The UN Environment Programme (UN Environment) welcomes the opportunity to make a submission to the Office of the UN High Commissioner on Human Rights on the Human Rights Council Resolution 35/23.

Environment, health, human rights and the SDGs

The right to health creates a conducive environment for the exercise of other human and environmental rights, and the achievement of the Sustainable Development Goals. The vision of the 2030 Agenda is ambitious and transformational, pledging to leave no one behind. In their structure, the Sustainable Development Goals are universal, affecting everyone, everywhere. They aim to address inequalities amongst countries and all groups of the population – especially children, women and the impoverished. They address human rights and well-being (including both physical and mental health) through a common understanding that a healthy environment is integral to the full enjoyment of basic human rights, including the rights to life, health, food, water and sanitation, and quality of life.

The degradation of our environment has been estimated to be responsible for at least 23 percent of all deaths globally, but these estimates do not take into account the effects of emerging global environmental changes. Pollution poses a direct threat to respecting, protecting and promoting human rights and gender equality, international human rights obligations related to health, life, food and water, safeguarding a healthy and sustainable environment for present and future generations, and achieving the 2030 Agenda's pledge to "leave no one behind".

The 2030 Agenda for Sustainable Development offers a great opportunity to enhance and accelerate action to tackle pollution. Pollution prevention, control and reduction will also create multiple opportunities for achieving the Sustainable Development Goals in a mutually beneficial manner.
Directly tackling the interlinkages between the environment and human health presents new and interwoven key opportunities to meet these Goals in a more cost-effective and beneficial manner. To "ensure healthy lives and promote well-being for all at all ages" (Goal 3) – which includes a specific target related to air, water and soil quality and exposure to chemicals – cannot be achieved over the long term without explicit action on terrestrial ecosystems (Goal 15), oceans (Goal 14), cities (Goal 11), water and sanitation (Goal 6), energy (Goal 7), climate change (Goal 13), sustainable consumption and production patterns (Goal 12) as well as on equality (Goal 10), gender equality (Goal 5), education (Goal 4), peace, justice and strong institutions (Goal 16), as well as partnerships, technology and finance (Goal 17). Investments in preserving, improving or restoring environmental quality can bring out positive interactions and be catalytic, avoiding contradictions among sector strategies and delivering multiple benefits across all goals for enhanced well-being and quality of life.

The following graphic indicates the connection between SDG 3 on health and the environment for each SDG (also attached).

Figure 1 Sustainable Development Goals and targets: deconstructing environmental sustainability for health and well-being

Under Goal 3 on health and well-being, one target (Target 3.9) is central, requiring that by 2030 we "substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination". Human health and the environment are compromised by the mismanagement of chemicals and waste, which form a fundamental obstacle to the achievement of sustainable development. This is strongly linked to how we produce and consume (Goal 12) and our

ability to reduce resource degradation, pollution and waste. Indeed, environmental impacts and pollution cannot be effectively mitigated unless raw material inputs into production and consumption systems are decreased, since the magnitude of what goes into these systems determines the final waste and emissions released to the environment.

Target 6.3 under Goal 6, which aims to improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials could significantly reduce the number of deaths from diarrhoeal diseases;

Addressing air pollution is also particularly relevant to target 3.4 on non-communicable diseases: in 2012, according to the World Health Organization own figures, an estimated 6.5 million deaths (11.6% of all global deaths) were associated with indoor and outdoor air pollution together. 94% are due to noncommunicable diseases – notably cardiovascular diseases, stroke, chronic obstructive pulmonary disease and lung cancer. Air pollution also increases the risks for acute respiratory infections. Solutions to air pollution include clean modes of transport, increased use of non-motorised transport, clean household fuel, waste burning bans, and energy efficiency including in industrial practices. Promoting physical activity, promoting access to nature, the use of non-motorised transport are both good for health, and good for the environment.

Vulnerability

Vulnerability to environment and health inequities are linked to many social and economic factors: the social and economic position of individuals, in relation to social class, age, gender and ethnicity, as well as education, occupation, livelihood and income levels. These factors determine where people live, what they eat, how and when in the life cycle they are exposed to pollution, and what options they have to change their conditions. Poor people, children and the elderly are particularly at risk. The social and economic groups that are vulnerable to environmental impacts often also suggest an environmental injustice at play, as it is often the rich who benefit from the activities that create the degradation and it is the poor and vulnerable groups who are most affected. Poor air quality is especially burdensome on the poor, women, and children. Indoor air quality affects women and children as they are exposed to fumes from cooking, and outdoor air pollution affects the poor who are unable to protect themselves by moving around in cars or by means of other protection, and those who make a living on the streets such as street hawkers.

Gender inequality with regards to environment-related health burdens are exacerbated by differential exposures and vulnerabilities to diseases, disabilities and injuries. Men are overall slightly more affected by the environment than women (with 22.8 per cent of male deaths, as compared to 20.6 per cent of female deaths, being attributable to the environment). Women, however, tend to bear higher exposure from household air pollution while men are more exposed to occupational risks, the employed percentage of men being globally about 50 per cent higher than that of women.
Children are particularly susceptible to the negative health impacts of their degraded or unsafe environment. While 23 per cent of all deaths globally are linked to environmental factors, the share rises to 26 per cent for children under the age of 5 (figure 10). Almost one third (30 per cent) of all deaths from foodborne diseases affect children under the age of five, despite the fact that they

make up only 9 per cent of the global population.[1] Diarrhoeal diseases in children because of poor sanitation result in reduced nutritional absorption, which may in turn cause stunting, cognitive setbacks and lower school performance, affecting economic earnings later in life.[2] It is estimated that a mother can pass as much as 33 per cent of her chemical body burden to her child.[3] In addition, as a result of their rapid growth and development and greater exposure relative to body weight, foetuses and children are particularly affected by exposure to chemicals and pollutants.

The world's poorest 3.5 billion people tend to rely directly on the environment for their basic needs, such as water, food and shelter. The degradation of these ecosystem services affects the poorest most as they have no alternatives. Climate change impacts add to this vulnerability, having different effects on the already endangered livelihoods and the safety of both men and women, as a result of the further reduced quantity and quality of water and sanitation, degradation of the soil, emerging and re-emerging diseases, loss of lives and properties in natural disasters, and forced or voluntary migration.[4] Over half a billion children live in extremely high flood occurrence zones, and nearly 160 million children live in areas of high, or extremely high, drought severity.[5] Many poor countries are also particularly vulnerable to climate change impacts as are some indigenous groups, peasants and pastoralists.

Communities that are dependent on degraded landscapes – including overgrazed, heavily deforested, drought-prone, desertified and severely eroded lands – are exposed to famine, loss of shelter and medicinal plants and are also highly vulnerable to slow-onset disasters. The poorest can become trapped in a chronic pattern of poor well-being associated with living in degraded environments, or be forced to migrate to rapidly urbanized areas or refugee camps. By the end of 2014, there were 56 million refugees and internally displaced people.[6] The growing understanding of the links between environmental degradation, conflicts over natural resources, climate change and migration and well-being has now become the focus of recent policy dialogues[7] and is captured in the Sustainable Development Goals.[8]

[1] World Health Organization, *WHO estimates of the global burden of foodborne diseases: foodborne disease burden epidemiology reference group 2007–2015* (Geneva, 2015). Available from http://www.who.int/foodsafety/publications/foodborne_disease/fergreport/en/.

[2] United Nations Children's Fund, "Sustainable development starts with safe, healthy and well-educated children", (2013).

[3] United Nations Development Programme/Global Environment Facility, "Chemicals and waste management for sustainable development", (2015).

[4] Alam, M., Bhatia, R. and Mawby, B., "Women and Climate Change, Impact and agency in human rights, security, and economic development", (Georgetown Institute for Women, Peace and Security, 2015). Available from https://giwps.georgetown.edu/sites/giwps/files/Women%20and%20Climate%20Change.pdf.

[5] United Nations Children's Fund, *Unless we act now. The Impacts of climate change on children* (2015).

[6] Office of the United Nations High Commissioner for Refugees, www.unhcr.org (2015).

[7] Internal Displacement Monitoring Centre, "Understanding the root causes of displacement: towards a comprehensive approach to prevention and solutions", (Briefing Paper, 2015).

[8] The target on responsible migration policies is reflected in Goal 10, target 7.

Environment, health, pollution and governance frameworks

The first Principles of both the 1972 Stockholm and 1992 Rio Declarations focus on the human right to a safe and clean environment. The Stockholm Declaration describes "the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality…", while the Rio Declaration states that humans "are entitled to a healthy and productive life in harmony with nature" (United Nations 1972 and 1992). These declarations, have together with other principles informed many national constitutions over the past three decades. At the same time, voluntary environmental initiatives have supported more formal environmental agreements, resulting in progress in some areas. But even more robust governance frameworks are required to bring us closer to a pollution-free planet. The Sustainable Development Goals provide an opportunity to accelerate the implementation of targeted and time-bound actions on pollution, which have been hitherto limited and inadequate.

Global and regional environmental agreements and national regulations

Multilateral environmental agreements and UN resolutions provide a governance framework for targeted and time-bound actions, while some also include compliance-related actions, monitoring and reporting. Such agreements and resolutions also enable the exchange of resources and information as well as the sharing of technologies and best practices for controlled international trade; they also promote international partnerships to address pollution, including among non-state actors.

A number of multilateral environmental agreements address different types of pollution. For example, the implementation of the Paris Agreement on climate change will be a major step forward in tackling air pollution, as the root causes of global warming and air pollution largely overlap. Addressing short-lived climate pollutants could avoid as much as 0.5°C of warming and prevent 2.4 million premature deaths from air pollution.[9] Specific air pollution-related agreements, such as the Convention on Long-Range Trans-boundary Air Pollution, provide additional protocols to address transboundary issues, such as acid rain.

With regards to chemicals and waste, existing multilateral environmental agreements enable actions notably in relation to ozone-depleting substances, persistent organic pollutants, certain hazardous industrial chemicals and pesticides in international trade, of hazardous and household waste, and more recently mercury, with the entry into force of the Minamata Convention on 16 August 2017. Such legally binding approaches at the global level are essential to addressing the most critical and complex pollution challenges. Several of the multilateral environmental agreements enjoy universal or near universal ratification. A clear success story is that of the Montreal Protocol and its Multilateral Fund. As of June 2017, the Fund had provided roughly $3.7 billion to more than 140 countries to phase out ozone-depleting substances, with lasting influence on innovation, technology transfer, strengthening of environmental governance, and training of customs officers and technicians.

[9] United Nations Environment Programme and World Meteorological Organization 2011

Global conventions provide a legal framework for international governance of seas and the ocean, prevention of pollution from ships, as well as dumping at sea, and are often complemented by regional agreements and conventions on specific seas. Freshwater pollution is mostly addressed by regional agreements looking at specific transboundary water basins, while land and soil pollution is indirectly addressed by the United Nations Convention to Combat Desertification and chemicals and waste conventions and processes.

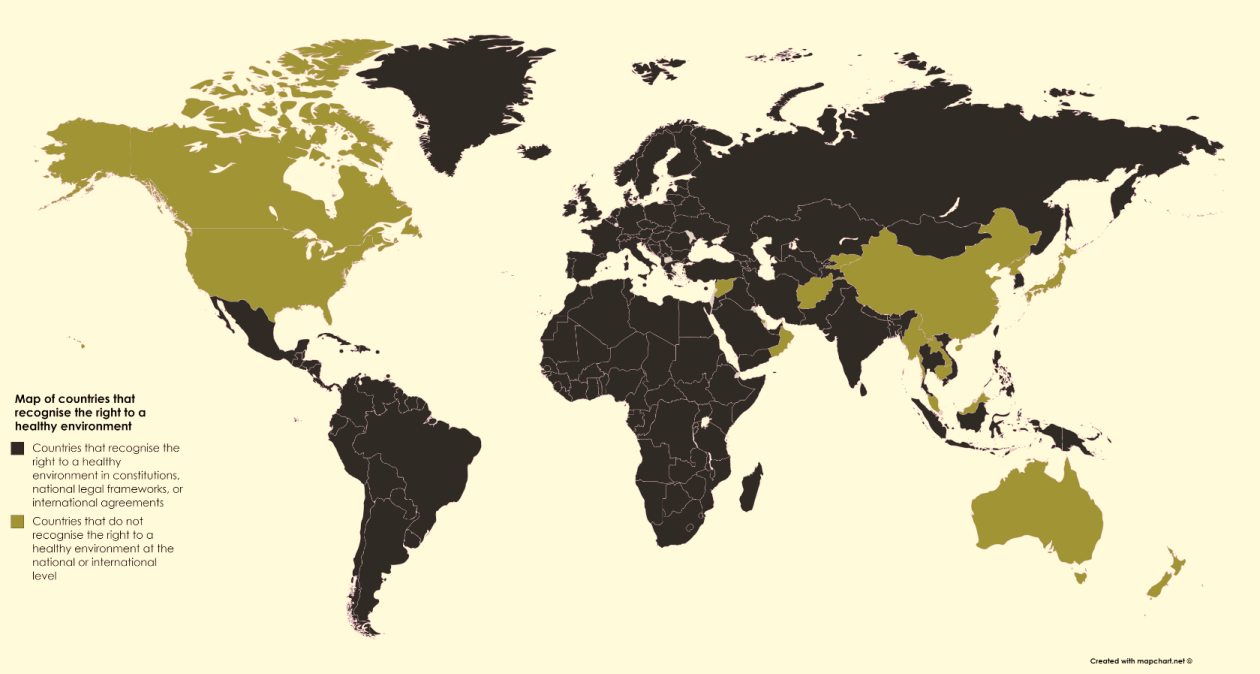
The Convention on Biological Diversity's Aichi Biodiversity Targets call for a decrease in pollution and demands specific actions on excess nutrients. Most of the other environmental agreements at the regional or global level have an indirect impact on various pollution areas, but many areas remain unaddressed.

In some regions, ministerial environment and health forums support integrated action to tackle environmental risks affecting health. Their integrative role offers significant opportunities for upscaled and impactful results and exchange of experiences within and across regions. Formal legal agreements are often complemented by non-legally binding policy frameworks and initiatives, such as the Strategic Approach to International Chemicals Management (SAICM), the Climate and Clean Air Coalition, and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA).

However, global and regional agreements cover only a part of the pollution governance landscape. Most countries have adopted national policy and legal frameworks to respond to these agreements and to address some of the other pollution issues.

Today, a majority of UN Member States recognize environmental rights. As of 2015, over 100 countries guaranteed their citizens a right to a healthy environment, with the majority of countries building this into their national constitutions. Although no international agreement explicitly recognizes the right to a healthy environment, national constitutions have played a vital role at the forefront of human rights and environmental protection. The majority of constitutional environmental rights include substantive, procedural, and emerging rights, such as the right to health and food, while others refer to policy-based, reciprocal-duty, and miscellaneous provisions.

The figure below indicates countries that recognize the right to a healthy environment, either through their national constitutions, legal frameworks, or ratification of regional or other agreements. Also shown are the few countries that do not recognize this right. However, in some of these countries, subnational governments recognize rights to a healthy environment. UN Environment, in collaboration with the UN Special Rapporteur on Human Rights and the Environment and the UN Office of the High Commissioner for Human Rights, works to assist countries to operationalize and implement these rights, which make a difference to people's lives.



Map of countries that recognize the right to a healthy environment as of 2015
(updated from Boyd D.R. 2012)

Progress can also be tracked in some specific areas of pollution. By 2015, 109 Member States had adopted air quality standards; 73 had a specific air quality policy, act or rules; and 104 had vehicle emission standards.

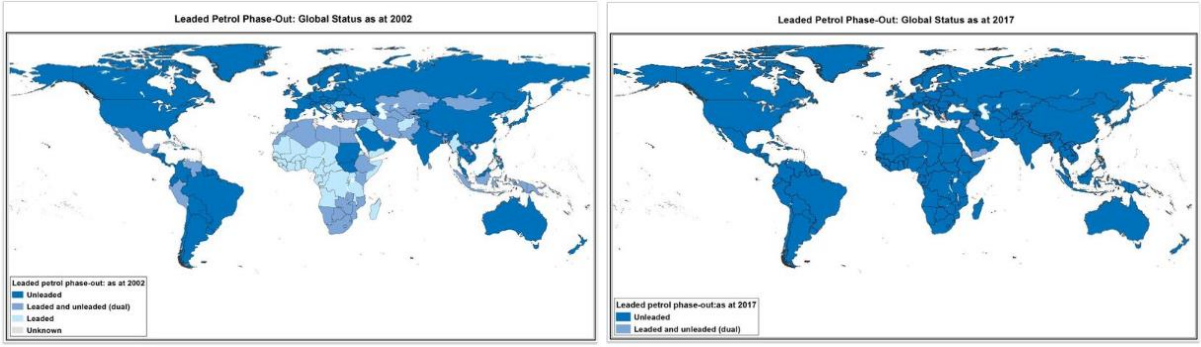
Legislation, regulations, and standards for chemicals and waste management are diverse and complex. Some countries have more than 100 instruments covering imports and exports, product standards, occupational exposure limits, bans and restrictions, registration schemes, framework legislation, and so on (United Nations Institute for Training and Research 2012). To date, 167 countries have national legislation addressing the issues covered by the Basel Convention, 142 of which have specific chemicals or waste legislation. As of 2017, 65 countries had legally binding controls on lead in paint. In water pollution management, 41 per cent of 130 countries surveyed in 2012 indicated that they had fully implemented, started or advanced implementation of integrated water resources management plans or the equivalent (United Nations Economic and Social Council 2017).

However, implementation, compliance and enforcement remain a great challenge, especially in developing countries, due to factors such as a lack of institutional capacity, absence of interministerial coordination, and the limited availability of information, training and national guidance materials on how to enforce relevant laws. High-income countries also face enforcement problems. For instance, the transboundary movement of hazardous waste, which is regulated by the Basel Convention, is often not properly controlled, and resulting in large amounts of hazardous waste being exported in an unregulated manner to developing countries. Up to 90 percent of e-waste is illegally dumped after being declared “second-hand goods”.

Voluntary initiatives and global alliances have been instrumental in driving improved responses (Box 4) and faster actions, as seen in the case of fuel efficiency improvements and cleaner air (Boxes 5 and 6). These strategic initiatives help leverage and motivate key stakeholders to deliver on planned outcomes.

Eliminating lead in fuels and paint through partnerships

Over the course of ten years, the Partnership for Clean Fuels and Vehicles – a public-private partnership formed by UN Environment – supported more than 80 countries. Governments, the oil and auto industries, and civil society have worked together to support a global shift to unleaded fuels. To date, only three countries still use small amounts of leaded fuels, all of which are set to stop by the end of 2017. This massive shift prevents an estimated 1.2 million premature deaths every year. Studies have shown that blood lead levels drop dramatically in countries that ban leaded petrol. It also has a positive impact on children's intellectual ability (Tsai and Hatfield 2011).



The use of unleaded petrol in 2002 (left) and today (right)

Now that lead in automobile fuels has been almost completely phased out, ***decorative paint is one of the largest sources of exposure to lead***. Although global regulation on white lead paint started as early as 1921, decorative paint containing lead is still sold in many developing countries. They are used in homes and schools, on furniture and toys, exposing children to this dangerous neuro-toxic pollutant. As of April 2017, regulation on lead paint is in place in 65 countries. The Lead Paint Alliance is working towards the goal of having regulation in place in all countries by 2020. Countries that introduced new regulations include India, Kenya, Nepal, the Philippines, Sri Lanka, Tanzania and Thailand. Many paint manufacturers, including AkzoNobel and PPG Industry, the two largest global companies in the sector, have committed to phasing out lead paint. However, there are concerns that voluntary labelling and certification efforts by industry are insufficient, and that government action on lead paint laws may be required.