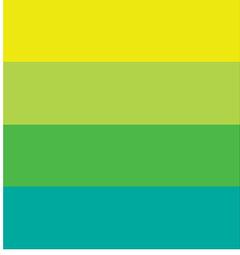


Chemicals and waste and the Sustainable Development Goals of the Agenda 2030

Position paper



Swedish Society
for Nature Conservation



Foreword

In September 2015, the world leaders adopted the "Agenda 2030 for Sustainable Development" and its 17 global goals, which for the first time tie together the ambitions of social, economic and environmentally sustainable development. The uniqueness of the global goals is also that they are universal. This means that the countries' commitments to achieve the goals should both happen at home and at the global level.

The Swedish government has announced that Sweden will be a leader in the implementation of the Agenda 2030. This ambition is excellent but also requires lots of commitments. Despite the progress that has been made globally over the last decades, the world is facing major challenges, not the least in the environmental field. The government has also announced that the Agenda 2030 work will be linked to Sweden's coherence policy, formulated in the bill on Shared responsibility - Sweden's policy for global development. This puts high demands on cooperation and integration between the various policy areas.

The Swedish Society for Nature Conservation (SSNC) welcomes the global goals as a comprehensive and ambitious policy framework for the world's overall sustainability and development work. The 17 goals and 169 targets create a common challenge for all of us to work with, with 2030 in sight.

The role of SSNC in the work with the Agenda 2030 will take place both on the global, national and local levels. Several of our partner organisations around the world contribute in various ways to the work with the global goals, something which we will support and collaborate around. In Sweden, SSNC wants to both contribute by mobilizing and motivating the people's movement to work with the goals in the local context, but also by influencing the government to take the role as a leader in the transition. SSNC has therefore produced position papers for six of the global goals, as well as for the cross-cutting issue of harmful chemicals, all of which have clear connections to the association's work. The purpose of the papers is to show how we position ourselves with respect to the respective goals, and to emphasise what we believe are particularly importance aspects for achieving the goals.



1. Background

Chemicals are indispensable to a sustainable economy and welfare, but need to be managed properly throughout their life cycles, as individual chemicals, mixtures or in products.

Considerable societal costs are connected to contamination of the environment by hazardous chemicals. Examples of this are irreversible impacts on ecosystems, loss of biodiversity and associated ecosystem services, negative health effects, loss of aesthetic, cultural and recreational values, as well as climate change¹. (Examples of climate change impacting chemicals are carbon dioxide, methane, ozone, di-nitrogen oxide, nitrogen tri-fluoride, sulphur hexafluoride, fluorocarbons and per-fluorocarbons.²) There are yet few monetary estimates of economic losses linked to illness from mismanagement of chemicals, but those that are available point to considerable societal costs^{1,3,4,5}. Poor health leads to health costs, sick leaves and even inability to work, potentially lowering the productivity in the economy. It also undermines a way out of poverty for many people in low income countries.

The issue of chemical safety has no specific goal in the Agenda 2030, rather is of importance for the fulfilment of a number of global goals. SSNC is of the opinion that sustainable management and use of chemicals is pivotal for achieving at least 22 of the targets to 11 of the global goals.

Furthermore, SSNC believed that the transition to a circular economy is an important instrument to reach several of the goals, but that items containing hazardous chemicals must be excluded from the circulation. Here the EU, which already has started the transition of the economy into a circular one, may act as a model and inspiration for other countries/regions, if the interface between the chemical-, product- and waste legalisations is adjusted in a proper way. Also, the successor to the UN Strategic Approach to International Chemicals Management (SAICM) after 2020, could act as a global instrument to secure a safe circular economy, since the conventions and protocols addressing hazardous chemicals today are insufficient.

2. Recommendations related to the Sustainable Development Goals with associated targets

This section explains the SSNC's view on what is required, from the perspective of chemicals management, to achieve the various goals and objectives of Agenda 2030. The account is followed by important action for the Swedish government to take. Many of them are universal for the targets.



1:5 This target aims to reduce people's vulnerability and vulnerability to environmental shocks and disasters, including from chemicals. The chemical management of both countries and the industry has to improve, for example by establishing national resource centres for management of chemicals and chemicals accidents. Also, regulatory requirements are needed for transparency of hazardous chemical contents of products, and mandatory information sharing between actors in the supply chain throughout the lifecycle of the products. This is a prerequisite for a safe circular economy where materials free from hazardous chemicals are reused and recycled, and residual wastes are managed in a safe way. The prioritised targets in the UN chemicals strategy Strategic Approach to Chemicals Management (SAICM)⁶, reflect these issues. The society will then be better equipped to reach goal 1:5.



2:1 The target is about securing safe food. The amount of hazardous substances in food has to be reduced, by reducing the overall distribution of hazardous substances to nature from industries, transports, energy production, waste and waste water treatment plants. This is preferably done by strengthened legislation and supervision of compliance, and by implementation of international conventions. Furthermore, agriculture has to change to sustainable production methods without hazardous pesticides.

2:4 The target calls for sustainable and resilient agricultural practises. It is possible to produce more food both in Sweden and globally, provided that it is done with more efficient production methods in combination with environmental and social concerns. The Food and Agricultural Organization (FAO) is of the opinion that organic farming under the right conditions has the potential to feed the world⁷. To reduce the discharge of hazardous pesticides to the environment, the agriculture has to change to organic production according to agro-ecological principles. Also, the leakage of nitrogen and phosphor from agriculture need to decrease.



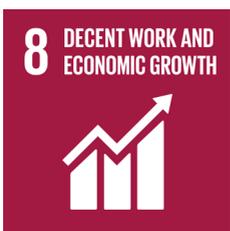
3:9 The target is about reducing the number of deaths and illnesses from hazardous chemicals in air, water, and soil. To achieve this, the amount of harmful chemicals spread from industries, transport, energy- and food- production, waste and waste water treatment plants to nature has to reduce. This is preferably done by strengthened legalisation and supervision of compliance, and by implementation of international conventions.



6:3 The target is about ensuring access to clean drinking water. To achieve this, the amount of harmful chemicals spread from industries, transport, energy- and food- production, waste and waste water treatment plants to nature has to reduce. This is preferably done by strengthened legalisation and supervision, and by implementation of international conventions.



7:1, 7:2 and 7:3 The targets call for access to clean and effective energy for everyone. Chemicals here have a central role, as fuel or active components in energy transformation and transfer processes. A change to sustainable and efficient energy sources without hazardous chemicals, or where they are handled in a safe way, is essential. Industries and energy plants have to upgrade to cleaner technologies.



8:1, 8:2, 8:3, 8:4 and 8:8 The targets are about ensuring continued economic growth, while decreasing the dependence on virgin raw materials, and safer working conditions. A transition to a circular economy where harmful chemicals are phased out is essential. Raw materials, processing chemicals, water and energy can be saved, leading to less polluting activities, as well as partly decoupling economic growth from resource extraction/production and associated environment degradation. A circular economy can also create new job opportunities, and thereby economic growth, and has the potential to incorporate now informal material recycling businesses in low- and mid-income countries. At the same time, the rights of the workers have to be strengthened, and a safe and secure occupational environment be promoted by strengthening occupational safety legalisation, for example when it comes to management of hazardous chemicals.



9:2 and 9:4 The targets are about transitioning to more sustainable and resource efficient production, while economic growth continues. Sustainable industrialisation through circular economy where harmful chemicals are phased out is a key part of the solution. This can be achieved by upgrading industries with cleaner technologies, and renewable material- and energy resources.



11:6 The target addresses reduced environmental degradation from cities. This is supported by waste management, sorting and recycling systems. A circular economy, where materials with harmful chemicals are sorted out in the recycling process, is a key part of the solution. It is also necessary for public transport systems and energy production to convert to renewable energy sources, and for industries to upgrade to cleaner technologies.



12:4 and 12:6 The targets are about creating sustainable chemicals management with a life cycle perspective. All global and regional chemical conventions need to be fully implemented as soon as possible: the Stockholm and the Minamata Conventions to eliminate persistent organic pollutants (POPs) and mercury from the society, and to handle and eliminate these with the best available technology, the Basel Convention to prevent dumping of hazardous chemicals and waste in countries lacking suitable infrastructure, the Vienna Convention with the associated Montreal Protocol, to protect the ozone layer, and the IMO convention to stop marine pollution by dumping of waste at sea.

Legalisation and administration systems have to be in place to fulfil the eleven core targets in SAICMs Overall Orientation Guidance Document for the 2020 goal about a sustainable chemical management. By switching to a circular economy, where harmful chemicals are phased out, materials can be reused and recycled without endangering human health or the environment. This requires full transparency about the chemical content in all constituent components in products, throughout the supply chain, to the consumers and all the way to those taking care of the waste. Full transparency about the chemical content in all constituent components in products will also make substitution easier.

The international community also has to investigate the opportunity of using what is to replace SAICM after year 2020 as an instrument to regulate chemicals now being excluded from regulation. One solution might be a legally binding protocol in a still overall voluntary framework. Trade is globalised and substances of concern that are not regulated by conventions, but are present in consumer products, need to be regulated globally in another way. Also, money has to be earmarked for research about “sustainable” and “green chemistry”, for example for developing non-toxic and bio-degradable chemicals from renewable sources.



14:1 and **14:3** The targets deal with overcoming pollution, waste and ocean acidification. To achieve this, the amount of harmful chemicals spread from industries, transport, energy- and food- production, waste and waste water treatment plants to nature has to reduce. This is preferably done by strengthened legalisation and supervision of compliance, and by implementation of international conventions. Reduced ocean acidification can also be reached by transition to a circular economy that minimises the carbon dioxide burden (which is acidifying).



15:1 and **15:5** The targets concern protection of ecosystem integrity and restoration of degraded ecosystems. To reach the goal, contaminated land and aquatic environments have to be restored. Furthermore, the amount of harmful chemicals spread from industries, transport, energy- and food- production, waste and waste water treatment plants to nature has to reduce. This is preferably done by strengthened legalisation and supervision of compliance, and by implementation of international conventions. A safe circular economy is a key part of the solution.

To achieve the above targets on sustainable chemical management, SSNC recommends the Swedish Government to:

- Accelerate implementation of the REACH legalisation and international chemical agreements.
- Work for the EU to use even more ambitious requirements than the minimum defined by international chemical agreements.
- Strive for the REACH-, waste- and product legalisations to be adapted in the best way possible to support a circular economy where harmful chemicals are phased out.
- Work for the EU to establish requirements for full transparency on the chemical content in products components, throughout the supply chain, all the way to the recycling industry.
- Promote further development of the RoH's directive.
- Accelerate the transition to organic farming according to agro-ecological principles.
- Design political instruments based on the "polluter pays principle", for example differentiated taxes for pesticides where the hazardous are more heavily taxed.
- Strive for all use of pesticides by the agricultural business to follow the FAO Code of Conduct for Pesticides⁸.
- Advocate for and reward innovations and technological upgrading resulting in the use of less harmful chemicals, for example by tax instruments.
- Transform the economy to a circular economy where harmful chemicals are phased out.
- Strive for the successor to SAICM after year 2020 to include legally binding protocols for transparency of highly hazardous chemicals in products, and highly hazardous pesticides respectively.
- Earmark funds to research about "sustainable" and "green chemistry", for example for developing non-toxic and bio-degradable chemicals from renewable sources.
- Increase the Swedish aid and assistance for construction of chemical management systems, in line with the priorities in SAICM's guiding document towards the 2020-goal and to implementation of international chemical agreements.
- Increase the Swedish aid and assistance for the establishment of municipal and other waste management, sorting and recycling systems, and for integrating now informal recycling activities into formal structures, in an inclusive way where the right to jobs for the informal workers is secured.
- Give Swedish aid and assistance for development of national management strategies for plastics, to better support the inclusion of plastics into a circular economy, promotion of the use the right type of plastics for specific applications, and reduction of the overall plastic usage.
- Assist with funding and "know-how" about sustainable and cleaner technologies, to low- and mid-income countries, not the least to Africa and the least-developed countries.

Notes

1. UNEP 2013, The cost of Inaction on the Unsound Management of Chemicals (http://drustage.unep.org/chemicalsandwaste/sites/unep.org.chemicalsandwaste/files/publications/Costs_of_Inaction.pdf).
2. Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.), 2007. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf).
3. Gold, E., 2009. Childhood lead poisoning: conservative estimates of the social and economic benefits of lead hazard control. *Environmental Health Perspectives* 117, 1162-1167 (<https://ehp.niehs.nih.gov/wp-content/uploads/117/7/ehp.0800408.pdf>).
4. HEAL, 2014. Health costs in the European Union. How much is related to EDCs? (http://www.env-health.org/IMG/pdf/18062014_final_health_costs_in_the_european_union_how_much_is_realted_to_edcs.pdf).
5. Hou, Q., An, X., Tao, Y, Sun, Z., 2016. Assessment of resident's exposure level and health economic costs of PM10 in Beijing from 2008 to 2012. *Science of the Total Environment* 563-564, 557-565.
6. 1:5, 2:1, 2:4, 3:9, 6:3, 7:1, 7:2, 7:3, 8:1, 8:2, 8:3, 8:4, 8:8, 9:2, 9:4, 11:6, 12:4, 12:6, 14:1, 14:3, 15:1 och 15:5.
7. SAICM Overall Orientation and Guidance Document (<http://www.saicm.org/Portals/12/documents/meetings/ICCM4/doc/K1501995%20SAICM-ICCM4-6-e.pdf>).
8. FAO opinion on organic farming (<http://www.fao.org/organicag/oa-faq/oa-faq7/en/>).
9. Stockholm Convention (<http://www.pops.int/>)
10. Minamata Convention (<http://mercuryconvention.org/>)
11. Persistenta organiska föreningar
12. Basel Convention (<http://www.basel.int/>)
13. Vienna Convention on the Protection of the Ozone Layer (<http://ozone.unep.org/en/handbook-vienna-convention-protection-ozone-layer/2205>)
14. Montreal Protocol (<http://www.ozone.unep.org/en/treaties-and-decisions/montreal-protocol-substances-deplete-ozone-layer>)
15. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (<http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Convention-on-the-Prevention-of-Marine-Pollution-by-Dumping-of-Wastes-and-Other-Matter.aspx>)
16. Definition of sustainable chemistry (<http://www.oecd.org/env/ehs/risk-management/sustainablechemistry.htm>).
17. 12 principles of green chemistry (<https://www.acs.org/content/acs/en/greenchemistry/what-is-green-chemistry/principles/12-principles-of-green-chemistry.html>)
18. FAO International Code of Conduct on Pesticide Management (http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Code_ENG_2017updated.pdf).
19. Highly Hazardous Pesticides identifierade enligt kriterier framtagna av FAO/WHO 2008 och nu i FAO International Code of Conduct on Pesticide Management. Dessa kan inte kvalificera sig för Stockholms-konventionen, men har allvarliga hälso- och miljöeffekter.

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