

UN Environment Assembly 3 Implementation Plan “Towards a Pollution-Free Planet”

SECOND DRAFT

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SECOND DRAFT OF THE UNEA3 IMPLEMENTATION PLAN “TOWARDS A POLLUTION-FREE PLANET”

as of 23 November 2018

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INTRODUCTION AND SUMMARY

The World Health Organization (WHO) estimates that 23 per cent of all deaths worldwide – amounting to 12.6 million people in 2012 – were due to environmental risks. Low income and middle-income countries bear the brunt of pollution-related illnesses, with a disproportionate impact on children, women and the most vulnerable. Addressing pollution helps the environment, improves quality of lives, reduces the impacts on human health and human capital, and avoids income losses. By acting to prevent, better manage and reduce pollution at regional, national and local levels, governments and stakeholders put themselves on a path to meeting the Sustainable Development Goals. This is a prime responsibility of member states and acting on pollution constitutes an important contribution to achieving the Goals and the 2030 Agenda for Sustainable Development.

Member States adopted a Ministerial Declaration as a key outcome of the 3rd UN Environment Assembly which gathered in Nairobi (Kenya) from 4-6 December 2017 under the overarching topic “Towards a Pollution-Free Planet”. The Ministerial Declaration calls for the “Executive Director of the United Nations Environment Programme to submit a plan for implementation in consultation with the Committee of Permanent Representatives, for [Member States] consideration by no later than the next United Nations Environment Assembly”, “building on the outcomes of the 3rd Session of the United Nations Environment Assembly” (Paragraph 14). As pointed out by the UNEA-3 Ministerial Declaration, “we cannot overstate the need for rapid, large scale and coordinated action against pollution” (Paragraph 11) and that “moving to a pollution free planet is a long-term endeavour” (Paragraph 14). The sixth edition of the Global Environment Outlook, with its theme “Healthy Planet, Healthy People” also highlights how pollution is a key issue requiring urgent and coherent action, through innovative and systemic environmental policy approaches (GEO-6, in prep.).

To move to a pollution free planet, and in doing so contribute effectively and equitably to implementing the sustainable development goals, requires ambition. It requires a system-wide transformation, and strengthened capacities – global, national and sub-national- to act on air, water, soil, marine and coastal pollution, and the sound management of chemicals and waste. These necessary capacities are in the areas of (1) knowledge about pollution, its sources, fate and pathways; (2) regulatory and institutional capacity to implement and enforce; (3) infrastructure to manage and prevent pollution; (4) awareness about impacts of pollution on health, productivity and environment but also about production and consumption choices that cause pollution, and (5) leadership to direct and act on pollution solutions.

The move to a pollution free planet is a collective responsibility. The implementation plan looks to Member States, as well as to development partners, UN agencies, faith-based groups, non-governmental organizations, local authorities and communities, businesses, finance and youth to deliver on this vision. UN Environment itself contributes to this Implementation Plan through its Programme of Work and, going beyond this Programme of Work, creates a greater and faster impact through improved coordination of ongoing efforts and catalyzing action through partnerships towards a pollution free planet.

The Implementation Plan (i) takes forward pollution-related UNEA outcomes, (ii) proposes action areas with opportunities and solutions to address the capacity gaps and challenges related to pollution, and (iii) contributes to implementing the Sustainable Development Goals by accelerating progress towards the targets through preventing and combating pollution. The approach to the Implementation Plan is

both normative and operational. It connects with the Agenda 2030 framework and the multilateral environmental agreements that relate to pollution. It highlights that good experiences/knowledge to act on pollution already exist and need to be shared more widely. The Implementation Plan includes preventive and remedial aspects, for both the near and longer terms. It builds on existing UN Environment work and initiatives and focuses on the common challenges across pollution dimensions - air, water, land/soil, marine and coastal, chemicals and waste.

The vision, main objectives, target audience, action areas, expected outcomes, timeframe and monitoring of the progress of the Implementation Plan are summarized in Table 1 below.

Table 1: Implementation Plan on Pollution - Summary

Vision	Towards a Pollution-Free Planet
Objectives	<ul style="list-style-type: none"> ✓ To facilitate the implementation of UNEA resolutions addressing pollution ✓ To increase the linkages with pollution-related fora and global efforts, such as Sustainable Development Goals, multilateral environmental agreements and key strategic approaches including SAICM ✓ To accelerate and upscale actions addressing pollution by raising the capacity to prevent and act on all forms of pollution ✓ To help countries at different levels of development to leapfrog by learning from each other on successful experiences in dealing with pollution ✓ To sustain and increase global awareness of pollution and its consequences on ecosystems and human health and well-being ✓ To monitor and report on progress towards a cleaner planet
Scope and audience	<ul style="list-style-type: none"> ✓ The Plan covers different pollution dimensions: air, water, land/soil, marine and coastal, and considers chemicals and waste in a cross-cutting manner through a focus on high impact solutions and the commitments in the Resolutions. ✓ The Implementation Plan supports ministers, officials, policy makers and partners with relevant stakeholders that can influence decisions and action towards a pollution free planet ✓ The plan aims at reflecting inclusiveness and collective responsibility and hence also engages business, industrial sectors communities and citizens to set voluntary pollution reduction targets and take accelerated and measurable actions ✓ It aims to engage with people whose lives and livelihoods are affected by pollution and those responsible for it
Action Areas	<ul style="list-style-type: none"> ✓ Knowledge: Science for evidence-based policy ✓ Implementation: Strengthening of implementation, design of incentives, integrated policy assessments, regulatory innovations, enhanced capacity building and enforcement ✓ Infrastructure: Technologies and innovation, sustainable consumption and production/resource efficiency ✓ Awareness: Outreach, communication, education and consumer information ✓ Leadership: Mobilizing stakeholders, leaders and partners to address different forms of pollution
Main expected outcomes	<ul style="list-style-type: none"> ✓ UN Environment partners with leaders from national and local governments, business and financial sectors, international and local communities and NGOs act to make pollution prevention and management a priority

	<ul style="list-style-type: none"> ✓ Stakeholders demonstrate greater knowledge on pollution, environment and health linkages and solutions to address these linkages as a result of UNEP efforts ✓ Countries strengthen regulatory and policy frameworks to prevent and control pollution with capacity building support from UNEP ✓ Countries share good practices, technologies and innovative solutions through UNEP to avoid pollution and reduce the impact of pollution when it happens ✓ Countries have effectively implemented international conventions, frameworks and approaches they have agreed to be part of, or similar measures for the achievement of the sound management of chemicals and wastes ✓ Sectoral capacities and commitments on pollution are enhanced through coordinated action and partnerships with UNEP at the global, regional, national and local levels ✓ A cleaner world over time
Timeframe	The Implementation Plan’s horizon is 2030, however activities are initially articulated for a 3-year period (by 2021) as per the Medium-Term Strategy 2018-2021 and the Programme of Work to enable concrete results and adjustments to be made based on new resolutions emanating from the sessions of the UN Environment Assembly
Reporting on progress	<ul style="list-style-type: none"> ✓ Tracking of voluntary commitments by Member States and stakeholders based on self-reporting ✓ Enabling national reviews of actions on pollution through self-reporting at future UNEAs ✓ Capacity and policy indicators used to report actions in preventing and managing pollution and identify areas for more support

PART 1- CONTRIBUTING TO IMPLEMENTATION OF THE SUSTAINABLE DEVELOPMENT GOALS BY FOCUSING ON POLLUTION

The Implementation Plan “Towards a Pollution-Free Planet” aims to accelerate and upscale action to reduce pollution in all its forms, and to support countries in implementing the Sustainable Development Goals. Annex 1 shows how actions on different dimensions of pollution contribute to the Goals.

The Implementation Plan consists of three main components:

- 1. Providing visibility, tracking and reporting on actions taken on pollution and pollution status**
 - a. Using the #BeatPollution platform for countries to report on voluntary commitments
 - b. Demonstrating good practices through knowledge sharing
 - c. Enabling national reviews of actions on pollution through self-reporting at future UNEAs

- 2. Increasing coordination and sharing of knowledge, good practices and innovative solutions to pollution**
 - a. Facilitating the use of knowledge and solutions on pollutions, highlighting existing tools, such as the model law and guidance for regulating lead paint, Pollutant Release and Transfer Registers, etc.
 - b. Enhancing the opportunity of global, regional and city level cooperation on solutions to pollution

3. Addressing challenges to act on pollution

- a. Implementation of pollution-related mandates provided by UNEA through the Programmed of Work (see Annex 2)
- b. Adopting high impact solutions/ accelerators as required through partnerships

1.1 UN Environment Assembly outcomes: mandates from the resolutions

“Towards a Pollution-Free Planet” was the overarching theme of the 3rd session of the UN Environment Assembly and saw the adoption of nine resolutions which were related to this topic. Yet, already at UNEA1 and UNEA2, some resolutions were adopted which contribute to deliver on the environment, health and pollution nexus (Figure 1). Chemicals and waste was the topic of resolutions adopted at UNEA1 and UNEA2 and is also part of the Environment and Health resolution adopted at UNEA3. Marine litter and microplastics was the topic of resolutions in all three Assemblies, while air quality was the topic of resolutions at UNEA1 and UNEA3.

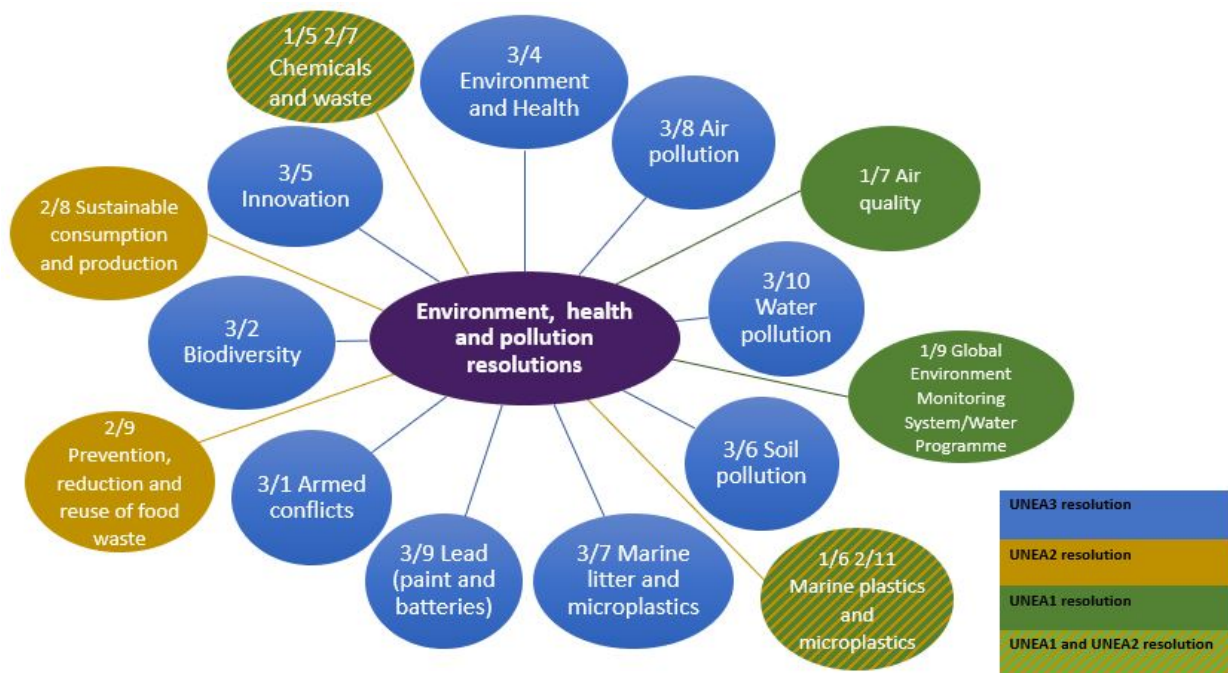


Figure 1: Environment, health and pollution-relevant resolutions adopted by Member States at the first, second and third UN Environment Assembly

Annex 2 provides a detailed analysis and some key building blocks of these resolutions. The activities align well with the messages that came out of the leadership and the multistakeholder dialogues held at UNEA3 and form the foundation of the Implementation Plan.

The main types of activities covered by the operational paragraphs in the pollution-related resolutions are shown in Figure 2. The many UNEA resolutions related to chemicals, waste and pollution, including on environment and health, have deepened the need for integration and nexus and synergistic thinking

on chemicals, waste and pollutants given the cross-cutting issues in them. This implementation plan is designed to serve this purpose.

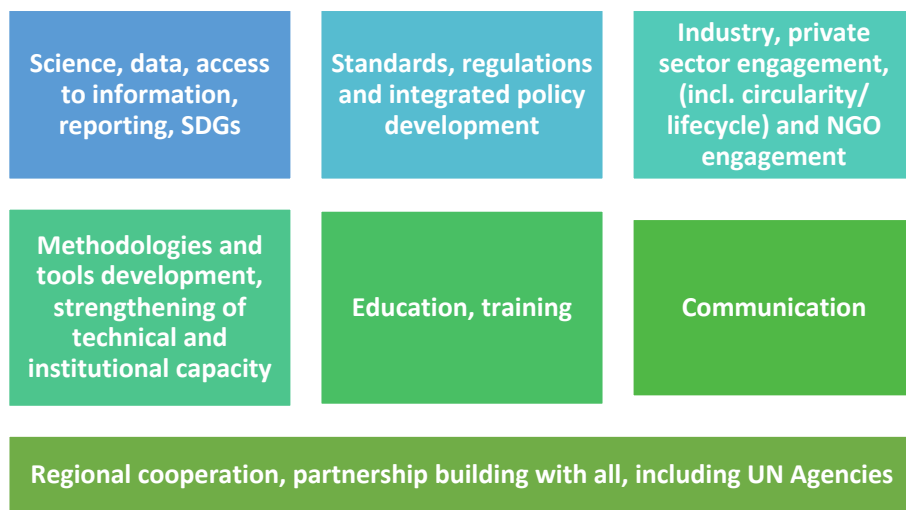


Figure 2: Main types of activities to address pollution called for in the UNEA resolutions

1.2 Building momentum: #BeatPollution voluntary commitments and pledges

The #BeatPollution campaign raised awareness of the many forms of pollution and encouraged individuals, governments, businesses and civil society to commit to act and save lives around the world in the run-up to the 3rd UN Environment Assembly. Almost 2.5 million pledges by citizens were made on web and social media.

About 400 voluntary commitments were submitted by the end of December 2017 from governments, civil society and business as part of UN Environment’s #BeatPollution campaign. A total of 69 governments, 97 civil society organizations and 23 businesses provided details of their current and future actions for tackling pollution. The majority of government commitments include policies and actions for directly controlling pollution at source, building resource efficient, circular economies and raising public awareness. Overall, commitments fall into four broad categories:

- a. Expanding existing pollution reduction and control activities and policies
- b. Removing barriers
- c. Increasing awareness through education and targeted, public awareness campaigns
- d. Investing in research and development

Tackling pollution through voluntary commitments cuts across all environmental areas: air pollution, chemicals and waste represent nearly 60% of the commitments; 17 percent are about tackling marine and coastal pollution, especially marine litter and plastics; 8% target freshwater pollution and 7% land and soil (Figure 3).

Examples of voluntary commitments include: adopting and implementing WHO air quality guidelines, providing effective and affordable public transport, controlling use of antimicrobials in the livestock

sector to avoid releases into the environment, protecting and restoring wetlands and other natural systems contributing to water purification, extending product lifespan through sustainable design, and removal of lead in paints, among others.

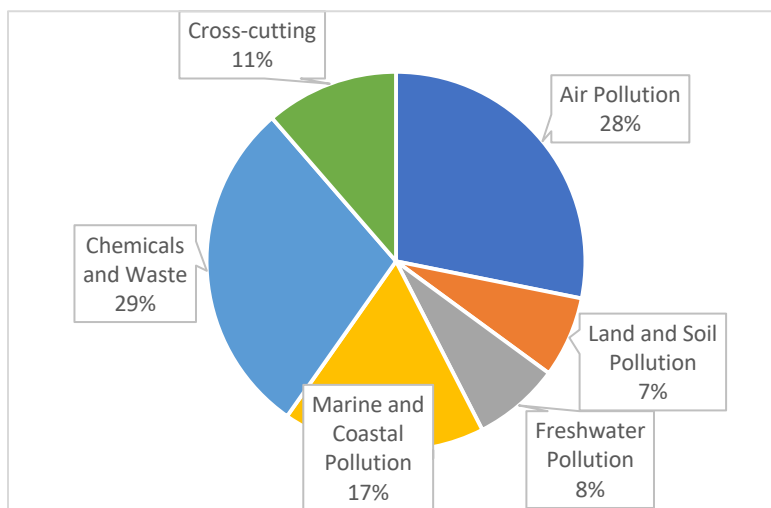


Figure 3: Number of commitments from governments, civil society and business per pollution dimension

The Implementation Plan encourages self-reporting and sharing of best practices in the #BeatPollution platform.

1.3 A living document: Linking with UNEA4 and the future

This Implementation Plan is a “living document” linking past UNEAs to future UNEAs. On the one hand, it builds coherence across and facilitates the implementation of the pollution-related resolutions of past UNEAs. On the other hand, it can integrate the outcomes of future UNEAs that may adopt resolutions that address remaining challenges (cf. Box 2) to act on pollution in an impactful manner. The “living” part of the plan is that it is adaptable to change as progress is made to address existing challenges as well as to add components to new challenges identified in future UNEAs. It needs continuous leadership and stakeholder engagement to ensure progress towards a world free of pollution.

Box 2: Key challenges to addressing pollution identified through stakeholder consultations

Knowledge: There is a need for much greater knowledge on the sources of pollution, chemicals content in supply chains, product information, the pathways of exposure, the impacts and solutions, and alternatives for improved choices, regulation and decisions.

Implementation: Strengthened regulatory, enforcement and institutional functioning combined with enhanced technical and institutional capacity, knowledge and experience sharing on what has worked or not worked are essential to accelerate and upscale action to prevent and address pollution.

Infrastructure: Infrastructure to monitor, prevent, manage and control pollution is key for developing and adopting better practices, but also reduces exposure to hazards associated with pollution, such as

waste dump collapses or flooding of sewage water that can lead to mobilization of dangerous chemicals from storage.

Awareness: There is a lack of awareness that consumption choices have pollution consequences, limited information on the risks and available solutions, and insufficient product information for consumers to make informed choices.

Leadership: Right signals from leadership on actions to curb pollution are key to positive change. These include not just political, but also industry, NGOs, faith-based groups, youth and finance leadership. For example, policies on pollution information disclosure, internalization of pollution costs into product pricing, investments in green technology, green financing, and consumer labeling. These are important levers for pollution prevention and control and for market transformations towards greener products, to incentivize consumers to make more informed choices and create pressure through demand on producers to reduce their pollution footprint and adopt better and innovative practices.

It is expected that UNEA4 under the theme “Innovative solutions to environmental challenges and sustainable consumption and production” will make an important contribution in this regard. After all, implementing high impact solutions to combat pollution at scale hinges on innovation, as well as the reduction of the environmental footprint of production activities and, behaviors and consumption patterns.

1.4 Delivering on the Sustainable Development Goals

The 2030 Agenda for Sustainable Development provides an opportunity to enhance and accelerate action on pollution and thus help to achieve the Sustainable Development Goals. Sound management of chemicals and waste is key to avoid pollution and associated environment and health damage and related social and economic costs and provides effective ways to meeting the Sustainable Development Goals in a crosscutting and holistic manner. By taking action to prevent, better manage and reduce pollution, governments put themselves on a path to meeting the Goals.

While addressing pollution can support the delivery of all Sustainable Development Goals (Figure 4) some targets are more directly connected to the pollution agenda and the delivery of the Implementation Plan (Annex 3). Addressing pollution in particularly contributes to achieving targets:

- ✓ 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- ✓ 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- ✓ 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, from land-based activities, including marine debris and nutrient pollution

The Implementation Plan aims at accelerating action to meet these targets

To contribute to the 2030 Agenda for Sustainable Development, the Implementation Plan's horizon is 2030. However, activities are articulated initially for a 3-year period (by 2021) to enable concrete results and adjustments/ adaptive management during the Medium-Term Strategy period 2018-2021, based on lesson learnt and progress made
















<p>1 NO POVERTY</p>  <p>Cleaner environments improve health and worker productivity and work days</p>	<p>2 ZERO HUNGER</p>  <p>Growing food with careful pesticide use on non-contaminated soils helps to fight hunger and ensure the provision of safe food year-round</p>	<p>3 GOOD HEALTH AND WELL-BEING</p>  <p>Actions on pollution substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>
<p>4 QUALITY EDUCATION</p>  <p>A clean environment enables quality education and education enables acquisition of knowledge and skills needed to promote sustainable development and sustainable lifestyles</p>	<p>5 GENDER EQUALITY</p>  <p>Pollution reduction as well as equality, for example through reduced burden of fetching clean water, cleaner indoor air quality and better health enable gender equality</p>	<p>6 CLEAN WATER AND SANITATION</p>  <p>Better managed freshwater ecosystems from cleaner water and chemical pollutants significantly reduce the number of deaths from diarrhoeal diseases</p>
<p>7 AFFORDABLE AND CLEAN ENERGY</p>  <p>Access to affordable, reliable, sustainable and modern energy can cut air pollution indoors, which will particularly benefit women and children</p>	<p>8 DECENT WORK AND ECONOMIC GROWTH</p>  <p>Improved health and well-being of workers and toxic-free workspaces lead to increased productivity and economic growth</p>	<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>  <p>Pollution avoidance through adoption of green technologies and ecosystem based solutions fosters innovation and sustainability in industry and infrastructural sectors</p>
<p>10 REDUCED INEQUALITIES</p>  <p>Pollution governance and actions can ensure that no group or community is made to bear a disproportionate share of the harmful effects of pollution</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>  <p>Sustainable transport, waste management, buildings and industry lead to cleaner air in cities</p>	<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>  <p>Resource efficiency and circularity in materials and chemical inputs reduce pollution and waste and contribute to sustainable consumption and production</p>
<p>13 CLIMATE ACTION</p>  <p>Clean energy and low carbon policies reduce air pollution and mitigate climate change impact at the same time</p>	<p>14 LIFE BELOW WATER</p>  <p>Action on marine pollution reduces potential bioaccumulation of toxic substances as well as habitat destruction, and help maintain healthy fisheries and ecosystems</p>	<p>15 LIFE ON LAND</p>  <p>Integrating ecosystem and biodiversity values into development plans and poverty reduction strategies supports better land management and avoids pollution</p>
<p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>  <p>Good "pollution-related" governance reduces environmental burdens and injustices and can enhance availability of 'saved' resources for the underserved</p>	<p>17 PARTNERSHIPS FOR THE GOALS</p>  <p>Global partnerships to address pollution can have positive implications to health, jobs, worker productivity, planet and well-being</p>	

Figure 4: Sustainable Development Goals and linkages to the pollution, environment and health nexus

PART 2- THE ADDED VALUE OF THE IMPLEMENTATION PLAN

It is important to reiterate that the implementation of this Plan is a collective responsibility. It is expected that Member States will implement many components on their own, while UN Environment and other intergovernmental organizations will support Member States and at the same time implement activities on their own

2.1 Highlighting and building synergies across UN Environment's work in support of actions on pollution

All of the seven sub-programmes of UN Environment contain aspects that can support actions on pollution:

1. The **chemicals, waste and air quality sub-programme** works on sound chemicals and waste management, and improving air quality. The programme addresses air, water and marine pollution through various initiatives, as well as waste prevention and management through strategy planning, value retention measures and use of circular approaches. The sub-programme hosts the secretariat of the Strategic Approach to International Chemicals Management that has built an atmosphere of trust and cooperation convening stakeholders and sectors to dialogue and catalyze actions since 2006. It also includes work on specific pollutants, such as on lead, pharmaceuticals including antimicrobials, persistent organic pollutants and mercury, and institutional strengthening at the national level to support implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach on International Chemicals Management.
2. The **climate change sub-programme** works on carbon dioxide and short-lived climate pollutants, such as black carbon, methane, hydrofluorocarbons and tropospheric ozone. Targeted actions to reduce these can have positive climate change mitigation impacts and also support a reduction in air pollutants that affect health and agricultural productivity, and reductions in substances contributing to the depletion of stratospheric ozone.
3. The various International Resource Panel reports, the Global Chemicals Outlook and the upcoming sixth Global Environment Outlook (GEO-6), state repeatedly that **resource efficiency** is one of the most effective strategies to decouple growth from environmental footprints, detoxify through reduction of waste and pollution, and decarbonize by delinking growth from carbon. It is thus a key response to carbon mitigation and pollution avoidance and can be used to raise the ambition on climate and pollution actions.
4. **Environment under review** is able to support the pollution efforts through thematic assessments, the Global Environment Outlook and Environment Live as well as the associated indicator reporting platform for the Sustainable Development Goals and the 2030 Agenda.
5. **Environmental governance** supports work on pollution through gaps and trend analysis on regulatory approaches, through development of model legislation, as well as technical assistance to develop and strengthen legislation in countries.
6. **Disasters and conflicts** have emergency deployments to address pollution caused by natural disasters, industrial accidents and pollution resulting from armed conflict. It also builds capacity to increase resilience to the same.

7. **Healthy ecosystems**, through actions on pollution, protect biodiversity and the sub-programme builds resilience in ecosystems and sustains ecosystem services, by for example enhancing water quality through the restoration of wetland areas.

The Implementation Plan adds value to this existing work through building synergies across action areas, increasing their effectiveness and enhancing visibility through a coherent narrative that speaks to the environment and human health nexus.

2.2 Improving coordination, information sharing, communication and reporting: The “glue” across pollution dimensions

The Implementation Plan builds coherence and improved coordination on pollution aspects of UN Environment’s Programme of Work. To create such coherence and enhance coordination, two cross-cutting activities are proposed: 1) facilitating knowledge-sharing, best practices, policies and strategies, and innovative pollution solutions through existing platforms and ensuring that key assessments processes feed into this information sharing; 2) having a summary report on pollution-related actions, innovative solutions adopted, and progress made, and trends on pollution challenges drawing on assessments, such as the Global Environment Outlook, the Global Chemicals Outlook, Global and Regional Waste Outlooks, and other such assessments.

2.2.1 Information sharing function: Sharing tools and knowledge of good and innovative practices

While pollution is a global issue, the priorities and capacities to act on pollution vary by region, country or locality. To provide better enabling conditions for Member States and all stakeholders to (i) prioritize issues and (ii) take action relevant to the particular issues they face, the Implementation Plan has an information sharing function to harness synergies across pollution areas and information on pollution trends and available actions, understand the drivers and impacts of pollution, pollution exposure and related health risks, and sharing of good practices. Such information sharing will provide decision-makers with the various technology and policy options available in different parts of the world, on what works and what does not, costs and benefits, and the potential to use local solutions based on local knowledge. It can benefit from several pollution-relevant knowledge platforms, such as the newly established Global Plastics Platform (GPP), Green Growth Knowledge Platform (GGKP), the sustainable consumption and production clearing house, and the knowledge websites and data bases of the Organization for Economic Co-operation and Development (OECD), the World Bank, the Convention on Biological Diversity, the Climate Technology Centre and Network, and the Climate and Clean Air Coalition, among others. The information sharing function will:

- ✓ Pull together policy, legal and other tools that exist to address pollution, for example the IOMC Tool Box, model laws on lead and guidance developed by the Global Alliance to Eliminate Lead Paint, and in case of air quality: BenMAP, “filling the gaps” reports on air quality, the recently launched report on the 25 science-based solutions for air pollution in Asia and the Pacific, etc.
- ✓ Help stimulate exchanges of innovative solutions to pollution issues, which can also be cross-media in nature.
- ✓ Ensure that relevant assessment products from UN Environment and other relevant processes, such as the Global Environment Outlook, the Global Chemicals Outlook, the Global Waste Management Outlook, the Global Sustainable Development Report and so on,

as well as those emanating from multilateral environmental agreements, feed into this platform function.

1) Knowledge-sharing and innovation function: stimulating exchanges of good practices and innovative technologies and solutions	
<i>Deliverables:</i>	<p>Knowledge and innovation online function 1) to provide data on environmental degradation, pollution exposure and human health risks and impacts; 2) to facilitate exchange of best practices and facilitate collaboration with companies from relevant sectors to share information on new, alternative and existing technologies, and 3) to share tools and maps and stimulate innovative solutions aligned with the Environment Situation Room:</p> <ul style="list-style-type: none"> ✓ Share information on existing projects that are preventing or contributing to reduce pollution and exposure to pollution by country and by pollution dimension when relevant, gathering information and linking with existing platforms ✓ Share information on technologies that are preventing or contributing to reduce pollution and exposure to pollution, and where they are used ✓ Share information on existing policies to prevent and better manage pollution in countries and across sectors ✓ Disseminate information on existing standards, Best Available Technologies and Best Environmental Practices to reduce industrial emissions ✓ Support adoption and enforcement of legislation on national emissions from industrial sources

2.2.2 A Reporting Function: Tracking progress of actions towards a cleaner planet

Being able to track activities and highlight progress is indispensable to accelerate action to reverse or mitigate environmental degradation and pollution leading to reduced well-being and ill health and to promote innovation and a circular economy. As the Implementation Plan’s focus is on enabling countries to take measures towards a pollution-free planet, it is therefore proposed to develop a framework for tracking progress made on capacity and institutional strengthening to tackle pollution-related issues, as well as identify, on a regular basis, key measures and innovations that governments or stakeholders can adopt to improve on prevention and management of pollution (including air, water, marine/coastal, and soil pollution). A first summary report is planned for 2021 (within the 3-year scope of the Implementation Plan) with a second tentatively planned for 2031. The tracking of progress on where the world is in acting to address pollution will take into account the objectives and targets for chemicals and waste that are currently under development in the context of developing a new global regime for the sound management of chemicals and waste beyond 2020.

2) “Pollution summary report”- Tracking progress: where is the world in taking action to address pollution?	
<i>Deliverable:</i>	A first report “Tracking progress: where is the world in taking action to address pollution” by 2021

2.3 Working with partners and stakeholders to address challenges and provide solutions

This plan draws on partnerships. UN Environment cannot act in isolation. Delivering on the UNEA resolutions already goes beyond UN Environment-driven activities, as resolutions also invite Member States, UN Agencies, multilateral environmental agreements, and stakeholders, including local governments, non-governmental organizations and the private sector, to take action. The Implementation Plan aims at reflecting that inclusiveness and collective responsibility. Beyond UNEA resolutions, the Ministerial Declaration offers a unique opportunity for the international community to address the main challenges to address pollution and get results. It also catalyzes efforts of Member States and key global, regional, national and city authorities and institutions and partners, as well as development banks to accelerate change and increase impact to prevent, better manage and control pollution.

In order to upscale action, it is essential to build on already existing processes, connect better with the multilateral environmental agreements, initiatives, campaigns and partnerships that are addressing pollution, catalyzing action and harnessing synergies. Assistance with resource mobilization can also be extended, based on country-driven needs assessments and partnership analyses. A clearer partners and stakeholders mobilization strategy highlighting incentives or targeted actions will be put in place for partner organizations to join if the plan is adopted.

2.3.1 Building on the strengths of multilateral environmental agreements to tackle pollution

A number of multilateral environmental agreements and related frameworks provide key opportunities to prevent and reduce pollution (Table 2). These agreements are an essential component of the pollution governance framework, providing targeted and time-bound actions, while some also include compliance-related actions, monitoring and reporting. They also enable the sharing of resources, technologies, guidelines and best practices for their implementation. Annex 4 shows how three global multilateral environmental agreements in the chemicals and waste cluster contribute to addressing the challenges in preventing, controlling and managing pollution.

Considering that 80% of marine litter is land-based, the Regional Seas Conventions are of critical importance at regional level, especially those that have protocols on land-based sources of pollution or legally binding Marine Litter Action Plans. Some Regional Seas Conventions, such as the Barcelona Convention, have developed sustainable consumption and production policies with Action Plans and initiatives that interlink them with the Basel, Rotterdam and Stockholm Conventions.

However, there are also pollutants which may not be covered by such agreements, even though these are evolving instruments. The Strategic Approach to International Chemicals Management has in part helped fill this gap with its process to identify emerging policy issues through the International Conference on Chemicals Management including for example resolutions promoting gathering and exchanging information on emerging issues such as perfluorinated chemicals, nanotechnology, endocrine disrupting chemicals and pharmaceuticals. Some warrant additional scientific research in order to precisely assess their environmental and health impacts.

In this context, partnerships can provide the integrating, catalytic, and scaling up power needed to drive layered actions and next steps, and to complement and strengthen compliance with global and regional environmental agreements.

Table 2: Key multilateral environmental agreements addressing pollution

AIR	WATER	SOIL	MARINE AND COASTAL
<ul style="list-style-type: none"> ✓ The United Nations Framework Convention on Climate Change (1992), including Paris Agreement on climate change ✓ Convention on Long-Range Transboundary Air Pollution 	<ul style="list-style-type: none"> ✓ Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971) ✓ The UN Economic Commission for Europe Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) (1992) ✓ The Protocol on Water and Health (1999) ✓ The Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (2003) ✓ Convention on the Law of the Non-navigational Uses of International Watercourses (1997) <p>NB: Freshwater pollution is also addressed by regional agreements looking at specific transboundary water basins</p>	<p>Land and soil pollution is indirectly addressed by the United Nations Convention to Combat Desertification and chemicals and waste-related conventions and processes.</p>	<ul style="list-style-type: none"> ✓ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention) (1971) ✓ International Convention for the Prevention of Pollution from Ships (MARPOL) (1973) ✓ Convention on the Prevention of Marine Pollution from Land-Based Sources (1974) ✓ International Convention for the Safety of Life at Sea (SOLAS) (1980) ✓ United Nations Convention on the Law of the Sea (UNCLOS) (1982) ✓ Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) (1990) ✓ International Convention on Civil Liability for Oil Pollution Damage (CLC) (1992) ✓ Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities - not legally binding ✓ Regional Seas Conventions (including Cartagena Convention, COBSEA, Nairobi Convention, Barcelona Convention, NOWPAP, Abidjan Convention)
CHEMICALS AND WASTE			
<ul style="list-style-type: none"> ✓ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989) ✓ Stockholm Convention on Persistent Organic Pollutants (2001) ✓ Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998) ✓ Minamata Convention on Mercury (2017) ✓ Strategic Approach to International Chemicals Management (2006) – not legally binding ✓ Vienna Convention for the Protection of the Ozone Layer (1985), the Montreal Protocol on Substances that Deplete the Ozone Layer (1987) and Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (2016) ✓ International Labour Organization Chemicals Convention (1990) (No. 170) ✓ Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997) 			

2.3.2 Catalyzing existing partnerships and initiatives addressing pollution

Voluntary coalitions, partnerships and alliances, including with the business community, international organizations and civil society, are key for implementing and scaling up successful approaches (Table 3). The Implementation Plan builds on relevant voluntary coalitions, partnerships and alliances and focuses on the added value of coordination, collaboration and synergies between related initiatives, emphasizing the link between pollution, environment, climate and health in the priorities of potentially related initiatives which have not yet prioritized pollution. It provides an opportunity for these initiatives to work better together and to provide more visibility for their work, from a pollution angle. The ability to mobilize and catalyze existing networks of stakeholders, such as the city and local authorities' network or the business associations, can have a multiplier effect and be a key success factor.

Table 3: Examples of existing global partnerships and initiatives directly addressing pollution

AIR	SOIL	WATER	MARINE AND COASTAL
<ul style="list-style-type: none"> ✓ Climate and Clean Air Coalition (CCAC) ✓ Partnership for Clean Fuels and Vehicles ✓ Global Fuel Economy Initiative (GFEI) ✓ Clean Cooking Alliance ✓ United for Efficiency-en.lighten initiative ✓ BreatheLife ✓ Every Breath Counts ✓ Integrated Global Greenhouse Gas Information System (IG3IS) ✓ Global Platform on Air Quality and Health ✓ Global Bioenergy Partnership (GBEP) 	✓ Global Partnership on Nutrient Management		
	✓ Global Soil Partnership	<ul style="list-style-type: none"> ✓ Global Partnership on Marine Litter ✓ Global Wastewater Initiative ✓ World Aquariums Coalition against Marine Litter 	
	✓ Sustainable Rice Platform		
CHEMICALS AND WASTE			
<ul style="list-style-type: none"> ✓ Global Mercury Partnership ✓ RECPnet - Global Network for Resource Efficient and Cleaner Production ✓ Global Alliance towards alternatives to DDT 		<ul style="list-style-type: none"> ✓ Global Alliance on Health and Pollution ✓ Lead Paint Alliance ✓ Global Partnership on Waste Management ✓ Global Plastic Platform (under development) 	

PART 3- KEY ACTION AREAS TO ADDRESS POLLUTION CHALLENGES

Despite the ongoing work of various organizations, including UN Environment and the multilateral environment agreements, pollution challenges exist in most countries although the nature, scale and the exposure varies. Recognizing the continuous need to understand and address the different challenges and capacities among countries, the Strategic Approach to International Chemicals Management issued in 2015 the Overall Orientation and Guidance for achieving the 2020 goal of sound management of chemicals. The Implementation Plan can make an important contribution to foster the use of this guidance, for example by accelerating action in the area of awareness and encourage countries to implement the globally harmonized system of classification and labelling of chemicals.

The key challenges to addressing pollution are summarized in Box 2. These include **knowledge, implementation, infrastructure, awareness and leadership**. Figure 5 highlights the action areas to address these challenges. The five action areas to address the challenges are respectively (i) **science for policy**; (ii) **capacity, incentives and integrated policies**; (iii) **technologies, innovation and sustainable consumption and production/ resource efficiency**; (iv) **communication, education and consumer awareness**, and (v) **mobilizing leaders and partners**.

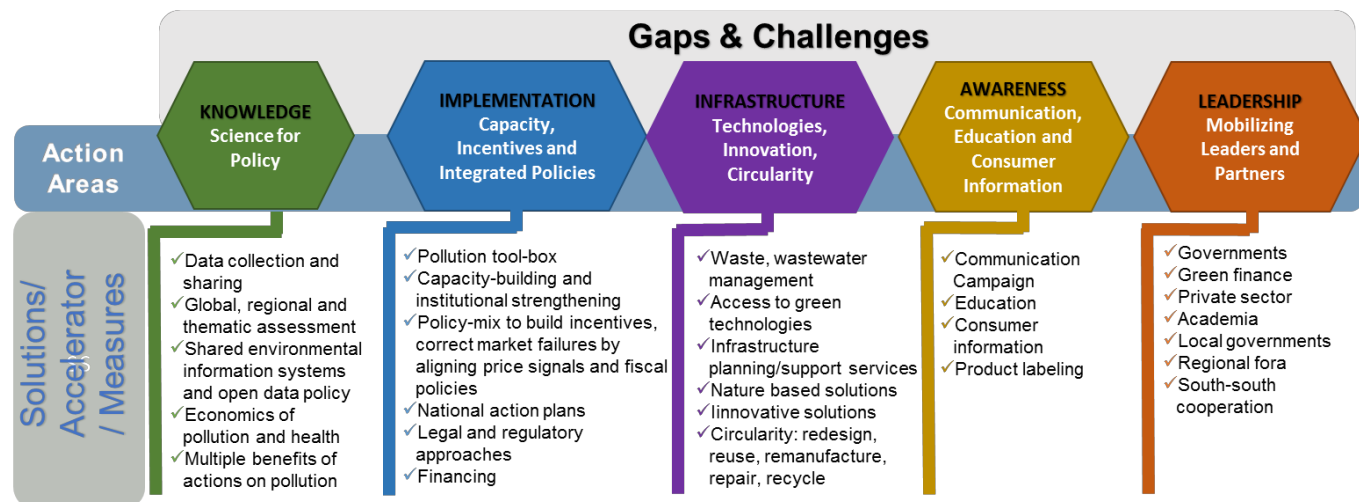


Figure 5: Key action areas and supporting solutions/accelerators and measures to address the challenges

For each action area, a number of high impact solutions/accelerators/measures have been identified. **These high impact solutions/accelerators aim at leveraging and accelerating action across pollution dimensions rather than addressing individual focus on pollutant sources.** To ensure impact on the ground, actions will need to be scaled to national and sub-national levels.

UN Environment will contribute to each action area to the extent that is covered through the implementation of the Programme of Work and relevant resolutions. As described above, however, the full implementation requires partnership with other UN and non-UN entities, as well as unilateral action by Member States.

3.1 Knowledge - Science for Evidence-based Policy

Access to pollution-related information has improved dramatically alongside advancements in information technology. Lack of information on hazardous substances in supply chains however remains a major barrier to achieving resource efficiency and a circular economy as it can significantly reduce the re-use and recycling potential for products and materials. In addition, even if the already existing evidence of the physical and economic cost of pollution already provides a clear-cut case for immediate action, in order to bring on board relevant ministerial departments, a more comprehensive picture to inform evidence-based decision-making is required that identifies a manageable number of cost-effective measures - from an environmental perspective, but also from a health and economic perspective- to help prioritize, as well as make a better case for their adoption and enforcement (e.g. as is the case for example on short-lived climate pollutants, through the Climate and Clean Air Coalition identification of the 16 most effective measures).

Proposed accelerators on knowledge

1) Using geo-spatial data to inform decision-making and map pollution hot-spots	
Some forms of pollution are highly localized whereas others are diffuse and transboundary. Geographical information systems mapping tools can provide new insights into opportunities for targeted interventions through the layering of bio-physical data sets with socio-economic data sets to map pollution “hot spots”. Open access to such information in relation to existing pollution sources or pollutants and vulnerable populations would contribute to address the knowledge gap that some countries may face when identifying hotspots and prioritizing action, while providing comprehensive and science-based open information on pollution.	
<i>Deliverable:</i>	Open source maps using geo-spatial data of pollution, dynamics of dispersion combined with population density, exposure and risk, protected areas or other bio-physical or socio-economic datasets
2) Understanding the environment and health nexus through assessments of the costs of pollution on human capital and productivity	
Pollution has significant economic costs resulting from impacts on human health, human capital, productivity losses, health-care costs and ecosystem damages.	
<i>Deliverable:</i>	✓ Report on costs of pollution to human capital and implications for poverty reduction;
3) Strengthening quality and analysis of pollution-related data and identifying long term trends.	
There is a need to build capacity in countries to collect high-quality, timely comparable data on pollution, including geospatial data. The availability of national systems which collect data and use data to produce statistics underlines the ability to conduct assessments, create geospatial maps and evaluate the economics of pollution (see above). Building statistical capacity requires the availability of globally agreed methodologies, training and guidance materials and investment in national statistical systems. Additionally, for this information to become more discoverable at the global level there is a need for improved global reporting mechanisms (building upon the MEAs, the Global Platform on Air Quality and Health, GEMS Water, the SDG reporting process, and other existing mechanisms).	
<i>Deliverables:</i>	<ul style="list-style-type: none"> ✓ A key set of pollution-related statistics which can be used to assess the status and impacts of pollution ✓ Data and methodologies developed and available across pollution areas, including on water quality, air quality, waste management, hazardous wastes and marine pollution ✓ Capacity building support to countries to improve the ability of national statistical systems to compile and use pollution related statistics

Key partners/partnerships:

UN Environment’s “Environment Live” provides a platform for sharing data and information. The GEO process, the Global Chemicals Outlook and regional assessments such as the upcoming Africa Assessment performed under CCAC’s Regional Assessment Initiative are opportunities to collect data, share information and build capacity. The Global Environment Outlook also offers a periodic analysis of high-level interactions across all environmental issues, with i.e. pollution clearly emerging as a key issue requiring attention as part of systemic approaches in the upcoming sixth edition of the Global Environment Outlook (GEO-6, in prep.). A multidisciplinary approach to the environment-health nexus is required to organize and analyze data and information across sectors. Economic analysis, for example, is required to demonstrate multiple benefits of actions on pollution whereas linking environment and health data allows for further analysis as to how addressing pollution may help tackling health issues.

Many of these impact actions are part of the Programme of Work but some go beyond and look to other partnerships.

3.2 Implementation – Rules, Enforcement Capacity, Incentives and Integrated Policies

The ability to implement actions on pollution relate to having policy instruments in place – regulatory, market or voluntary and enforcement capacity. While many relevant policy tools and capacity building efforts exist, the challenge is in tailoring them to specific issues on the ground and use pollution disclosure information to assist enforcement and monitoring. In the context of the rising scale and scope of global value chains, policies and agreements can help internalize the environmental and social costs of pollution while facilitating the development and diffusion of publicly available pollution prevention and abatement technologies, goods, services and harmonization of approaches and standards. Instruments such as government procurement, subsidies, tariff reductions for environmental goods, and market access for environmental services can provide effective incentives to promote pollution reducing technologies and actions and foster innovative solutions to pollution.

Key partners/partnerships:

Given UN Environment’s non-resident status, partnership is again essential. Existing mechanisms such as the Partnership for Action on Green Economy could be vehicles for delivering this action area, as are the UN Development reforms. Also important is working with cities and national focal points through regional and country offices and the resident coordinator’s system in partnership with development cooperation agencies.

Proposed accelerators on implementation

1) A pollution solutions tool-box	
<i>Rationale and key elements:</i> There are some existing and new methodologies and tools to support integrated policy and decision-making on pollution, environment and health. The development of integrated environment and health risk and impact assessment has been requested in the UNEA3 ‘Environment and Health’ resolution. Using the pollution knowledge sharing facility, the various methodologies, solutions, capacity-building programmes and legal tools will be made available, as well as the results of the assessment conducted when available.	
<i>Deliverables:</i>	<ul style="list-style-type: none"> ✓ Mapping of existing methodologies and tools on pollution, environment and health ✓ Methodologies and tools on pollution, environment and health, and the results of assessments conducted (when publicly available) are made available
2) Stimulating good practices through fiscal policies	
<i>Rationale and key elements:</i> Fiscal policy through revenue generating measures such as taxes and charges as well as government expenditures could provide incentives to discourage polluting activities or the use of polluting products in a cost-effective way. At the same time, by removing existing price distortions that generate perverse incentives such as environmentally harmful subsidies, fiscal policy reforms could reduce pollution and improve associated health impacts. In practice, the use of fiscal instruments in reducing pollution and associated health impacts is limited, particularly in the developing world and there is still a knowledge gap on how to optimize the use of such instruments due to a lack of empirical evidence, data, and assessments.	
<i>Deliverables:</i>	<ul style="list-style-type: none"> ✓ Collection of good practices on effective use of fiscal instruments for pollution reduction ✓ Evaluation of the performance of fiscal policy instruments through a few country specific studies to shed light on much needed empirical evidence on various factors that are needed for an effective use of fiscal policy for pollution reduction
3) Integrated cross-sectoral capacity building on pollution, environment and health	

<i>Rationale and key elements:</i> Siloes between the environment and health communities and with other sectors results in a lack of preventive action on pollution that could save lives, reduce burden on the health system and health costs and enhance worker productivity. In addition, as indicated in the World Bank evaluation report on pollution, countries frequently struggle to identify pollution priorities	
<i>Deliverables:</i>	<p>A capacity building programme in partnership with other UN entities and in line with UNEA resolutions, on pollution, environment and health in countries/cities targeting mid-level decision-makers, industry managers, and officials across relevant sectors to:</p> <ul style="list-style-type: none"> ✓ Support countries and cities to prioritize pollution concerns in countries and a range of policy and regulatory options, based on an environment, health and pollution country/city assessment. This will also pave the way for more demand for infrastructure that prevent or reduce environmental degradation ✓ Build a network of partners to provide sustained policy and technical assistance for implementation of solutions locally which demonstrate highest economic, environment, climate and health cobenefits.

Many of these impact actions are part of the Programme of Work but some go beyond and look to other partnerships and initiatives. The newly established Global Plastics will also serve as accelerators for action on plastics pollution and circularity

3.3 Infrastructure – Technologies, innovation and sustainable consumption and production/ resource efficiency

Limited infrastructure for pollution management and prevention is a key reason why garbage is found strewn in places, plastic litter gets into the sea, or wastewater is not treated before being discharged. Circular approaches to minimize waste must be coupled, especially in the short term, with good waste collection, segregation, and disposal systems along with support to service and maintain waste infrastructure. While inroads are expanding across the globe, many countries still have limited access to the technologies for clean energy, e-mobility, water-saving irrigation systems, waste recycling, wastewater treatment, and ecosystem restoration. The maintenance and renovation of existing infrastructure and the value of nature-based solutions (e.g. wetlands for water purification) is often missed when assessing the economics of new projects. Further awareness raising is necessary. The Climate Technology Centre and Network, the International Environmental Technology Center, and other entities can facilitate choices of, and access to appropriate, publicly available technologies. UN Environment’s Environment and Trade Hub also supports trade in clean technology and innovative solutions to pollution.

Much greater efforts, however, are required to engage the private sector, where most of the technological innovations come from. There are opportunities to enhance the role and engagement of the private sector for SAICM and the sound management of chemicals and waste beyond 2020. Given the public-goods nature of research and development and the typical commercial risks involved in rolling out new technologies, public-private partnerships are essential for deploying innovative solutions. Such partnerships should also address issues of affordability, local production, and skilled labour in connection to the uptake of clean technologies.

The deployment of clean technologies underpinning the action areas requires green financing. Given the public goods nature of some infrastructure, and in particular much of the infrastructure related to pollution and health, public finances and policy support will be essential. The financing required for new

infrastructure is growing, but new research from the World Bank suggests that spending efficiencies and right policies are key to such investments. Having funds for operating and maintaining infrastructure and the supportive skills sets is another key aspect of financing pollution solutions.

Key partners/partnerships:

Provisioning of infrastructure goes beyond the work of UN Environment. This part of the plan will require the leadership of Multilateral Development Banks. However there are other accelerators that UN Environment can support in terms of identification and cases of innovative ecological infrastructure

Proposed accelerators on infrastructure

1) Making the case for innovative technologies and ecological infrastructure for pollution management and control and sharing lessons learned	
<i>Rationale and key elements:</i> Innovative technologies and nature-based solutions can play an important role in preventing and better managing pollution. The latest UN World Water Development Report shows that nature-based solutions are key to improving the supply and quality of water and that reservoirs, irrigation canals and water treatment plants are not the only water management instruments available. There are many other nature-based solutions which are often not utilized because of lack of knowledge of their existence or their maturity. An example is phytoremediation which uses plants to restore soils contaminated by heavy metals, such as those found in mine dumps and polluted industrial sites. There is a need to bring such innovative technologies and nature-based solutions to the forefront of the attention for them to be more widely used. Renewable energy technologies, such as photovoltaic or wind technologies, were once considered innovative or niche markets before being widely used.	
<i>Deliverable:</i>	Identification of innovative technologies, including nature-based solutions that address pollution, and conditions of use, and collection of case studies on their use

3.4 Awareness - Communication, Education and Consumer Information

A movement towards a pollution-free planet from the consumption side will require changes in collective and individual mindsets, values and behaviours, alongside changes in policies and regulations. Campaigns on risks and available solutions, pollution prevention and management, teaching materials in education curricula as well as improved consumer and product information play a strong role in enhancing awareness and enabling behavioural change at all levels. Greater pollution disclosure information through, for example, Pollutant Release and Transfer Registers and emission inventories, are mechanisms that track priority pollutants emitted to air, water and land at the national, local or ecosystem level. Pollutant Release and Transfer Registers address the interest and needs of local communities, the broader public and decision-makers to better understand which chemicals are emitted from specific facilities and in what amounts, and help improve awareness, but also enforcement capacity. Consumer Information and labelling can help build awareness

Key partners/partnerships:

Consumers are key to delivering on this action area. Existing tools include the following campaigns, which need to be extended and enhanced: Beat Pollution, Beat Plastic Pollution, Clean Seas, BreatheLife, UN Environment’s work on consumer information and eco-labeling is in essence a partnership with consumers to encourage and enable sustainable consumption behaviors.

Proposed accelerators on awareness

1) Promote consumer information (e.g. product information, chemicals in products)	
<i>Rationale and key elements:</i> Consumer information tools are critical to help citizens understand the composition of the products they are buying. Producers need to be incentivized to make such information available to the consumer. In particular, labelling and sharing information on chemicals in products in a manner that is adapted and understandable by users and increasing information sharing on chemicals-related exposure and risks can play a major role to drive behavioural change along supply chains. The Guidelines for Providing Product Sustainability Information developed under the One Planet Consumer Information Programme and the Chemicals in Products programme of the Strategic Approach to International Chemicals Management provide two key platforms to make progress, in addition and in complementarity to national labelling and certification initiatives.	
<i>Deliverable:</i>	to be further defined
2) Run global campaigns on pollution, environment and health	
<i>Rationale and key elements:</i> Public advocacy is indispensable to raise awareness of the pollution issues and risks for human health linked to exposure. However, for the campaigns to drive behavior change, and support actions of multiple actors, they need to present available solutions, with identification of the benefits for health, economics and climate and so on, focusing on win-win options, and bring about lifestyles change, suggesting alternatives to citizens. These campaigns are important elements to incentivize or support decision-makers and to place emphasis on the responsibility of producers to provide greener and more sustainable products and services.	
<i>Deliverables:</i>	Continue the existing campaigns: #CleanSeas, #Beatpollution, #BreatheLife and #BanLeadPaint
3) Education programmes on the dynamics of pollution (i.e. causes of pollution, life-cycle of pollutants) and youth mobilization for behavior change	
<i>Rationale and key elements:</i> To change the behavior of young people towards more sustainable practices in their home, but also in their future workplace, a modular education programme (adapted to the age and the environment young people live in) will be developed on the links between pollution, environment and health. This will be an educational tool that will help raise awareness among students and share knowledge on pollution, including linkages with climate change, biodiversity and lifestyles and on the available solutions.	
<i>Deliverables:</i>	Assist in developing relevant modules as input to ongoing environmental education programmes

Many of these impact actions are part of ongoing work in UN Environment but need scaling up and resources within the Programme of Work, but some go beyond and look to other partnerships.

3.5 Leadership – Mobilizing Commitment to Act on Pollution

To accelerate and upscale pollution action and enhance the level of ambition, strong leadership is needed, including from the private and finance sector. Engaging with the financial sector aiming at gearing finance towards the pollution agenda is critical for the success of the plan. Championing pollution issues, voluntary reporting on national actions and cooperation between countries, cities and groups can help bring to the fore success stories and opportunities to share knowledge, experiences of what did and did not work in countries, key sectors, and regions. It can reduce asymmetries of information and capacity, leverage actors and actions where they are most needed, highlight the multiple benefits of actions and shift focus from the global to the local, or vice versa. Partnerships also connect businesses and other stakeholder groups in different parts of the world. It will take vision and commitment, and above all leadership, to raise the bar on industry standards, come up with innovative solutions and set the policies in place to unlock private finance.

Key partners/partnerships:

A new dynamic will be developed for the sound management of chemicals and waste beyond 2020 at the fifth session of the International Conference on Chemicals Management in October 2020. The Governments of Sweden and Uruguay are leading a High Ambition Alliance on chemicals and waste for the future to include all stakeholders engaged in the voluntary multisector, multistakeholder Strategic Approach to International Chemicals Management. The Finance Initiative’s partnership with the financial sector can motivate investors’ leadership in demanding clean business practices. UN Environment can raise awareness with the private sector internally through the Finance Initiative (through the newly established Principles for Sustainable Insurance “Life & Health” Work Stream for instance) and through partnerships with Multilateral Development Banks and networks such as the Principles for Responsible Investment and UN Global Compact. The Fiscal Policy Network can influence finance ministries to take the lead in pricing polluting activities and mobilizing domestic resources for financing clean infrastructure. The BreatheLife campaign can build an alliance of cities who commit to clean air. Health practitioners can commit to support a cleaner planet for healthy people.

Proposed accelerators on leadership commitments

1) Incentivizing and redirecting finance and investments to reduce/eliminate pollution from existing economic activities	
<i>Rationale and key elements:</i> Financial regulators and institutions have an important role to play in preventing and mitigating pollution and reducing its negative impacts. They can do this for example by internalizing the costs of pollution in financial decisions. Pollution impacts that were previously considered by financial institutions to be externalities are becoming more material. ¹ A range of environmental risk analysis tools and techniques are already being developed, including the use of “environmental scenario risk analysis”, which then influence financial flows. They can also create incentives for reorienting financing away from companies and activities that pollute and towards greener technologies from any further investment or lending to companies or activities identified as highly polluting. Banks and investors can also provide preferential financing to solutions and projects that contribute to preventing and reducing pollution/environmental degradation. A new “Life and Health” insurance work stream is being created under the Principles for Sustainable Insurance (which secretariat is headed by UN Environment) to mobilize life insurers around key topics e.g. air pollution and resistance to antibiotics.	
<i>Deliverable:</i>	To be further defined
2) Engaging with regional meetings of ministers of environment and environment and health fora and initiatives	
<i>Rationale and key elements:</i> Regional meetings of ministers of environment are key leverage points to act on pollution and to reach out to other ministerial departments and sectors. Actions to intensify collaboration between health and environment ministries, including to identify joint priority areas, implement national environment and health action plans, and agree on mutually supportive and specific activities, are also a feature of a number of regional health and environment initiatives. They are closely connected with the pollution agenda, as pollution has significant impacts on human health and well-being ² .	
<i>Deliverable:</i>	Provide pollution related materials and agenda content to the existing regional fora of environment and health

¹ Financial institutions have been addressing environmental sources of risk for many years through compliance with regulation, voluntary industry policies and products such as environmental pollution liability insurance (also known as environmental impairment liability insurance). But these impacts have always previously been considered externalities.

² Several regions are fostering sectoral coordination between the environment and health sector through regional environment and health fora, including the African Inter-ministerial Conference on Environment and Health, Asia Pacific Forum on Environment and Health, European Environment and Health Ministerial Process and League of Arab regional states on Environment and Health.
<https://www.unenvironment.org/explore-topics/chemicals-waste/what-we-do/environment-health-and-pollution>.

3) Promoting the New Plastics Economy Global Commitment ('Global Commitment') with the Ellen MacArthur Foundation.

The Global Commitment provides a framework of committing and reporting on focus areas to align action from all stakeholders (governments and businesses across the value chain) to transition towards a circular economy for plastics.

Many of these impact actions are part of the Programme of Work but some go beyond and look to other partnerships.

PART 4- THE DELIVERY OF THE IMPLEMENTATION PLAN

Delivery of the Implementation Plan will need to be done through partnerships – facilitated and coordinated by UN Environment. UN Environment's role is to coordinate and build on its key normative functions and already significant in-house knowledge and actions through its Programme of Work. In addition to key normative functions and some support to country actions through mobilizing partnerships, UN Environment will support the implementation Plan through its Programme of Work as and where activities directly support the plan.

The United Nations Environment Assembly provides oversight of the Implementation Plan through its Committee of Permanent Representatives. The national focal points are nominated by countries and can be the same as those who now support sustainable consumption and production or the national designated entities (NDEs) of the CTCN or the national officers that support MEAs to ensure efficiency and coordination.

4.1 Coordination functions

In addition to contributing to the delivery of the Implementation Plan through its Programme of Work, UN Environment will fulfill coordination functions, which are key for the Plan to succeed. These include:

- **Building synergies**
 - ✓ Build synergies across activities on the various pollution areas (air, water, marine and coastal, land/soil, chemicals and waste) across UN Environment
 - ✓ Providing visibility to actions
- **Developing Partnerships**
 - ✓ Work with partners to support high impact solutions under each of the five main action areas
- **Knowledge Management - Exchange of best practices on pollution and innovative solutions**
 - ✓ Solutions and knowledge sharing function
- **Tracking progress and report**
 - ✓ On capacities to act on pollution
 - ✓ Pollution summary report (2021, 2031)

4.2 Resources and budget

The Implementation Plan needs resources. There is need to mobilize domestic resources, private sector engagement, global funds, support from Foundations and development finance to address pollution

4.2.1 Possible channels of funding for addressing pollution

Funding for pollution actions exists but needs to be mobilized:

- ✓ For example, the World Bank has a multi partner trust fund to support pollution management and environment health. More recently, it has funding to support the reduction of plastic pollution. These are funds that can be mobilized to support low income countries in various ways to build capacity on pollution actions.
- ✓ The global climate funds can support funding for projects that support carbon, short lived climate pollutants and also clean air that contribute to climate mitigation.
- ✓ The GEF can support actions on electronic waste, textiles, water quality and integrated city action.
- ✓ The development agencies can support through actions that support improved health and livelihoods of the poor and promote societal equity in line with the SDGs.
- ✓ Increased ambition level for SAICM and the sound management of chemicals and waste beyond 2020 may be coupled with enhanced resources and impact.
- ✓ Initiatives such as the Climate and Clean Air Coalition, the Global Alliance for Clean Cookstoves etc. can mobilize funds to support actions.
- ✓ Private sector actions and technologies must move towards green alternatives, including production feedstocks (supply chain) and downstream (use/post-use/waste) impacts. Internalising externalities can make economic sense for industry and governments alike.
- ✓ Some pollutions actions are already supported by UN Environment's programme of work. Other UN Agencies may also have funds to clean the environment for improved lives such as UNDP, UNICEF, ILO, and others. The UN Secretary-General reforms provide opportunities to work together on this issue to better support countries in the implementation of the SDGs.
- ✓ National development budgets should better take into account pollution prevention and management control measures. Adequate funding to sustainable development and implementation of relevant MEAs must be promoted in national budget processes, taking into account the high costs of inaction.
- ✓ Working with the finance sector towards positive impact finance is another opportunity to resource the plan.
- ✓ Foundations such as Rockefeller and others that support planetary health initiatives can also contribute in various ways.

4.2.2 Indicative budget for coordination of the plan

The Implementation Plan however, as discussed above, requires some level of coordination. These functions supported by UN Environment will need additional, incremental resources to ensure a proper delivery of the Implementation Plan. Table 4 shows the proposed indicative budget for the Implementation Plan and Table 5 the detailed activity budget related to the high impact solutions/accelerators.

Table 4: Indicative budget for the Implementation Plan (annual US\$)

Pollution Budget Plan - Yearly Cost Estimates (USD)		
Location	Staff and Other Costs	Yearly Budget
Nairobi	Head of Coordination Unit - P5	211,200
	Programme Officer - P3	154,800
	Programme Assistant - GS	53,000
	Operation Costs	27,600
	Travel	125,000
	Activities	1,525,610
	Subtotal:	2,097,210
	PSC	272,637
Grand Total		2,369,847

Table 5: Table 5: estimates of details of activity budget

HIGH IMPACT SOLUTIONS/ACCELERATORS	BUDGET ESTIMATES
	(USD)
KNOWLEDGE	
1) Geo-spatial data to inform decision-making and map pollution hot-spots	140000
2) Highlight environment and health nexus through assessments of costs of pollution on human capital and productivity	100000
3) Strengthening quality and analysis of harmonized data, and identifying long term trends.	260000
SUBTOTAL	500000
IMPLEMENTATION	
1) A pollution solutions tool-box	50000
2) Stimulating good practices in countries through fiscal policies	150000
4) Integrated cross-sectoral capacity building (training) on pollution, environment and health	150000
SUBTOTAL	350000
INFRASTRUCTURE	
1) innovative technologies and ecological infrastructure for pollution management and control and sharing lessons learned	150000
SUBTOTAL	150000
AWARENESS	
1) Promote consumer information (e.g. product information, chemicals in products)	900000
2) Run global campaigns on pollution, environment and health	65000
3) Education programmes on the dynamics of pollution (i.e. causes of pollution, life-cycle of pollutants) and youth mobilization	50000
SUBTOTAL	205000
LEADERSHIP	
1) Incentivizing and redirecting finance and investments to reduce/eliminate pollution from existing economic activities	5610
2) Engage with regional meetings of ministers of environment and environment and health fora and initiatives	50000
SUBTOTAL	55610
CROSS CUTTING ACTIVITIES FOR INCREASED COHERENCE AND COORDINATION	
Information sharing	100000
Tracking progress	150000
SUBTOTAL	250000
TOTAL	1525610

4.2.3 Estimates of the resources dedicated to pollution in UN Environment's Programme of Work

Figure 6 develops further Section 2.1 and maps the main areas under each sub-programme that relate to pollution and can therefore potentially contribute to the Implementation Plan.

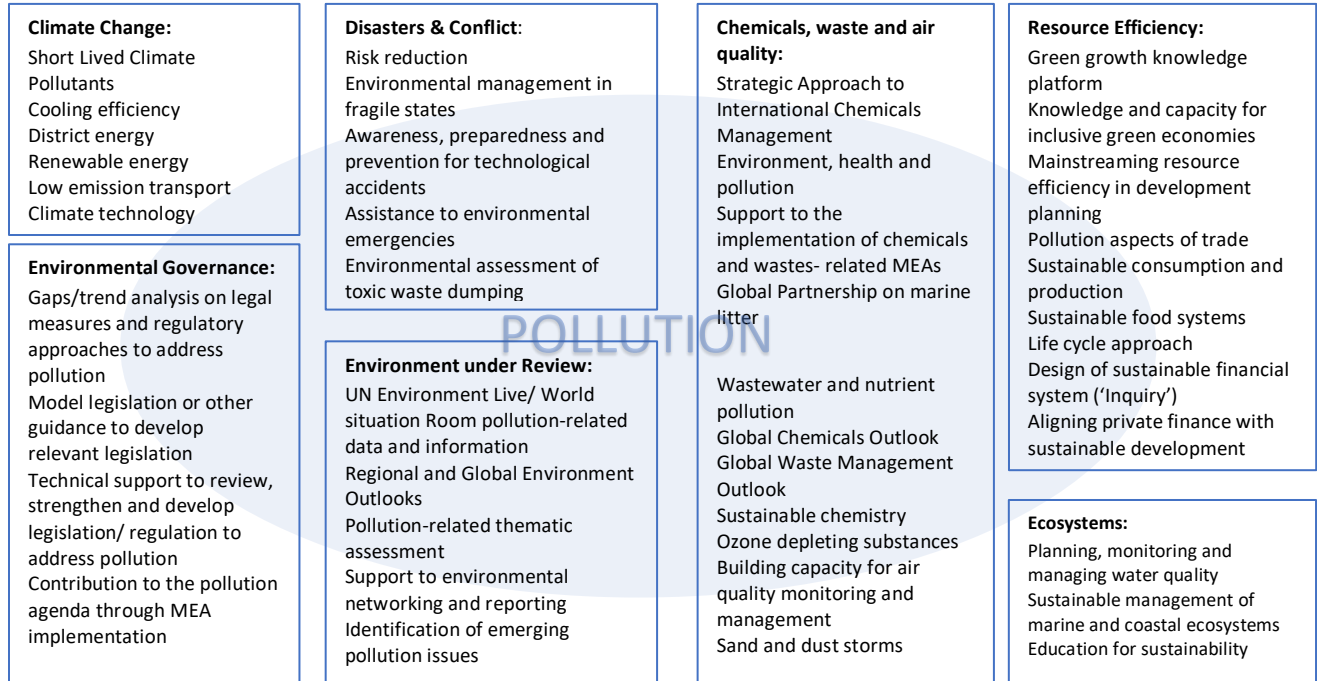


Figure 6: Elements in the Medium-Term Strategy 2018-2021 under each sub-programme that contribute to the Implementation Plan.

An analysis of the project portfolio under implementation and planned resulted in the identification of a sub-set of projects that partially or fully make a contribution towards a pollution free planet and therefore to the Implementation Plan over the next three years (on average a 39% contribution). This equals to an estimate of US\$ 196m in funding targeting pollution-related work under the sub-programmes in the remaining Medium-Term Strategy 2018-2021 period. However, the estimate should be considered tentative and an estimate for various reasons, including differences in project duration, the multidimensional nature of environmental action, different approaches to attribute percentages of direct contributions to pollution action, the inclusion of planned projects without secured funding and other data limitations faced due to the severe time constraints. **The Implementation Plan adds an incremental US\$2.37 million/year budget of which approximately US\$500k is for staffing, to UN Environment's Programme of Work and Budget.**

ANNEXES

**TO THE SECOND DRAFT OF THE UNEA3 IMPLEMENTATION PLAN
“TOWARDS A POLLUTION-FREE PLANET”**

Annex 1: Contribution of addressing different dimensions of pollution to implementation of the Sustainable Development Goals

By tackling pollution through existing multilateral environmental agreements and other international initiatives, important synergies and multiple benefits can be obtained - including making progress towards achieving specific Sustainable Development Goal targets. This could serve as a basis for identifying gaps in our ability to address (emerging) pollution issues – either by strengthening the existing system or develop new responses that are fit for purpose.

The four graphs below show how addressing (i) air, (ii) freshwater, (iii) land/soil and (iv) marine and coastal pollution through existing multilateral environmental agreements and other international initiatives can – directly (solid arrows/ goals) or indirectly (transparent arrows/ goals) - contribute to the implementation of the Sustainable Development Goals.



Annex 2: Mapping of environment, health and pollution related UNEA resolutions and Action Areas to address challenges

Mandates from the UNEA resolutions relevant to Action Area 1 - Knowledge		
Resolution	Mandates to UN Environment (in blue) with partners (in purple)	Mandates/calls for action to Member States (in green) with partners (in yellow)
UNEA3 Environment and Health	<ul style="list-style-type: none"> ✓ Report on the environment and health impacts of pesticides and fertilizers; ✓ Share studies on the impacts of pesticides on human and environmental health and peer reviewed epidemiological studies; ✓ Support Member States to identify and characterize the human and animal health risk, and risk to biodiversity and ecosystems, arising from anthropogenic sources antimicrobial resistance in the environment; ✓ Report on environmental impacts of antimicrobial resistance and the causes for development and spread of resistances in the environment; ✓ Assess and report on the health co-benefits of UN Environment current climate change related projects; ✓ Include human health factors in UN Environment projects on ecosystem valuation and accounting and assess the health co-benefits of its current biodiversity-related projects; ✓ Inclusion of an indicator on health and well-being impacts in the Indicators of Success Framework for the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns 	<ul style="list-style-type: none"> ✓ Facilitate dialogue across all level governments to consider health and biodiversity linkages and strengthen national research, monitoring capacity-building capacities; (science)
UNEA3 Marine litter and microplastics	<ul style="list-style-type: none"> ✓ Support countries in closing data gaps and improving data availability on sources and extent of marine litter and microplastics in the environment; 	<ul style="list-style-type: none"> ✓ Establish common definitions and harmonized standards and methodologies for measurement and monitoring of marine litter and microplastic
UNEA3 Air pollution	<ul style="list-style-type: none"> ✓ Continue to support countries in putting in place affordable air quality networks to raise awareness on pollution levels and produce regional assessments of capacity needs; ✓ Support Member States in identifying, prioritizing and addressing key sources of air pollution; ✓ Assess progress made by Member States to adopt and implement key actions to improve air quality 	<ul style="list-style-type: none"> ✓ Establish systems to monitor air pollution to support improved air quality management; ✓ Strengthen capacities to develop national and subnational emissions inventories;
UNEA3 Soil	<ul style="list-style-type: none"> ✓ Report on the extent and future trends of soil pollution and risks and impacts of soil pollution on health, the environment and food security; 	<ul style="list-style-type: none"> ✓ Promote research and development that contribute to controlling and managing soil pollution; ✓ Promote coherent and coordinated data collection and management, and information sharing on soil pollution ✓ Develop information systems of polluted sites and programmes that invest in the sustainable land management and research aimed at preventing, reducing and managing soil pollution
UNEA3 Water	<ul style="list-style-type: none"> ✓ Develop a World Water Quality Assessment ✓ Support countries in data collection, analysis and sharing; ✓ Build upon the GEMS/Water Trust Fund to assist developing countries in water quality monitoring; ✓ Compile and share analytical and technical requirements for water quality testing for contaminants; ✓ Provide technical support to facilitate monitoring and reporting on SDG 6; 	<ul style="list-style-type: none"> ✓ Improve water quality data collection and data sharing on a voluntary basis; ✓ Establish and improve water quality monitoring networks, promote streamlined national standardized monitoring and reporting mechanisms ✓ Continue to improve integration and coordination of the UN on water-related goals and targets; ✓ Enhance public access to information on water quality status and requirements for different water uses;
UNEA3 Armed conflict		<ul style="list-style-type: none"> ✓ Collect data to identify health outcomes and integrate them into health registries and risk education programmes;
UNEA2 Chemicals and waste	<ul style="list-style-type: none"> ✓ develop relevant data, including supplementary indicators to support the indicators of the United Nations Statistical Commission; ✓ issue an overview for policymakers on policies and actions that could be adopted; ✓ update the Global Waste Management Outlook and the Global Chemicals Outlook in accorded timing and approach ✓ issue an update of the Global Waste Management Outlook ✓ Prepare regional waste management outlooks to enhance the availability of information ✓ Provide access to available information on best available techniques and technologies 	

	<ul style="list-style-type: none"> ✓ develop work in the field of technology assessment through tools such as a methodology for sustainability assessment of technologies to enable decision makers to select the most appropriate technologies for achieving the environmentally sound management of waste; ✓ prepare a report to assist Strategic Approach to International Chemicals Management in considering the opportunities presented by sustainable chemistry ✓ Submit an update of the Global Chemicals Outlook 	
UNEA2 Sustainable consumption and production	<ul style="list-style-type: none"> ✓ Establish implementing measures for the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns; ✓ Monitoring and evaluating progress towards implementing the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns through the indicator framework; ✓ Supporting statistical capacity-building in developing countries for adequate measurement, follow-up and review of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, ✓ Facilitate sharing of information and best practices within and between the programmes and activities of the United Nations Environment Programme; ✓ Continue to provide scientific and expert support through the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns; ✓ Invite the International Resource Panel to make available reports relevant to this resolution, no later than 2019; 	<ul style="list-style-type: none"> ✓ Improve the availability of information that enables consumers, investors, companies and Governments to make informed decisions;
UNEA2 Prevention, reduction and reuse of food waste	<ul style="list-style-type: none"> ✓ Explore opportunities to collaborate with UNIDO to expand use of the products of food loss and waste as feedstock for biogas generation and composting; 	<ul style="list-style-type: none"> ✓ Participate in existing international efforts regarding improved methodologies to better measure food loss and waste generation and the socioeconomic and environmental benefits of achieving efficient and sustainable food systems;
UNEA2 Marine plastics and microplastics	<ul style="list-style-type: none"> ✓ Assess the effectiveness of international, regional and sub-regional governance strategies and approaches to combat marine plastic litter and microplastics; ✓ Establish harmonized international definitions, terminology, and compatible standards and methods for the cost-effective monitoring and assessment of marine plastic debris and microplastics; 	<ul style="list-style-type: none"> ✓ Support more research on marine plastic debris and microplastics (chemicals, human health, etc.);
UNEA 1 Chemicals and waste	<ul style="list-style-type: none"> ✓ provide compilation of information on techniques for lead emission abatement; ✓ consider the interlinkages between chemicals and waste policies in the global outlook on waste prevention, minimization and management; 	
UNEA1 Marine plastics and microplastics	<ul style="list-style-type: none"> ✓ Undertake a study on marine plastic debris and marine microplastics, inclusive of identification of sources of marine plastic debris and microplastics, possible preventing measures, recommendations, specification of areas in need of more research; ✓ Contribute to the study above (the secretariats of the Stockholm Convention on Persistent Organic Pollutants, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the secretariats of the Convention on Biological Diversity, the Convention on Migratory Species and the regional seas conventions and action plans); ✓ Present the study on microplastics for the consideration of UNEA 2; 	<ul style="list-style-type: none"> ✓ Share relevant information pertinent to the study on marine plastics debris and marine microplastics; ✓ provide financial and other support to conduct the study on marine plastics debris and marine microplastics;
UNEA1 Air quality	<ul style="list-style-type: none"> ✓ facilitate the operation of existing intergovernmental programmes on the assessment of air quality issues; ✓ undertake global, regional and subregional assessments focused on identifying gaps in capacity to address air quality issues 	<ul style="list-style-type: none"> ✓ make air quality data more easily accessible and understandable to the public
UNEA1 Global Environment Monitoring System/Water Programme	<ul style="list-style-type: none"> ✓ Collaborate with member states identify additional key elements of GEMS/Water, and ensure the necessary resources for GEMS/Water to efficiently operate ✓ Discuss to build a consistent database in GEMStat, supporting UNEP Live and informing sustainable development policies 	<ul style="list-style-type: none"> ✓ improve the global coverage and consistency of water quality data, expand the GEMS/Water network, establish cooperation with the GEMS/Water in building a reliable global freshwater monitoring and information system ✓ approach GEMS/Water for support in capacity development efforts, improving freshwater monitoring systems and technology

Mandates from the UNEA3 resolutions relevant to Action Area 2 - Implementation		
	Mandates to UN Environment (in blue) with partners (in purple)	Mandates/Calls for action to Member States (in green) with partners (in yellow)
UNEA3 Environment and Health	<ul style="list-style-type: none"> ✓ Develop methods, tools and guidelines to promote integrated environmental and health risk assessments; ✓ Support countries in developing integrated environment and health policies and measures; ✓ Preventive and integrated approach on the increased risks of vector borne diseases due to climate change; 	<ul style="list-style-type: none"> ✓ Develop, adopt and implement effective measures, and national regulations to minimize the risks posed by chemicals; ✓ Join and/or implement the Basel, Minamata, Rotterdam and Stockholm Conventions; ✓ Implement the sound management of chemicals throughout their life-cycle; ✓ Consider measures to effectively manage waste and wastewater to minimize their contribution to antimicrobial resistance through environmental contamination;
UNEA3 Environment and Health	<ul style="list-style-type: none"> ✓ Develop methods, tools and guidelines to promote integrated environmental and health risk assessments; ✓ Support countries in developing integrated environment and health policies and measures; 	<ul style="list-style-type: none"> ✓ Develop, adopt and implement effective measures, and national regulations to minimize the risks posed by chemicals; ✓ Join and/or implement the Basel, Minamata, Rotterdam and Stockholm Conventions; ✓ Consider measures to effectively manage waste and wastewater to minimize their contribution to antimicrobial resistance through environmental contamination;
UNEA3 Marine litter and microplastics	<ul style="list-style-type: none"> ✓ Facilitate establishment and implementation of regional and national action plans to prevent and reduce litter and microplastics in the marine environment; ✓ Advise on the most environmentally sound and cost-effective measures to prevent and reduce litter and microplastics in the marine environment; ✓ Convene an Ad Hoc Open-Ended Expert Group to (1) examine the barriers to and options (including costs, benefits and feasibility) for combating marine plastic litter and microplastics; (2) identify response options; (3) identify their costs and benefits; (4) identify their feasibility and effectiveness; (5) identify potential options for continued work; ✓ UN Environment to provide secretariat support to the Ad Hoc Open-Ended Expert Group; ✓ At least one meeting of the Ad Hoc Open-Ended Expert Group to be convened before UNEA 4; 	<ul style="list-style-type: none"> ✓ Prioritize policies and measures to avoid marine litter and microplastics entering the marine environment; ✓ Implement the recommendations and actions in the UNEA 1/6 and 2/11 resolutions; ✓ Develop and implement action plans for preventing marine litter and microplastics encouraging resource efficiency; ✓ Include marine litter and microplastics in regional and national waste management plans and in wastewater treatment; ✓ Develop integrated and source-to-sea approaches to combat marine litter and microplastics; ✓ Measures to prevent marine litter and microplastics from sea-based sources to prevent and reduce damage from natural disasters; ✓ Include measures to prevent marine litter and microplastics in plans to prevent and reduce damage from natural disasters and increasingly severe weather events; ✓ Prioritize clean-up in the marine environment in areas where marine litter poses a significant threat to human health, biodiversity, wildlife or sustainable use and can be conducted cost-effectively and without harm to the ecosystems; ✓ Encourage innovative approaches such as the use of extended producer responsibility schemes, container deposit schemes;
UNEA3 Lead	<ul style="list-style-type: none"> ✓ Continue assisting countries to strengthen and enhance national, sub-regional and regional implementation of environmentally sound management of waste, including capacity building – in close cooperation with the Basel Convention Secretariat; ✓ Assist countries to eliminate the use of lead paint, in particular providing tools and capacity-building for developing national legislation and regulations; 	<ul style="list-style-type: none"> ✓ Develop, adopt and implement legislation/regulations to eliminate lead paint; ✓ Undertake actions throughout the value chain, including disposal, to remove the risks such paints pose; ✓ Develop national strategies to manage the collection of waste lead-acid batteries and address the issue of remediation of contaminated sites; ✓ Address releases, emissions and exposures from waste lead-acid batteries, including recycling, and utilizing appropriate standards and criteria;
UNEA3 Air pollution	<ul style="list-style-type: none"> ✓ Strengthen technical support provided by global and regional networks and enhance institutional capacity to develop air pollution action plans; ✓ Support developing countries in expanding the use of cleaner fuels for cooking; ✓ Assist in the implementation of the <i>Global Strategy to Introduce Low-Sulfur Fuels and Cleaner Diesel Vehicles</i>; ✓ Assist in the implementation of <i>Roadmap for Clean Fuel and Vehicle Standards in Southern and Western Africa and the African Sustainable Transport Forum Action Plan</i>; 	<ul style="list-style-type: none"> ✓ Integrate and strengthen air pollution management aspects in the national development agenda, and to internalize pollution costs; ✓ Consider using available tools, including BACA (Batumi Action for Cleaner Air), to inspire national action to improve air quality and protect public health and ecosystems; ✓ Set ambitious ambient air quality standards;

		<ul style="list-style-type: none"> ✓ Policies and measures to prevent and reduce air pollution from their significant sources; ✓ Include air pollutants that are also short-lived climate pollutants in national action programmes to prevent and reduce air pollution; ✓ Develop and implement national methane reductions strategies that could target key methane-emitting sectors; ✓ Prioritize measures to reduce particulate matter that also reduce black carbon emissions; ✓ Pursue synergies and co-benefits between national clean air policies and policies to take advantage of synergistic effects of efficient nitrogen management on reducing air, marine and water pollution;
UNE3 Soil	<ul style="list-style-type: none"> ✓ Technical guidelines for the prevention and minimization of soil contamination; ✓ Support governments to strengthen and coordinate national and regional policies and legislation to curb soil pollution; ✓ Cooperate on efforts geared at preventing, reducing and managing soil pollution; 	<ul style="list-style-type: none"> ✓ Formulate new and strengthen existing strategic interventions, policies and legislation, aimed at setting norms and standards to prevent, reduce and manage soil pollution; ✓ Integrated response through preventive approaches and risk management using available science;
UNE3 Water	<ul style="list-style-type: none"> ✓ Assist developing countries by strengthening their capacity to reach the target of halving by 2030 the amount of untreated wastewater reaching water bodies; ✓ Support Member States to develop programmes for the management of land and ecosystems to prevent pollution of water sources; ✓ Develop tools to support countries to address water pollution, implement integrated water resources management approaches and address impacts of disasters; ✓ Address issues related to water pollution and build upon the 2016 Snapshot of the World's Water Quality and recommendations made by the Analytical Brief "Towards a Worldwide Assessment of Freshwater Quality"; 	<ul style="list-style-type: none"> ✓ Use the "Framework for freshwater ecosystem management" to protect and restore water-related ecosystems, create effective governance structures, develop national standards for water quality and set up water quality monitoring; ✓ Policy development and implementation for integrated water resources management and investment in the protection and restoration of water-related ecosystems; ✓ Improve capacity to tackle accidental pollution risk; ✓ Strengthen preparedness to address waterborne disease issues, after diseases and during disease outbreaks; ✓ Strengthen cooperation to exchange knowledge, know-how and best practices; ✓ Collaborate and share best practices on data collection and monitoring for reporting on water quality and quantity purposes;
UNE3 Biodiversity	<ul style="list-style-type: none"> ✓ Cooperate with the Secretariat of the Convention on Biological Diversity on the implementation of decisions of CBD COP 13 on aspects related to pollution mitigation through mainstreaming biodiversity into relevant sectors; 	<ul style="list-style-type: none"> ✓ Adopt practices for sustainable infrastructure, conservation of landscapes and ecosystems, sustainable use of land and marine spatial planning, and raise awareness of the multiple values of biodiversity; ✓ Establish, strengthen or foster institutional, legislative and regulatory frameworks; ✓ Support sustainable consumption and production, the application of clean technologies, the elimination, phasing out or reform of incentives harmful to biodiversity, and strengthening of positive incentives; ✓ Promote the creation of standards and good practice guidelines;
UNE3 Innovative solutions		<ul style="list-style-type: none"> ✓ Adopt, measures for preventing, reducing and reversing ecosystems degradation and loss; ✓ Promote environmentally sound innovative policies for sustainable industrialization, agriculture, urban development, transport, tourism and trade, and sustainable consumption and production in these key sectors;
UNE3 Armed conflict		<ul style="list-style-type: none"> ✓ Take measures to minimize and control pollution in situations of armed conflict or terrorism; ✓ Encourage all actors at the national level to participate in the preparation of the national plans and strategies aiming at setting priorities for environmental assessment and remediation projects; ✓ Provide technical assistance to implement international agreements on the environmentally sound management of chemicals and wastes and help build effective environmental governance;

<p>UNEA2 Chemicals and waste</p>	<ul style="list-style-type: none"> ✓ Coordinate with relevant international stakeholders and support Member States on policies and actions for the sound management of chemicals and waste ✓ support the intersessional process agreed on at the fourth session of the International Conference on Chemicals Management to prepare recommendations on the sound management of chemicals and waste beyond 2020, and foster the involvement of industry stakeholders; ✓ take measures to promote the sound management of chemicals and waste; ✓ support countries, particularly developing countries, in the implementation of the integrated approach to financing for the sound management of chemicals and waste ✓ ensure full integration of environmentally sound management of waste in the and policies of the UN Environment; ✓ strengthen the International Environmental Technology Centre, coordinate with stakeholders and partners to support capacity-building for national- and municipal-level waste policies, strategies and action plans ✓ Facilitate capacity-building and technology demonstration projects to promote the “3R” (reduce, reuse and recycle) approach ✓ Provide capacity-building in developing countries, in particular least developed countries, to implement regulatory frameworks and programmes for the recycling of waste lead-acid batteries ✓ Solicit feedback from countries and other stakeholders on the proposed plan for updating the Global Chemicals Outlook ✓ Ensure that the updated Global Chemicals Outlook addresses emerging issues 	<ul style="list-style-type: none"> ✓ reflect the sound management of chemicals and waste as a priority in national sustainable development planning processes, poverty eradication strategies and relevant sector policies; ✓ consider opportunities to report on how the respective conventions contribute to the implementation of Agenda 2030 ✓ Calls on the private sector to play a significant role in financing, and to build the capacity of small and medium-sized enterprises for the sound management of chemicals and waste within relevant industrial sectors; ✓ all stakeholders to cooperate with the UN Environment to implement the necessary waste management policies ✓ develop national strategies inter alia by encouraging extended producer responsibility to collect waste lead-acid batteries ✓ To adequately address releases, emissions and exposures from waste lead-acid batteries, including recycling, through, for example, appropriate standards and criteria; ✓ collect waste lead-acid batteries for processing at regional or national recycling facilities ✓ take measures to ratify, accept, approve or accede to the Minamata Convention on Mercury
<p>UNEA2 Sustainable consumption and production</p>		<ul style="list-style-type: none"> ✓ Strengthen the enabling conditions for the creation of sound and equitable markets for secondary materials; ✓ Take steps to achieve SDG 12 and related targets in other SDG, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns; ✓ Promote life-cycle approaches, including resource efficiency and sustainable use and management of resources, as well as science-based and traditional-knowledge-based approaches, cradle-to-cradle design and the “3Rs” concept (reduce, reuse and recycle); ✓ Promote the integration of sustainability into each stage of the life cycle of goods and services; ✓ Design and implement national sustainable consumption and production policies and action plans; ✓ Take action to implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns and to achieve goals and targets of the 2030 Agenda for Sustainable Development that are related to sustainable consumption and production; ✓ Promote public procurement practices that are sustainable; ✓ Further develop and implement sustainable urban development policies that promote resource efficiency and resilience;
<p>UNEA2 Prevention, reduction and reuse of food waste</p>		<ul style="list-style-type: none"> ✓ Implement programmes including market-based incentives that reduce food waste, and promote at all stages of the food value chain reuse of edible food; ✓ Develop programmes to prevent and reduce food loss and waste along the whole food value chain and promote the environmentally sound management of food loss and waste;
<p>UNEA2 Marine plastics and microplastics</p>	<ul style="list-style-type: none"> ✓ Evaluate, and possibly implement the Executive Director’s recommendations on the Assembly’s resolution 1/6 on marine plastic debris and microplastics including through strengthened national, regional and international measures, cooperation and action plans; ✓ Assist in the development and implementation of national or regional measures and action plans; invite those in a position to do so to support such action; 	<ul style="list-style-type: none"> ✓ Implement relevant recommendations and decisions of the resolution 1/6, “Marine plastic debris and microplastics” , including through national measures and regional, international and cross-sectoral cooperation; ✓ Collaborate to establish (regional) action plans to combat marine litter;

		<ul style="list-style-type: none"> ✓ Establish and implement necessary policies, regulatory frameworks and measures on the prevention and environmentally sound management of waste; ✓ Include measures on mitigation and clean-up of abandoned, lost or discarded fishing gear in national and regional action plans to combat marine litter; ✓ Phase out of the use of primary microplastic particles in products; ✓ Undertake nationally prioritized measures, as outlined in the findings of the 2016 study of UNEP on marine plastic debris and microplastics; ✓ Product manufacturers and others to consider the life cycle environmental impacts of products containing microbeads and compostable polymers;
UNEA1 Chemicals and waste	<ul style="list-style-type: none"> ✓ establish and administer trust fund for the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach to International Chemicals Management, and to provide a secretariat to deliver administrative support to the Programme; ✓ continue to support the Strategic Approach to International Chemicals Management; ✓ invites the Director-General of WHO to assume a leading role in the Strategic Approach and to provide resources to its secretariat; ✓ continue to build capacity on lead paint through possible regional workshops; 	<ul style="list-style-type: none"> ✓ support the implementation and further development of the Strategic Approach to International Chemicals Management;
UNEA1 Marine plastics and microplastics	<ul style="list-style-type: none"> ✓ Support countries in the development and implementation of national or regional action plans to reduce marine litter; 	<ul style="list-style-type: none"> ✓ Promote the more resource-efficient use and sound management of plastics and microplastics; ✓ Take action to address the marine plastic debris and microplastic issue through, legislation, enforcement of international agreements, provision of adequate reception facilities for ship-generated wastes, improvement of waste management practices and support for beach clean-up activities, as well as information, education and public awareness programmes;
UNEA1 Air quality	<ul style="list-style-type: none"> ✓ undertake capacity-building activities on air quality to support Governments 	<ul style="list-style-type: none"> ✓ take action across sectors to improve air quality ✓ formulate action plans and establish and implement nationally determined ambient air quality standards, and establish emissions standards ✓ Governments that have not yet done so to consider becoming parties to the relevant global agreements addressing air pollution;
UNEA1 Global Environment Monitoring System/Water Programme		<ul style="list-style-type: none"> ✓ support national capacity development in providing standardization efforts for water-quality-related data collection, analysis, exchange and management, especially in developing countries
Mandates from the UNEA3 resolutions relevant to Action Area 3 - Infrastructure		
UNEA3 Marine litter and microplastics		<ul style="list-style-type: none"> ✓ Encourage innovative approaches such as the use of extended producer responsibility schemes, container deposit schemes;
UNEA3 Lead	<ul style="list-style-type: none"> ✓ Consider revising the “Technical Guidelines for the Environmentally Sound Management of Waste Lead-acid Batteries” regarding applying new technologies (Conference of the Parties of the Basel Convention); 	
UNEA3 Air pollution		<ul style="list-style-type: none"> ✓ Engage in regional cooperation on science, technology, policy, measures and best practices;
UNEA3 Water	<ul style="list-style-type: none"> ✓ Support Member States to create an enabling environment to address water pollution, including wastewater, through policies, laws and regulations, technologies and innovative finance; 	

UNEA3 Biodiversity		<ul style="list-style-type: none"> ✓ Support sustainable consumption and production, the application of clean technologies, the elimination, phasing out or reform of incentives harmful to biodiversity, and strengthening of positive incentives; ✓ Adopt practices for sustainable infrastructure, conservation of landscapes and ecosystems, sustainable use of land and marine spatial planning, and raise awareness of the multiple values of biodiversity;
UNEA3 Innovative solutions	<ul style="list-style-type: none"> ✓ Facilitate the strengthening of international cooperation by supporting countries in the promotion of innovative environmental solutions; 	<ul style="list-style-type: none"> ✓ Promote and invest in innovative environmental policy interventions and actions to accelerate the implementation of the 2030 Agenda; ✓ Promote and facilitate measures to strengthen innovative environmentally sound technologies; ✓ Promote environmentally sound innovative policies for sustainable industrialization, agriculture, urban development, transport, tourism and trade, and sustainable consumption and production in these key sectors; ✓ Develop and strengthen partnerships to promote and enhance investment in innovative environmental solutions; ✓ Facilitate and enhance innovative financing schemes, education, research and development, capacity-building, private and public partnerships and policy coherence;
Mandates from the UNEA3 resolutions relevant to Action Area 4- Awareness		
UNEA3 Environment and Health	Promote sustainable lifestyles and sustainable consumption and production patterns that would benefit the environment and human health, including through the promotion of public health campaigns;	<ul style="list-style-type: none"> ✓ Raise awareness on the negative impacts and risks of chemical pollutants (including in agro-chemicals, animal drugs and lead ammunition) on wildlife and encourage research on alternatives; ✓ Strengthen efforts in the areas of education and public awareness on linkages between health and environment, also noting the newly launched Guidelines for Providing Product Sustainability Information. ✓ Develop and implement communication strategies on the risks caused by chemical products and waste; ✓ Increase the awareness of the risks to human, animal and environmental health from the improper use of fertilizers and pesticides and promote measures to address them.
UNEA3 Marine litter and microplastics		<ul style="list-style-type: none"> ✓ Cooperation for knowledge sharing and awareness raising, including through the Global Partnership on Marine Litter;
UNEA3 Air pollution	<ul style="list-style-type: none"> ✓ Support developing countries on education and public awareness; ✓ Deliver information to stakeholders on the CCAC; 	<ul style="list-style-type: none"> ✓ Create awareness, including within the private sector, on the environmental, health and socio-economic negative impacts of pollution and on the economic benefits of taking action; ✓ Encourage cities and local governments to consider participating in the BreatheLife campaign;
UNEA3 Water		<ul style="list-style-type: none"> ✓ Participate in the 8th session of the World Water Forum, to be held in Brasilia from 19 to 23 March 2018; ✓ Education and training to promote a shift to SCP;
UNEA3 Biodiversity		<ul style="list-style-type: none"> ✓ Adopt practices for sustainable infrastructure, conservation of landscapes and ecosystems, sustainable use of land and marine spatial planning, and raise awareness of the multiple values of biodiversity;
UNEA3 Armed conflict	<ul style="list-style-type: none"> ✓ For the Executive Director of UN Environment to continue undertaking field visits to affected areas upon the invitation of the affected State; 	

UNEA2 Sustainable consumption and production		<ul style="list-style-type: none"> ✓ Exchange of experiences and capacity-building on life-cycle approach; ✓ Integrate sustainable consumption and production into education and training;
UNEA2 Prevention, reduction and reuse of food waste	<ul style="list-style-type: none"> ✓ Strengthen efforts to disseminate information on waste management, including on the technologies available to prevent food loss and the reuse of food waste (with FAO); ✓ Continue to raise awareness of the environmental dimensions of food waste, and of potential solutions and good practices for preventing and reducing food waste (with FAO); 	
UNEA2 Marine plastics and microplastics		<ul style="list-style-type: none"> ✓ Organize/participate in awareness-raising campaigns on prevention and environmentally sound clean-up of marine litter, and support and supplement the civil-society-driven beach clean-up days;
UNEA1 Air quality	<ul style="list-style-type: none"> ✓ raise awareness of risks of air pollution and the multiple benefits of improved air quality 	
Mandates from the UNEA3 resolutions relevant to Action Area 5- Leadership		
UNEA3 Environment and Health	<ul style="list-style-type: none"> ✓ Partnership with relevant organizations to avoid duplication and improve effectiveness on the environment and health nexus; ✓ Report to the CPR on the ongoing consultations between UN agencies on joint activities on climate change, environment and health, including on the preparation of a joint plan; 	<ul style="list-style-type: none"> ✓ Engage in on-going intergovernmental regional processes addressing the health and environment nexus; ✓ Engage in intersessional process considering the Strategic Approach and the sound management of chemicals and waste beyond 2020; ✓ Follow up on the issues addressed in the Marrakech Ministerial Declaration on Health, Environment and Climate Change; ✓ Strategies to enhance resource efficiency along the full life-cycle of products;
UNEA3 Marine litter and microplastics	<ul style="list-style-type: none"> ✓ Strengthen the contribution of UN Environment to the Global Partnership on Marine Litter; ✓ Increase and coordinate actions to prevent and reduce marine litter and microplastics and their harmful effects; 	<ul style="list-style-type: none"> ✓ Encourages cooperation, including through the Global Partnership on Marine Litter and its regional nodes;
UNEA3 Lead		<ul style="list-style-type: none"> ✓ Support the development of private sector strategies to eliminate lead paint; ✓ Cooperate in collecting waste lead-acid batteries for environmentally sound processing at regional or national recycling facilities; ✓ Become a partner of the Lead Paint Alliance; ✓ Continue to support the Global Partnership on Waste Management;
UNEA3 Air pollution	<ul style="list-style-type: none"> ✓ Support the enhancement of regional cooperation to address air pollution and organize regional communities of practice for air quality; ✓ Platform for cooperation and information-sharing and capacity-building resources and online tools; ✓ Assess gaps in, and opportunities for, mitigation; and cooperation to advance a shared response; 	<ul style="list-style-type: none"> ✓ Consider joining or cooperating with relevant global initiatives such as the Climate and Clean Air Coalition and the Global Methane Initiative; ✓ Engage in regional cooperation on science, technology, policy, measures and best practices; ✓ Knowledge sharing among existing and any future regional cooperation fora; ✓ Promote increased cooperation between UNEP and relevant international organisations on air quality; ✓ Maximize efficiencies and synergies between contributions of partners, International Financing Institutions and other funding organizations; ✓ Strengthening inter-governmental cooperation; ✓ Contribute to technical and financial support towards regional and national initiatives;
UNEA3 Water	<ul style="list-style-type: none"> ✓ Support Member States to create an enabling environment to address water pollution, including wastewater, through policies, laws and regulations, technologies and innovative finance; 	<ul style="list-style-type: none"> ✓ Prevent and mitigate water pollution and protect and restore water-related ecosystems, including through platforms for wastewater and management of nutrients; ✓ Increase transboundary water cooperation;

		<ul style="list-style-type: none"> ✓ Continue to work through the Global Wastewater Initiative and other UN-Water Members and the private sector to halve by 2030 the amount of untreated wastewater reaching waterbodies;
UNE3 Biodiversity	<ul style="list-style-type: none"> ✓ Promote close coordination, collaboration and synergies related to mainstreaming biodiversity; 	
UNE3 Innovative solutions	<ul style="list-style-type: none"> ✓ Facilitate the strengthening of international cooperation by supporting countries in the promotion of innovative environmental solutions; 	<ul style="list-style-type: none"> ✓ Develop and strengthen partnerships to promote and enhance investment in innovative environmental solutions;
UNE2 Chemicals and waste	<ul style="list-style-type: none"> ✓ work with the Director-General of WHO to enhance that organization's engagement with the emerging issue of environmentally persistent pharmaceutical pollutants 	<ul style="list-style-type: none"> ✓ UN Environment to cooperate with Governments, with the private sector, including industry, and with other non-governmental organizations to continue work on lead and cadmium ✓ support the Global Partnership on Waste Management and take the lead in partnerships in core areas of environmentally sound management of waste;
UNE2 Sustainable consumption and production	<ul style="list-style-type: none"> ✓ Continue and strengthen work to facilitate coordinated efforts, including by providing support, analyses and data; ✓ Strengthening multi-stakeholder partnerships within and between the thematic programmes of the 10YFP, including through strategic linkages with other global initiatives; ✓ Initiate and strengthen multi-stakeholder partnerships to facilitate sharing and implementation of best practices; ✓ Explore opportunities to strengthen cooperation in promoting sustainable urban development at the city level; ✓ Strengthen multi-stakeholder cooperation to advance good practices; ✓ Broadening the funding resources for the implementation of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns; 	<ul style="list-style-type: none"> ✓ Invite companies to adopt sustainable practices and continue enhancing the reporting of sustainability information; ✓ Engage both public- and private-sector interests to collaborate to initiate partnerships and alliances to find innovative ways of achieving resource-efficient societies; ✓ Mobilize voluntary contributions to support the Trust Fund of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns;
UNE2 Prevention, reduction and reuse of food waste	<ul style="list-style-type: none"> ✓ Support the development of multi-stakeholder initiatives that focus on food waste reduction and prevention along the whole food value chain (with FAO); ✓ Support the development of multi-stakeholder initiatives that focus on food waste reduction and prevention along the whole food value chain (with FAO); ✓ Enhance cooperation to support communities of practice focusing on food loss and waste reduction (with FAO); ✓ Continue to participate in ongoing international initiatives to improve the measurement of food loss and waste (with FAO); 	<ul style="list-style-type: none"> ✓ Engage in international cooperation to reduce and/or eradicate food loss resulting from contamination at the production stage by sharing technical knowledge and good practices;
UNE2 Marine plastics and microplastics	<ul style="list-style-type: none"> ✓ Coordinate work in the framework of the Global Partnership on Marine Litter (Convention on Biological Diversity, the International Whaling Commission, the Convention on the Conservation of Migratory Species of Wild Animals, Convention for the Protection of the Natural Resources and Environment of the South Pacific Region); 	<ul style="list-style-type: none"> ✓ Encourage international cooperation on transboundary watercourses; ✓ Further develop partnerships with industry and civil society and establish public-private partnerships to raise awareness, promote behavioural change, and cooperate in the prevention and clean-up of marine plastic debris;
UNE2 Chemicals and waste	<ul style="list-style-type: none"> ✓ facilitate cooperation between the interim secretariat of the Minamata Convention, the secretariats of the Basel, Rotterdam and Stockholm conventions and others to assist countries in joining the Convention ✓ WHO to assume a leading role in the Strategic Approach to International Chemicals Management and to provide appropriate staff and other resources to its secretariat ✓ consider ways to support the Strategic Approach secretariat, including possible staffing support; ✓ consider opportunities for cooperation with the regional centres of the Basel and Stockholm conventions in implementing the regional sound management of chemicals and waste projects; 	<ul style="list-style-type: none"> ✓ mobilize financial resources for the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the Minamata Convention and the Strategic Approach to International Chemicals Management ✓ consider ways to improve the involvement and participation of all relevant stakeholders to address new challenges ✓ make financial and in-kind contributions to the Strategic Approach to International Chemicals Management; ✓ consider ways to promote an effective and efficient network of regional centres of the Basel and Stockholm conventions
UNE1 Marine plastics and microplastics		<ul style="list-style-type: none"> ✓ Cooperate with the Global Partnership on Marine Litter in its implementation of the Honolulu Strategy and facilitate information exchange through the online marine litter network;
UNE1 Air quality	<ul style="list-style-type: none"> ✓ explore opportunities for strengthened cooperation on air pollution within the UN system 	

Annex 3: Sustainable Development Goals and the pollution, environment and health nexus

CHEMICALS AND WASTE	AIR	WATER	SOIL	MARINE AND COASTAL
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination				
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment				
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead				
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all				
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities				
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle				
12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities				
11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management		14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution		
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix 7.3 By 2030, double the global rate of improvement in energy efficiency 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements		14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information
		6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes 6.b By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	

Annex 4: Key multilateral agreements – BRS, Minamata and the Montreal Protocol - and actions on key challenges to address pollution

Key multilateral agreements (Basel, Rotterdam and Stockholm Conventions, Minamata Convention and the Montreal Protocol) and the actions taken to address the five challenges referred to in the Implementation Plan in relation to pollution.

CONVENTIONS	KNOWLEDGE - SCIENCE AND DATA FOR EVIDENCE-BASED POLICY	IMPLEMENTATION - CAPACITY, INCENTIVES AND INTEGRATED POLICIES	INFRASTRUCTURE - TECHNOLOGIES, INNOVATION, CIRCULARITY	AWARENESS-COMMUNICATION, EDUCATION AND CONSUMER INFORMATION	LEADERSHIP- MOBILIZING LEADERS AND PARTNERS
<p>Basel Rotterdam and Stockholm Conventions</p>	<p><i>The Basel, Rotterdam and Stockholm Conventions are science-based, legally binding global treaties aimed at the protection of human health and the environment from hazardous chemicals and wastes. Policy decisions taken by their governing bodies, the Conferences of the Parties (COPs), are underpinned by various scientific assessments.</i></p> <p><i>Examples of assessment products from BRS conventions:</i></p> <ul style="list-style-type: none"> - Technical guidelines on environmentally sound management (ESM) of wastes streams and disposal operations, and other manuals, tools on ESM developed by expert groups under the Basel Convention; - Decision guidance documents prepared by the Chemical Review Committee to consider listing new chemicals under the Rotterdam Convention; - Risk profiles and risk management evaluations prepared by the POPs (persistent organic pollutants) Review Committee to consider listing new chemicals under the Stockholm Convention; <p><i>Other relevant initiatives:</i></p> <ul style="list-style-type: none"> - The Science-Policy road map under the BRS Conventions, for further engaging Parties and other stakeholders in an informed dialogue for enhanced science-based action in the implementation of the Conventions; - The clearing-house mechanism that facilitates the exchange of information and expertise relevant for the Conventions. This is a global knowledge base platform providing scientific information; regulatory information; capacity building information; and information on the status of implementation of the Conventions (country profiles, chemical assessments, expert roster, alternative chemicals, library of national legislation and plans). 	<ul style="list-style-type: none"> - The Conventions provide toolboxes for the environmentally sound management of chemicals and wastes, including for risk and impact assessments and for promoting economic incentives (ESM toolbox, e.g. on producer extended responsibility, technical guidelines, other manuals and guidance under the Basel Convention; Best Available Techniques (BAT) and Best Environmental Practices (BEP), risk management evaluation on candidate POPs under the Stockholm Convention); - Need for capacity-building and institutional strengthening are set out in the provisions of the Conventions. Capacity-building is provided by Parties, regional centres established under the Basel and Stockholm Conventions, Secretariat and intergovernmental organizations (IGOs), e.g., the Global Environment Facility (GEF) implementing agencies in the case of the Stockholm Convention. Capacity-building provided under the Conventions target pollution areas, as described in the Technical Assistance plan for the implementation of the Conventions for 2018-2021. Adjustments to the TA plan to be suggested to 2019 COPs are, among other things, to include marine plastic litter. Cross sectoral approach promoted in delivering TA activities, particularly with health and agriculture sectors. - The Conventions support countries in their efforts to develop legislative and regulatory frameworks through their legally binding provisions. - The Conventions offer financing support to countries through established funding mechanisms, e.g. the GEF in the case of the Stockholm Convention, or the special programme on institutional strengthening for all three Conventions (also cover Minamata Convention and Strategic Approach to 	<p><i>Several partnerships under the Basel Convention aim at exchanging knowledge and information on clean technologies and lessons learned/case studies on infrastructures and for engaging the private sector in deploying innovative solutions (Household Waste Partnership and Partnership for Action on Computing Equipment (PACE)). The 11th meeting of Open-ended Working Group of the Basel Convention, held in September 2018, recommended to the 2019 Basel Convention COP to establish a new partnership on plastic wastes in the view of address marine plastic litter.</i></p> <p><i>This can facilitate the choices of, and access to appropriate, publicly available technologies.</i></p>	<p><i>The Conventions disclose information on pollution related to the waste and chemicals covered under those agreements.</i></p> <ul style="list-style-type: none"> - As part of the effectiveness evaluation of the Stockholm Convention, a global monitoring programme on POPs provides monitoring data on the presence of POPs from all regions, in order to identify changes in their concentrations over time, as well as on regional and global environmental transport - Information on chemicals in products for chemicals listed under the Rotterdam and Stockholm Conventions are available through the scientific committees' assessments. - National reports under the Basel and Stockholm Conventions provide information and data on the measures taken by a Party in implementing the Conventions, including data of POPs produced/ released and wastes generated under the Basel Convention. - The Basel Convention has developed a manual on extended producer responsibility schemes to collect, treat and safely manage/recycle waste from production and consumption. - Various outreach campaigns have been conducted under the Conventions, including the ongoing #detox campaign. The theme of its 2019 Conferences of the Parties is: "Clean Planet, Healthy People: Sound Management of Chemicals and Wastes". The Conventions support industry and businesses to reduce their emissions, by providing level playing field within and across countries, through their control measures, guidelines and BAT and BEP. <p><i>Under the Basel Convention, technical guidelines provide for the foundation upon which countries can operate at a standard that is not less environmentally sound than that required by the</i></p>	<p><i>The Conventions support industry and businesses to reduce their emissions, by providing a level playing field within and across countries, through their control measures, guidelines and BAT and BEP.</i></p> <p><i>Under the Basel Convention, technical guidelines provide for the foundation upon which countries can operate at a standard that is not less environmentally sound than that required by the Convention. These guidelines are developed for a variety of waste streams and disposal operations and are intended to assist Parties, in particular developing countries, in improving their waste management practices. All the technical guidelines developed and adopted under the Basel Convention are available on the website.</i></p> <p><i>Under the Stockholm Convention, BAT and BEP guidelines are developed for intentionally produced POPs and unintentionally produced POPs.</i></p> <p><i>Conferences of the Parties, and their high-level segment, offer a platform to mobilize countries and their decision makers against pollution, e.g. ministers of environment, health and agriculture.</i></p>

CONVENTIONS	KNOWLEDGE - SCIENCE AND DATA FOR EVIDENCE-BASED POLICY	IMPLEMENTATION - CAPACITY, INCENTIVES AND INTEGRATED POLICIES	INFRASTRUCTURE - TECHNOLOGIES, INNOVATION, CIRCULARITY	AWARENESS-COMMUNICATION, EDUCATION AND CONSUMER INFORMATION	LEADERSHIP- MOBILIZING LEADERS AND PARTNERS
		<p><i>International Chemicals Management SAICM).</i></p>		<p><i>Convention. These guidelines are developed for a variety of waste streams and disposal operations and are intended to assist Parties, developing countries, in improving their waste management practices. All the technical guidelines developed and adopted under the Basel Convention are available on the website.</i></p> <p><i>Under the Stockholm Convention, BAT and BEP guidelines are developed for intentionally produced POPs and unintentionally produced POPs.</i></p> <p><i>Conferences of the Parties, and their high-level segment, offer a platform to mobilize countries and their decision makers against pollution, e.g. ministers of environment, health and agriculture.</i></p>	
<p>Minamata Convention: Mercury wastes</p>	<p><i>The Minamata Convention on Mercury is a multilateral environmental agreement that addresses specific human activities which are contributing to widespread mercury pollution. Implementation of this agreement will help reduce global mercury pollution over the coming decades.</i></p>	<ul style="list-style-type: none"> - Reduce and where feasible eliminate the use and release of mercury from artisanal and small-scale gold mining (ASGM). - Control mercury air emissions from coal-fired power plants, coal-fired industrial boilers, certain non-ferrous metals production operations, waste incineration and cement production. - Phase-out or take measures to reduce mercury use in certain products such as batteries, switches, lights, cosmetics, pesticides and measuring devices, and create initiatives to reduce the use of mercury in dental amalgam 	<p><i>The Convention requires partnerships with industries and private entities to reduce the process of mercury use in chlor-alkali production</i></p> <ul style="list-style-type: none"> - Mercury use in the manufacture of Polyvinyl Chloride PVC and polyurethane significantly reduced - The use of mercury in artisanal and small-scale gold mining reduced, and, where feasible, eliminated 	<p><i>The Convention includes provisions for technical assistance, information exchange, public awareness, and research and monitoring. It also requires Parties to report on measures taken to implement certain provisions. The Convention will be periodically evaluated to assess its effectiveness at meeting its objective of protecting human health and the environment from mercury pollution. phase out products in the following:</i></p> <ul style="list-style-type: none"> - Batteries - Most switches and relays - Skin-lightening soaps and creams - Pesticides and biocides (including biocides in paints, but not vaccines), and topical antiseptics - Measuring devices (barometers, hygrometers, manometers, thermometers, and blood pressure cuffs) - Mercury content of most fluorescent lamps (must be below specified levels) 	
<p>Montreal Protocol</p>	<p><i>The Montreal Protocol requires the review of the state of the ozone layer and the underlying science, the environmental effects of ozone layer depletion and identification of alternatives and their economics and adoption.</i></p> <p><i>The review is carried out every 4 years by the three Assessment Panels (the Technology and Economic Assessment Panel (TEAP, with 5 Technical Options Committees), Scientific Assessment Panel, and the Environmental Effects Assessment Panel) established under the Montreal Protocol. The Assessment Panels also provide annual progress reports for bringing to the</i></p>	<p><i>The financial mechanism of the Montreal Protocol, including the Multilateral Fund, provides financial and technical support to Article 5 countries (developing countries) through the four implementing agencies (i.e. UN Environment, United Nations Develop Programme(UNDP), United Nations Industrial Development Organization (UNIDO), and the World Bank) to implement projects and activities to enable those countries to comply with the Protocol's obligations.</i></p> <p><i>Projects and activities include preparation of country's management plans for phasing out/down controlled substances, industry</i></p>	<p><i>Under the Multilateral Fund and the GEF, which finance projects in Article 5 parties and CEITs, projects to phase out/down controlled substances include innovative and greener solutions in converting industries and technologies from using controlled substances to alternatives.</i></p> <p><i>During the phase-out of ozone depleting substances (ODSs), the redesign and remanufacture of equipment that use ODSs to alternatives have resulted in improved functionality, operations and efficiency of the equipment (e.g. in refrigeration and air-conditioning). With the entry into force of the Kigali Amendment, energy efficiency</i></p>	<p><i>The Ozone Secretariat carries out global communication campaigns on a yearly basis, with a focus on International Ozone Day celebrated around the world on 16 September. In conjunction with decennial anniversaries of the Vienna Convention and the Montreal Protocol, special campaigns are organized, and awards are presented to champions in ozone layer protection.</i></p> <p><i>Awareness raising activities are also incorporated in the institutional strengthening and enabling activities of Article 5 parties supported under the Multilateral Fund. National level policies and activities also address various educational activities, training, information</i></p>	<p><i>Strong and successful partnerships among stakeholders including governments, industries, academia (scientists/experts/ researchers) at all levels (international, regional and national) ensured the successful implementation of the Montreal Protocol.</i></p>

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	<p><i>parties' attention any emerging issues.</i></p> <p><i>Additional tasks are requested of the Panels, especially the TEAP, to assess and recommend on specific technical issues.</i></p> <p><i>The work of the Panels forms an important basis for informed decision making by the parties, including on the strengthening of the Protocol and its provisions.</i></p> <p><i>Under the Vienna Convention for the Protection of the Ozone Layer, the Ozone Research Managers forum meets every 3 years to review international and national programmes on ozone research and observation to identify gaps and recommend ways to address them.</i></p>	<p><i>conversion projects, institutional strengthening and enabling activities.</i></p> <p><i>Projects in countries with economies in transition (CEITs) are supported through the Global Environment Facility (GEF).</i></p>	<p><i>and safety issues while phasing down Hydrofluorocarbons(HFCs) will be considered.</i></p>	<p><i>dissemination to consumers, product labelling, etc., some of which are also incorporated into the projects funded by the Multilateral Fund.</i></p>	