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Discussion Document for Agenda Item 8 (a) Theme: “Towards a pollution-free planet”
Regional input to outcomes of the third session of the United Nations Environment Assembly (2017)

Towards a pollution-free planet

Discussion Document -- Not for quotation or citation. The purpose of this document is to facilitate discussions during the Second Forum of Ministers and Environment Authorities of Asia Pacific, 5 – 8 September 2017, Bangkok. Comments are welcome and should be sent to uneproap@un.org.

I. Introduction

1. Our economic and industrial history has been one of spectacular scientific and technological breakthroughs that have delivered economic successes and multiple social benefits. However, these benefits have been accompanied by increasing levels of pollution and costs to human health and productivity, ecosystems and the economy. **Towards a Pollution-Free Planet** is the theme of the 2017 UN Environment Assembly. UN Environment is preparing a report that will provide evidence of a polluted planet; describe how acting on pollution helps achieve the sustainable development goals; and discuss a framework for a global agenda to address pollution. The advance version of the report "Towards a Pollution-Free Planet" by the Executive Director of the UN Environment Programme has been circulated to Member States and stakeholders (available at <http://www.unep.org/environmentassembly/report-executive-director-towards-pollution-free-planet>) to provide comments and suggestions and is meant to support the preparations for the third session of the UN Environment Assembly. This executive summary of the report will facilitate discussion and regional inputs, including priorities and action plans, on the theme of achieving a pollution free planet.

II. Executive Summary

2. Pollution today is pervasive and persistent. While the world has achieved impressive economic growth over the past few decades, this progress has been accompanied by increased pollution. As populations grow and more people escape poverty and aspire to improved consumption, the linear economic model of "take-make-dispose" is burdening an already polluted planet.

3. Pollution is clearly not a new phenomenon, and is largely controllable and often avoidable. Many stories exist of countries, cities, and businesses that have addressed serious air, soil, freshwater and marine pollution issues. Adequate knowledge and technological solutions exist to both treat, control and avoid pollution. Encouragingly, more and more governments, industries and citizens are moving towards sustainable materials and circular economy, with greater resource efficiency, sustainable chemistry and clean technologies, as part of a transition towards a green economy. Differences in capacity and development to tackle pollution adequately worldwide, however, are still huge. As the number of success stories of preventing, reducing and better managing pollution increase, identifying systemic approaches, steps and interventions to transition towards a pollution-free planet is achievable.

4. "Towards a pollution-free planet" is an aspirational goal, seeking actions to eliminate anthropogenic pollution that degrades ecosystems, harms human health and well-being, and impacts the functioning of all living species. Achieving the 2030 Agenda for Sustainable Development, including its numerous pollution-reducing targets, is a crucial milestone on the path towards a pollution-free planet. Transitioning to a pollution-free world can drive innovations in the economy through seeing pollution regulation compliance as an opportunity to clean the environment, but also create new job opportunities and improve economic productivity. It would be the best insurance policy for future generations as it would improve the ecosystem integrity that they need for survival.

5. The severity of pollution is based on its chemical nature, concentration, presence and persistence. Some types of pollution are easily noticed, such as contaminated water, poor air quality, industrial waste, litter and light, heat and noise. Others are less visible, for example the presence of pesticides in food, nutrients in the sea and lakes, and endocrine disrupting

chemicals in drinking water, personal care products and cleaning solutions. Some, such as those coming from abandoned industrial and mines sites, armed conflict, nuclear power stations, and waste landfill form part of a longer-term legacy. And some others are totally intangible such as those causing the depletion of the ozone layer.

6. The sources and types of pollution are highly diverse as are the solutions for dealing with them. Pollution can have particularly disproportionate and negative impacts on the poor and the vulnerable such as children and the elderly. Consequently, it constitutes a serious impediment to achieving the objective of the 2030 Agenda for Sustainable Development of “leaving no one behind”.

7. This Report is a call for action towards a pollution-free planet for all. It looks at the evidence, current responses and gaps surrounding these issues, and the opportunity that the 2030 Agenda presents to accelerate action on tackling pollution. It suggests a framework for action for the near, medium and long term for a transition towards a pollution-free planet.

| POLLUTION | COSTS (2015 BILLION US\$) | % OF GROSS DOMESTIC PRODUCT | SOURCE |
|--|--|--|--|
| Greenhouse gas emissions | 4,987 | 6.7 | United Nations Environment Programme and Principles for Responsible Investment Association (2010). Universal Ownership: Why Environmental Externalities Matter to Institutional Investors. |
| Indoor and outdoor air pollution | 5,322 | 7.2 | Organisation for Economic Co-operation and Development (2016). The Economic Consequences of Outdoor Air Pollution. Paris: OECD Publishing. World Bank and Institute for Health Metrics and Evaluation (2016). The Cost of Air Pollution: Strengthening the Economic Case for Action. Washington, DC. |
| Chemicals (volatile organic compounds, lead, mercury) | 480 | 0.4 | United Nations Environment Programme and Principles for Responsible Investment Association (2010). Universal Ownership: Why Environmental Externalities Matter to Institutional Investors. |
| General waste | 216 | 0.3 | United Nations Environment Programme and Principles for Responsible Investment Association (2010). Universal Ownership: Why Environmental Externalities Matter to Institutional Investors. |

FIGURE 1: EXAMPLES OF IMPACTS OF POLLUTION ON HUMAN HEALTH AND WELL-BEING AND ECOSYSTEMS

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|--|--|
| <p>air pollution</p> | <p>6.5 million people die annually as a result of poor air quality including 4.3 million due to household air pollution</p> <p>Lower respiratory infections: 51 million years lost or lived with disability annually due to household or ambient air pollution</p> <p>Chronic obstructive pulmonary diseases: 32 million years life lost or lived each year with disability because of household air pollution and workers' exposure</p> |
| <p>freshwater pollution</p> | <p>58 per cent of the cases of diarrheal disease due to lack of access to clean water and sanitation</p> <p>57 million years of life lost or lived with disability annually due to poor water, sanitation, hygiene</p> |
| <p>land/soil pollution</p> | <p>Open waste dumps and burning impacts lives, health and livelihoods and affect soil chemistry and nutrition</p> <p>Health impacts of chronic exposure to pesticides for men, women and children</p> <p>Salinization of land and ground water affects health, especially of pregnant women and infants</p> |
| <p>marine and coastal pollution</p> | <p>3.5 billion people depend on oceans for source of food yet oceans are used as waste and waste water dumps</p> <p>Close to 500 'dead zones', regions that have too little oxygen to support marine organisms, including commercial species</p> <p>Plastics (75% of marine litter) transport persistent bio accumulative and toxic substances to all parts of the world</p> |
| <p>chemicals</p> | <p>Over 100,000 die annually from exposure to asbestos</p> <p>Lead in paint affects children's intelligence quotient (IQ)</p> <p>Many impacts of chemicals such as endocrine disruptors and developmental neurotoxicants and long-term exposure to pesticides on human health and well-being and biodiversity and ecosystems are still to be fully assessed</p> |
| <p>waste</p> | <p>50 biggest active dump sites affect the lives of 64 million people, including their health and loss of lives and property when collapses occur;</p> <p>2 billion people are without access to solid waste management and 3 billion lack access to controlled waste disposal facilities</p> |

8. Responses to pollution exist, but they are still too limited in scope and scale. Global and regional environmental agreements provide a framework for time bound actions, while some also include compliance-related actions, monitoring and reporting. Most countries have

adopted national policy and legal frameworks to respond to these agreements but also to address some of the other pollution issues. Voluntary initiatives and global alliances, such as in the case of fuel efficiency improvements and cleaner air, have helped to push forward improved and faster actions. Some have also underlined the multiple benefits to improved health, productivity, and ecosystems, and achieving the Sustainable Development Goals. While many businesses have responded to global frameworks and risen to the challenges, much more needs to be done.

9. Challenges and gaps limit the effectiveness of actions. These centre on availability of data and information, existing infrastructure, institutional and technical capacity, business and industry leadership, mispricing and invisibility of ecosystem values, and consumer behaviours. Strengthened environmental governance in relation to pollution requires greater multi-level and multi-actor coordination, policy innovation, coherence and integration. However, the nature of pollution suggests that responses need to go beyond governance, and tackle head-on the choices we make about how we produce and consume.

10. A significant opportunity to achieve an accelerated outcome exists within the 2030 Agenda for Sustainable Development. The 2030 Agenda provides an opportunity to both accelerate pollution action, but also through actions on pollution to achieve other Sustainable Development Goals. One target in particular stands out: Target 3.9 (under Goal 3 on health and well-being) commits to “substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination”. Global actions towards this goal have to be: targeted and systemic; preventive and curative; near and longer term; innovative and forward-looking. The actions will need champions from policymaking, non-governmental organizations, research communities, individuals and business. It will also require interministerial coordination, integration across sectors and multi-governmental levels, as well as engagement from all parts of society.

11. The framework proposed comprises principles, targeted interventions to address the hard-hitting pollutants through multilateral as well as national actions to address pollution risks, plus a range of system-wide transformations and enablers associated with a move towards a greener, circular, more resource efficient economy.

12. The five principles which underpin the framework are universality, sustainability, integration, precaution and inclusiveness. Irrespective of the voluntary commitments and confirmed actions stakeholders may take, and the urgency and ambition with which they choose to take them, the five normative principles imply that all interventions for action on pollution should consider that:

- (i) Everyone in society is responsible for moving towards a pollution-free planet;
- (ii) Access to environmental information and data, education and public participation are key to effective actions and enhanced access to justice in environmental matters;
- (iii) Multiple risks to human health and well-being, especially to women, children and vulnerable groups, and to ecosystem health require a preventive approach;
- (iv) Innovation and leadership are central to tackling pollution in an effective and impactful manner;

- (v) Multiple benefits of action on pollution need to be recognized, policy uncertainty reduced, and innovation placed at the centre. This will require a ‘whole-of-government’ approach.

13. The principles apply to a dual track of actions:

- (i) **Targeted interventions** to address on a priority basis the hard-hitting pollutants and focus national action on the five key pollution areas: air pollution, land and soil pollution, freshwater pollution, marine and coastal pollution, and chemicals and waste;
- (ii) **System-wide actions** for the medium and longer term to shift the economy to greener, more circular, and cleaner development paths.

14. Possible near term interventions to address priority areas at a multilateral level have been identified where:

- (i) International risk reduction actions are already agreed, mainly through multilateral environmental agreements, but implementation needs to be scaled up;
- (ii) Scientific evidence and or global agreement exists to reduce risks, but policy actions are required;
- (iii) Emerging scientific evidence concerning human health and the environment warrants a greater understanding of the nature and magnitude of risks.

15. Interventions to target specific forms of pollution are highlighted for immediate national actions where commitments from different stakeholders are needed to fast track pollution prevention and reduction:

A. Air pollution

- (i) Adopt the World Health Organization air quality guidelines, including those for indoor air quality, as a minimum for their national standards and invest in strong air quality monitoring systems;
- (ii) Meet World Health Organization air quality guidelines, through the reduction of emissions from major industrial sources including particulate matter, sulphates, nitrogen oxides, persistent organic pollutants and heavy metals;
- (iii) Reduce global vehicle emissions by at least 90 per cent through the introduction of advanced vehicle emissions standards (e.g. at least Euro 4 level) in 5 years and a move to only electric vehicles being added to fleets by 2030;
- (iv) Offer effective and affordable public transport and non-motorized transport infrastructure in all cities above 500,000 inhabitants by 2030;
- (v) Increase the share of non-polluting renewable energy sources such as solar, wind, and tidal to 36 per cent by 2030, while addressing production and waste stages related to for example solar panels (notably batteries);
- (vi) Increase access of households to clean cooking fuels and technologies;

- (vii) Protect and restore ecosystems to avoid air pollution in drylands, rangelands and other areas prone to erosion, fire, desiccation and other forms of degradation;
- (viii) Expand green spaces in urban areas to improve ambient air quality in cities.

B. Water pollution

- (i) Provide clean drinking water and sanitation for improved health by 2030;
- (ii) Avoid direct disposal of untreated wastewater into the environment and reduce the amount of untreated wastewater that is discharged into freshwater bodies by at least 50 per cent by 2030, through improved wastewater treatment, increased access to safely managed sanitation and improved land management practices;
- (iii) Establish adequate water quality monitoring networks, including for tracking municipal and industrial effluents, in all significant freshwater bodies;
- (iv) Protect and restore wetlands and other natural systems contributing to water purification.

C. Land and soil pollution

- (i) Optimize fertilizer use in agriculture and enhance nutrient management and plant uptake efficiency to reduce excess nutrient run-off and water contamination;
- (ii) Increase the use of non-chemical alternatives to fertilizers and pesticides and adoption of agroecological practices;
- (iii) Control the use of antimicrobials in the livestock sector to avoid releases into the environment;
- (iv) Support the improvements in pollutant inventory systems, especially for mining, and make sustainability reporting mandatory;
- (v) Provide funding for long-term environmental monitoring after a mining project is closed, to ensure that rehabilitation is effective.

D. Marine and coastal pollution

- (i) Phase out single-use plastics and modify manufacturing in order to reduce packaging and phase out non-recoverable plastic materials;
- (ii) Stop the production and use of plastic in non-recoverable items, such as microbeads in personal care products and cosmetics.

E. Chemicals and waste

- (i) Identify and characterize pollution / chemicals-related hotspots (such as obsolete stockpiles of chemicals, contaminated sites) to protect vulnerable groups and the environment, minimize exposure and take measures to decontaminate them and prevent new ones;

- (ii) Reduce and mitigate risks associated with extractive activities, including controlling the use and release of chemicals in mining, such as mercury in artisanal and small scale gold mining;
- (iii) Effectively provide and apply reliable information along the product life cycle, including at the consumer stage, in particular on the presence of harmful chemicals in manufactured products and raise consumer awareness of hazards and risks throughout the value chain;
- (iv) Develop eco-labelling schemes to inform customers on the potential environmental and health impact of their consumer choices;
- (v) Extend product lifespans through sustainable design, maintenance and upgrades, and recovery of broken products;
- (vi) Reduce exposure to lead through actions on battery recycling, pottery, and paint;
- (vii) Phase out the use of mercury in a number of specific products by 2020 and manufacturing processes by 2025, and phase down in dental amalgam and in mining;
- (viii) Minimize waste generation, improve collection, separation and final disposal practices and regulation;
- (ix) Eliminate uncontrolled dumping and open-burning of waste;
- (x) Phase out the production and use of asbestos.

16. To address some of the root causes of pollution and further reduce pollution in the medium and longer term, there is a need for system-wide level action to transform the economy. Five actions are key to shifting the economy to more innovative and cleaner production and consumption patterns, and greener investments in less polluting activities and practices as well as alternatives. These include:

- (i) Building circularity in production and supply processes and key economic sectors;
- (ii) Redirecting finance and investments to less polluting and cleaner economic activities;
- (iii) Promoting and disseminating green technologies and ecosystem based solutions, including ecosystem protection and restoration;
- (iv) Scaling up actions on pollution through horizontal and vertical integration in cities
- (v) Incentivizing responsible consumption and lifestyles choices.

17. Underpinning change and system-wide action with enablers: clear targets, science-based standards and monitoring programmes can play a central role in facilitating transformative actions and progressing a prevention-focused pollution agenda. They aim at incentivizing and correcting market and policy failures and address some of the key gaps and issues identified in the document that make pollution so globally present, pervasive and persistent. Key enablers include:

- (i) Facilitating evidence-based decision-making;
- (ii) Enhancing the effectiveness of pollution-related governance;

- (iii) Applying economic instruments to shift consumer and producer behaviours towards cleaner paths;
- (iv) Investing in education for change;
- (v) Strengthening cooperation and partnerships on knowledge, technology, finance and investments.