has caused extensive environmental and human exposure across the globe. One major source of exposure, particularly for children, is through “lead paint”, or paint to which lead compounds have been added as pigments, drying agents or anti-corrosives.

Among others, “Lead in Paint” was recognized as an issue of concern under the second session of the International Conference on Chemicals Management (ICCM2) in 2009. The ICCM2 also endorsed the establishment of an international partnership, the Global Alliance to Eliminate Lead Paint (GAELP), to assist in phasing out lead paint worldwide. The GAELP aims to have all countries adopt “legally binding laws, regulations, standards and/or procedures to control the production, import, sale and use of lead paints with special attention to the elimination of lead decorative paints and lead paints for other applications most likely to contribute to childhood lead exposure” and to have all paint manufacturers eliminate “the use of added lead compounds in priority areas” by 2020.

Please visit the two-page factsheet on [Lead in Paint](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Nanotechnology and manufactured nanomaterials)*

- Yes
- No, I do not know enough about this issue*
- No, this issue is not relevant to my country or institution*
- No, other*

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Lead in paint

Lead is a multi-system toxicant for which no safe level of exposure has been identified. Exposure to lead can cause chronic and debilitating health impacts in all age groups, and children are particularly vulnerable to its neurotoxic effects. The widespread use of lead has caused extensive environmental and human exposure across the globe. One major source of exposure, particularly for children, is through “lead paint”, or paint to which lead compounds have been added as pigments, drying agents or anti-corrosives.

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Please visit the two-page factsheet on [Lead in Paint](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*. _____

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding
- Soft law
- Information sharing and awareness/ Voluntary initiatives
- No international actions are needed
- Other: _____.

a. Please explain your response, including examples if possible*. _____

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Lead in Paint](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

8. What priority level do you attach to this issue for international action?

- Very high*

- High
- Medium
- Low
- Very low

9. Is there any priority further work you would like to suggest at the national level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

10. Is there any priority further work you would like to suggest at the regional level*? *(Open space to elaborate. Please share a weblink to the suggestion(s) if available).*

18. Nanotechnology and manufactured nanomaterials

Screening Question - Nanotechnology and manufactured nanomaterials

While no definition has been internationally agreed upon, nanomaterials are commonly defined as materials having at least one external or internal dimension between 1 and 100 nm.

Nanotechnology, i.e. the manipulation of matter at the nanometre scale, has rapidly developed in the past few decades and led to the widespread presence of nanomaterials in consumer products and industrial applications.

Despite multiple benefits associated with the technology, concerns have emerged regarding potential risks posed by manufactured nanomaterials to human health and the environment. In light of these concerns “Nanotechnology and manufactured nanomaterials” was designated an emerging policy issue at the second session of the ICCM in 2009. Stakeholders stressed the need to close knowledge gaps; to understand, avoid, reduce and manage risks; and to review the methods used for testing and assessing safety.

Please visit the two-page factsheet on [Nanotechnology and manufactured nanomaterials](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the next issue of concern, Per- and polyfluoroalkyl substances (PFASs))*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

Technical Questions - Nanotechnology and manufactured nanomaterials

While no definition has been internationally agreed upon, nanomaterials are commonly defined as materials having at least one external or internal dimension between 1 and 100 nm.

Nanotechnology, i.e. the manipulation of matter at the nanometre scale, has rapidly developed in the past few decades and led to the widespread presence of nanomaterials in consumer products and industrial applications.

Despite multiple benefits associated with the technology, concerns have emerged regarding potential risks posed by manufactured nanomaterials to human health and the environment. In light of these concerns “Nanotechnology and manufactured nanomaterials” was designated an emerging policy issue at the second session of the ICCM in 2009. Stakeholders stressed the need to close knowledge gaps; to understand, avoid, reduce and manage risks; and to review the methods used for testing and assessing safety.

Please visit the two-page factsheet on [Nanotechnology and manufactured nanomaterials](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*. _____

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding*
- Soft law*
- Information sharing and awareness/ Voluntary initiatives*
- No international actions are needed*
- Other: _____.*

a. Please explain your response, including examples if possible*. _____

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Nanotechnology and Manufactured Nanomaterials](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

8. What priority level do you attach to this issue for international action?

- Very high*
- High*

Medium

Low

Very low

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

19. Per- and polyfluoroalkyl substances (PFASs)

Screening Question - Per- and polyfluoroalkyl substances (PFASs)

The PFAS family is composed of thousands of synthetic organic chemicals that contain at least one perfluorocarbon moiety (e.g. –CF₂–) in their molecular structures. These substances have been widely used in numerous commercial and consumer applications since the late 1940s.

Since the late 1990s and early 2000s, studies have been conducted to assess some “long-chain” PFASs. Their findings resulted in the listing of perfluorooctanesulfonic acid (PFOS) and its precursors under the Stockholm Convention in 2009. That same year, at ICCM2, SAICM stakeholders identified “managing PFASs and the transition to safer alternatives” as an issue of concern. A resolution by ICCM2 further invited intergovernmental organisations, governments and other stakeholders “to consider the development, facilitation and promotion in an open, transparent and inclusive manner of national and international stewardship programmes and regulatory approaches to reduce emissions and the content of relevant perfluorinated chemicals of concern in products and to work toward global elimination, where appropriate and technically feasible”

Please visit the two-page factsheet on [Per- and polyfluoroalkyl substances \(PFASs\) and the transition to safer alternatives](#) for more information on the topic.

1. **Entry question:** Would you like to provide responses on this issue of concern? *(Please select only 1 option below. If you select a "No" option, you may move to the Conclusion page)*

- Yes
- No, I do not know enough about this issue
- No, this issue is not relevant to my country or institution
- No, other

- a. If you selected "No, other" in the previous question, please elaborate here:

The PFAS family is composed of thousands of synthetic organic chemicals that contain at least one perfluorocarbon moiety (e.g. –CF₂–) in their molecular structures. These substances have been widely used in numerous commercial and consumer applications since the late 1940s.

Since the late 1990s and early 2000s, studies have been conducted to assess some “long-chain” PFASs. Their findings resulted in the listing of perfluorooctanesulfonic acid (PFOS) and its precursors under the Stockholm Convention in 2009. That same year, at ICCM2, SAICM stakeholders identified “managing PFASs and the transition to safer alternatives” as an issue of concern. A resolution by ICCM2 further invited intergovernmental organisations, governments and other stakeholders “to consider the development, facilitation and promotion in an open, transparent and inclusive manner of national and international stewardship programmes and regulatory approaches to reduce emissions and the content of relevant perfluorinated chemicals of concern in products and to work toward global elimination, where appropriate and technically feasible”

Please visit the two-page factsheet on [Per- and polyfluoroalkyl substances \(PFASs\) and the transition to safer alternatives](#) for more information on the topic.

Please answer the questions below that are relevant to your organization/ country/ region:

1. Do you agree with the assessment report that further international action is necessary*? *(If you select "No", you are welcome to answer the questions below or you may proceed directly to question 9)*

- Yes
- No
- Do not know

a. Please provide a brief explanation for your response*. _____

2. What types of international actions should be taken? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Legally binding
- Soft law
- Information sharing and awareness/ Voluntary initiatives
- No international actions are needed
- Other: _____.

a. Please explain your response, including examples if possible*. _____

3. Which type of approach or measure would you see as appropriate to address this issue at the international level? *(Multiple answers based on the catalogue of action, Please refer to the [catalogue of international actions](#) prepared by UNEP for more information on available options).*

- Regulatory control measures*
- Information based and enforcement tools (such as Scientific and technical and guidelines, Guidelines and tools for enforcement, Awareness tools (including of consumers))*
- Options / guidance for economic instruments*
- Voluntary measures and approaches: (such as Guidelines, principles and strategies)*
- Measures supporting science-based knowledge and research*
- Other: _____*

a. Please explain your response, including examples if possible: _____

4. What factors prevent action/progress on addressing the issue in your country/ organization *(Multiple answers based on list below)?*

- Lack of technical capacity*
- Lack of scientific knowledge*
- Difficulties in sharing knowledge and coordinating action among different stakeholders and across sectors*
- Difficulty with resource mobilisation*
- Lack of economically feasible green and sustainable alternatives*
- Only coordinated international action can address the issue (e.g., due to transboundary effects, or prevalence of chemicals in international trade)?*
- None, there are no factors preventing action or progress*
- Other: _____*

a. Please explain your response, including examples if possible: _____

5. Can you point to existing initiatives that could be replicated or scaled up at the international level? *(Open space answer. Please share a weblink to the initiative(s) if available).*

6. Which sectors/value chains need to be closely involved in developing solutions? *(Multi-choice. Please visit the two-page factsheet on [Per- and polyfluoroalkyl substances \(PFASs\)](#) for more information on the topic. If you select "Other", please elaborate your response).*

- Agriculture and food production*
- Construction*
- Electronics*
- Energy*
- Health*
- Labour*
- Pharmaceuticals*
- Public, private, blended finance*
- Retail*
- Textiles*
- Transportation*
- Waste*
- Other: _____*

7. Which international forum or instrument would be best placed to take the lead on international action on this issue? *(Open space to elaborate. Please provide specific examples of e.g., intergovernmental bodies, multilateral agreements within or outside the chemicals and waste cluster, international instruments...).*

a. Which international agendas have important linkages with this issue of concern? *(Multiple answers based on list below. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

- Agriculture and Food*
- Biodiversity*
- Climate Change*
- Health*
- Human Rights*
- Sustainable Consumption and Production*
- World of Work*
- Other: _____*

b. Please explain your response, including examples if possible. *(Open space question. For more information, please see the [UNEP assessment paper on linkages with other clusters related to chemicals and waste](#)):*

8. What priority level do you attach to this issue for international action?

- Very high*
- High*

Medium

Low

Very low

9. Is there any priority further work you would like to suggest at the national level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

10. Is there any priority further work you would like to suggest at the regional level*? (*Open space to elaborate. Please share a weblink to the suggestion(s) if available.*)

Conclusion:

Thank you for having reached this point in the form. You are now on the last page. Below are a final set of questions covering all 19 issues of concern.

GCO-II issues:

[Arsenic](#) | [Cadmium](#) | [Glyphosate](#) | [Lead](#) | [Microplastics](#) | [Neonicotinoids](#) | [Organotins](#) | [Phthalates](#) | [Polycyclic Aromatic Hydrocarbons \(PAHs\)](#) | [Triclosan](#) | [Bisphenol A \(BPA\)](#)

List of SAICM issues:

[Chemicals in products \(CiP\)](#) | [Endocrine-disrupting chemicals \(EDCs\)](#) | [Environmentally Persistent Pharmaceutical Pollutants \(EPPPs\)](#) | [Hazardous substances within the life cycle of electrical and electronic products \(HSLEEP\)](#) | [Highly hazardous pesticides \(HHPs\)](#) | [Lead in paint](#) | [Nanotechnology and manufactured nanomaterials](#) | [Per- and polyfluoroalkyl substances \(PFASs\) and the transition to safer alternatives](#)

Please submit your completed form via email by **15/08/2023** COB Central European time (CET).

1. From the list of 19 issues, which issue(s) do you think is/are the most urgent? *(Multiple options from the list of 19 issues)*

- [Arsenic](#)
- [Bisphenol A \(BPA\)](#)
- [Cadmium](#)
- [Glyphosate](#)
- [Lead](#)
- [Microplastics](#)
- [Neonicotinoids](#)
- [Organotins](#)
- [Phthalates](#)
- [Polycyclic Aromatic Hydrocarbons \(PAHs\)](#)
- [Triclosan](#)
- [Chemicals in products \(CiP\)](#)
- [Endocrine-disrupting chemicals \(EDCs\)](#)
- [Environmentally Persistent Pharmaceutical Pollutants \(EPPPs\)](#)
- [Hazardous substances within the life cycle of electrical and electronic products \(HSLEEP\)](#)
- [Highly hazardous pesticides \(HHPs\)](#)
- [Lead in paint](#)
- [Nanotechnology and manufactured nanomaterials](#)
- [Per- and polyfluoroalkyl substances \(PFASs\) and the transition to safer alternatives](#)

a. Please explain your response. *(Open space to elaborate).*

2. From the list of 19 issues, which issue(s) is/are the most actionable? *(Multiple options from the list of 19 issues)*

- Arsenic
- Bisphenol A (BPA)
- Cadmium
- Glyphosate
- Lead
- Microplastics
- Neonicotinoids
- Organotins
- Phthalates
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Triclosan
- Chemicals in products (CiP)
- Endocrine-disrupting chemicals (EDCs)
- Environmentally Persistent Pharmaceutical Pollutants (EPPPs)
- Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)
- Highly hazardous pesticides (HHPs)
- Lead in paint
- Nanotechnology and manufactured nanomaterials
- Per- and polyfluoroalkyl substances (PFASs) and the transition to safer alternatives

b. Please explain your response. *(Open space to elaborate).*

3. Are there any other observations you wish to note? *(Open space to elaborate).*