Strategic Approach
to International
Chemicals Management

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**Second meeting of the intersessional process considering the Strategic Approach
and the sound management of chemicals and waste beyond 2020**
Stockholm, Sweden, 13-15 March 2018
Item 4(e) of the provisional agenda*
Considerations for Beyond 2020: Governance

Review of existing governance models of potential relevance to the sound management of chemicals and waste, including science-policy interfaces

Note by the secretariat

1.   The secretariat has the honour to provide, in the annex to the present note, a document reviewing existing governance models and science-policy interfaces of potential relevance to the sound management of chemicals and wastes. The document is presented without formal editing.

2.   At the first meeting of the intersessional process considering the Strategic Approach and the sound management of chemicals and waste beyond 2020, requests were made for the secretariat to produce the following documents, in consultation with the Bureau of the International Conference on Chemicals Management:

   a. Review of existing governance models of relevance to the sound management of chemicals and wastes;
   b. Review of the science-policy interfaces in other clusters such as climate change, biodiversity and other relevant areas.

3.   At the third meeting of the Bureau of the International Conference on Chemicals Management, it was agreed that the secretariat would prepare one report for the second intersessional meeting that responds to both of the above noted requests.

4.   Stakeholders may wish to reflect on the information as presented by the secretariat.

*SAICM/IP.2/1

Annex

Review of existing governance models of potential relevance to the sound management of chemicals and waste, including science-policy interfaces

Prepared for the intersessional process considering the Strategic Approach and the sound management of chemicals and waste beyond 2020

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1. INTRODUCTION

The fourth International Conference on Chemicals Management (ICCM) adopted resolution IV/4 to initiate an intersessional process to prepare recommendations regarding the Strategic Approach to International Chemicals Management (the Strategic Approach) and the sound management of chemicals and waste beyond 2020 for the fifth session of the Conference in 2020.

At the third meeting of the ICCM5 Bureau, it was agreed that the secretariat would prepare a report that responds to the following two requests made at the first intersessional meeting:

- Review of existing governance models of relevance to the sound management of chemicals and wastes;
- Review of the science-policy interfaces in other clusters such as climate change, biodiversity and other relevant areas.

2. GENERAL OVERVIEW OF GOVERNING STRUCTURES IN THE CHEMICALS AND WASTE SECTOR

Since its adoption in 2006, the Strategic Approach[1] has created a pro-active, inclusive and overarching platform for engagement and commitment of governments, inter-governmental organizations (IGOs), non-governmental organizations (NGOs) and industry for the sound management of chemicals and waste. It is not legally binding, but its 2020 goal was proposed by heads of State at the world summit on sustainable development in 2002 and it was adopted with the ministerial Dubai Declaration in 2006. The Strategic Approach's global approach covers all agricultural and industrial chemicals throughout their life cycle and reflects environmental, economic, social, health and labour aspects of chemical safety.

On the policy and legislative sides of chemicals management, some chemicals and wastes are the subject of legally binding obligations under global multilateral environmental agreements, including: hazardous waste and disposal (the Basel Convention); persistent organic pollutants or POPs (the Stockholm Convention); certain hazardous chemicals and pesticides in international trade (the Rotterdam Convention); mercury (the Minamata Convention); and ozone depleting substances (the Montreal Protocol). Some other bodies, such as the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), address substances that do not fall directly under those conventions.

This section provides context related to the above noted governing structures.

2.1 The Basel, Rotterdam and Stockholm Conventions

2.1.1 The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted in 1989 and entered into force in 1992. The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as hazardous wastes based on their origin and/or composition and their characteristics, as well as two types of wastes defined as other wastes - household waste and incinerator ash.

This international treaty was designed to reduce the movement of hazardous substances between nations. More specifically, it was created in response to the prevalent transboundary dumping of hazardous wastes from developed to developing nations.[2]

The Basel Convention defines and characterizes hazardous (annex I) and non-hazardous wastes (annex II) according to specific characteristics. Under the Convention, each party must inform the secretariat of the Convention of the wastes considered or defined as hazardous under its national legislation.

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[1] As background reference, an analysis of the Strategic Approach governance structure is included in Appendix.

[2] https://sustainabledevelopment.un.org/content/dsd/csd/csd_pdfs/csd-19/learningcentre/presentations/May%206%20pm/03%20a%20StanleyJones%20The%20Basel%20Rotterdam%20and%20Stockholm%20Conventions_20April11_rev%20final.pdf.

Furthermore, mindful of the potential risks posed by 'toxic dumping' and the inability of developing countries to prevent this, the Convention's principal focus is to establish a control system for the transboundary movement of hazardous wastes. The Convention requires parties to ensure:

- That the generation of hazardous wastes and other wastes within it, is reduced to a minimum
- The availability of adequate disposal facilities within their own territory

To strengthen efforts enhancing the management of chemicals. In order to realise this, a number of guidelines were produced to ensure the sound management of chemicals and waste.

Parties to the Basel Convention are required to transmit national reports to the Conference of the Parties (COP), through the secretariat, pursuant to **article 13**, paragraph 3, on an annual basis. Out of the 186 parties to the Basel Convention,[3] 87 have submitted their national report for the year 2015[4] (47 % of parties).

Article 15 of the Convention establishes a COP which shall keep under continuous review and evaluation the effective implementation of the Convention. It is the governing body of the Basel Convention and is composed of governments of countries that have accepted, ratified or acceded to it. The implementation of the Convention is advanced through the decisions it takes at its meetings. Ordinary meetings of the Conferences of the Parties are usually held every other year.[5]

2.1.2 The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted in 1998 and entered into force in 2003. The objective of this Convention is to promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to parties. It was created in response to the dramatic growth in chemicals production and trade which has raised both public and social concerns about the potential risks posed by hazardous chemicals and pesticides, that is to say banned or severely restricted chemicals and severely hazardous pesticide formulations.

In order to prevent the import of unwanted hazardous chemicals between parties, the Rotterdam Convention establishes the prior informed consent procedure which gives the importing parties powers to take an informed decision on possible future imports of chemicals. This not only gives power to importing parties, but it also prevents the occurrence of stockpiles of unwanted chemicals on the shorelines of developing nations. The procedure to make a hazardous chemical or pesticide listed in annex III to the Convention, and thus subject to the prior informed consent procedure, is different for hazardous chemicals and for pesticides.

Under article 15 of the Convention, each party must take necessary measures to establish and strengthen its national infrastructures and institutions for the effective implementation of the Convention. No reporting mechanism is put into place for the Rotterdam Convention. However, under several articles of the Convention (articles 4, 5, 6, 7, 10, 11, 13 and 14), parties are required to circulate information to other parties.[6] This information is published by the secretariat and made available to all parties every six months through the procedure inform consent circular.

Article 18 of the Convention establishes a Conference of the Parties (COP) which shall keep under continuous review and evaluation the implementation of the Convention. Meetings of the Conferences of the Parties are usually held every two years.[7]

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[3] http://www.basel.int/Countries/StatusofRatifications/PartiesSignatories/tabid/4499/Default.aspx.
[4] http://www.basel.int/Countries/NationalReporting/NationalReports/BC2015Reports/tabid/5384/Default.aspx
[5] http://www.basel.int/TheConvention/ConferenceoftheParties/OverviewandMandate/tabid/1316/Default.aspx.
[6] http://sdg.iisd.org/news/rotterdam-convention-releases-pic-circular-2/.
[7] http://www.pic.int/TheConvention/ConferenceoftheParties/OverviewandMandate/tabid/1049/language/en-US/Default.aspx.

*2.1.3   **The Stockholm Convention on Persistent Organic Pollutants*** was adopted in 2001 and came into force in 2004. Mindful of the precautionary approach as set forth in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Convention is to protect human health and the environment from persistent organic pollutants. The impetus for this agreement was the threat that persistent organic pollutants (POPs) posed to human health and the environment. Owing to the high toxicity of POPs, their persistence and bioaccumulation and their ability to cross international boundaries, the Convention's core focus is to eliminate or restrict the production and use of POPs.

Accordingly, some obligations are placed on parties to ensure the sound management of these POPs, such as taking measures to reduce or eliminate releases from:

- intentional production and use of POPs;
- unintentional production of POPs;
- Stockpiles and waste.

Parties to the Stockholm Convention are required to prepare a national implementation plan explaining how they are going to implement the obligations under the Convention and make efforts to put such a plan into operation (article 7). The national implementation plan is a dynamic document which is to be reviewed periodically, to reflect any changes, such as progress made in achieving planned objectives, as well as updated to address new obligations under the Convention. The review and updating of the national implementation plan can be challenging for parties that lack adequate resources and technical capacity, especially for new POPs.

Parties have expressed the need for assistance in particular in obtaining information on the presence of new POPs that are contained in products or widely used for industrial purposes. Relevant to this report, parties to the Stockholm Convention have completed forms on obstacles which they face in submitting their national reports.[8] For this purpose, capacity building activities are organized on a regular basis, either through face-to-face workshops or online webinars.

Under **article 15** of the Convention, the Conference of the Parties (COP) decides of the periodicity and the format of national reporting. The COP adopted decision SC-1/22, according to which the periodicity of national reporting is every four years. Regarding the third reporting due 31 August 2014, 92 parties had reported[9] out of the 181 parties[10] (51 % of parties).

Article 19 of the Convention establishes a COP which shall keep under continuous review and evaluation the implementation of the Convention. Meetings of the COP are usually held every two years.[11]

2.2   The Minamata Convention on mercury

The Minamata Convention on mercury was adopted in 2013 and entered into force in 2017. Its main objective is to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds.

In order to achieve the objective, the Convention sets out a number of obligations which bind parties to the Convention. It takes a life cycle approach, dealing with mercury sources and trade, mercury-added products, manufacturing processes in which mercury or mercury compounds are used, emissions to the air, releases to water and land, the environmentally sound interim storage of mercury other than waste mercury, mercury waste and contaminated sites. It deals specifically with artisanal and small scale gold mining, as it is estimated to be the main source of mercury emissions.[12]

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[8] http://chm.pops.int/Countries/NationalReports/tabid/751/Default.aspx.

[9] http://chm.pops.int/Countries/NationalReports/ThirdRoundPartyReports/tabid/4470/Default.aspx.

[10] http://chm.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx.

[11] http://chm.pops.int/TheConvention/ConferenceoftheParties/OverviewandMandate/tabid/578/Default.aspx

[12] Emissions are necessarily to air ('releases' is the term used for water and land).

Under **article 21** of the Convention, each party must report to the Conference of the Parties (COP) on the measures it has taken to implement the provisions of the Convention and on the effectiveness of such measures and the possible challenges in meeting the objectives of the Convention. National action plans (article 7) for artisanal and small-scale gold mining are required if a party determines that artisanal and small-scale gold mining and processing in its territory is more than insignificant. Implementation plans (article 20) are developed and executed on a voluntary basis. During the first meeting of the COP, the COP discussed the timing and format of reporting by the parties and decided in decision MC 1/8 the overall periodicity of 4 years, with certain key issues relating to trade in mercury and handling of mercury waste to be reported on every 2 years.

Article 23 of the Convention establishes a COP which shall keep under continuous review and evaluation the implementation of the Convention. Under the newly adopted rules of procedure, the second and third ordinary meetings of the COP shall be held yearly and, thereafter, ordinary meetings shall be held every two years.

2.3   The Montreal Protocol on ozone depletion

The Montreal Protocol on substances that deplete the ozone layer is a Protocol of the Vienna Convention which was adopted in 1987 and entered into force in 1989. Its objective, as the Vienna Convention, is to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

Under the Protocol, each party shall ensure that after the date of entry into force of the protocol, its calculated level of consumption of substances which deplete the ozone layer does not exceed specified calculated levels of consumption of specified years set out in the Protocol. The Protocol has been adjusted and amended several times to accelerate its phase out schedules, introduce additional control measures, and add other controlled substances.

Under **article 7** of the Protocol, each party shall provide the secretariat statistical data on its annual production, imports and exports of specified substances depleting the ozone layer. A handbook for the Montreal Protocol on substances that deplete the ozone layer has been developed in order to assist parties in complying with their reporting obligation. Out of the 197 parties to the Montreal Protocol, 168 had reported on hydrochlorofluorocarbons (HCFCs) for the year 2016 (85% of parties).[13]

Overall governance of the Montreal Protocol is provided through the meeting of the parties that has the responsibility, inter alia, for reviewing the implementation of the Protocol (article 11). The meetings of the parties are held in conjunction with meetings of the COP to the Vienna Convention that is every two years.[14] A Bureau, comprising a president, three vice-presidents and a rapporteur, is elected from among the representatives of the parties present at each meeting. Three advisory bodies report to the meeting of the parties, namely the scientific, environmental effects, and technology and economics assessment panels.

The assessment panels have been the pillars of the ozone protection regime since the very beginning of the implementation of the Montreal Protocol. Through provision of independent technical and scientific assessments and information, the panels have helped the parties reach informed decisions that have made the Montreal Protocol a world-recognized success.

UN Environment initiated the process of setting up the assessment panels in 1988, pursuant to article 6 of the Montreal Protocol, to assess the scientific issues of ozone depletion, environmental effects of ozone depletion, and the status of alternative substances and technologies and their economic implications.

Four panels were formally established and approved at the first meeting of the parties to the Montreal Protocol in 1989 where their first set of terms of reference were adopted. Shortly after the second meeting of the parties in 1990, the panels for technical assessment and the panel for economic assessment were merged into one panel called the technology and economic assessment panel, which together with the scientific assessment panel and the environmental effects assessment panel make up the three assessment panels active today.

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[13] http://ozone.unep.org/en/data-reporting/data-centre.
[14] http://ozone.unep.org/en/handbook-vienna-convention-protection-ozone-layer/2317.

In accordance with article 6 of the Montreal Protocol and subsequent decisions of the parties, the three panels carry out a periodic assessment at least every 4 years. The first assessment reports were published in 1989 and since then major periodic assessments have been published by all three panels in 1991, 1994, 1998, 2002, 2006 and 2010. For each periodic assessment, the key findings of the panels are synthesized into a short report. The full scientific assessment report for 2014 was published in December 2014, while the environmental effects assessment report for 2014 was published in January 2015.[15]

2.4   The Inter-Organization Programme for the Sound Management of Chemicals (IOMC)

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) was established in 1995 as an international coordinating group of intergovernmental organizations following recommendations made by the United Nations Conference on Environment and Development. The purpose of the IOMC is to promote coordination of the policies and activities pursued by its participating organizations, jointly and separately, to achieve the sound management of chemicals in relation to human health and the environment.

The IOMC works on subjects related to chemical safety, notably those elaborated in Chapter 19 of Agenda 21 and now covered by the Strategic Approach to International Chemicals Management global plan of action: [16]

- Risk reduction
- Knowledge and information
- Governance
- Capacity building and technical cooperation
- Illegal traffic

The IOMC organizations implement a large number of activities at country level to improve chemicals management. A directory of current country activities can be found at www.iomc.info. The matrix of IOMC activities in countries provides an overview of where individual IOMC organizations are working on chemicals issues in countries. The entries relate to country-specific activities and not normative or general activities applicable to many countries, such as the development of guidelines. There are two different views for the data: a view per country and a view per organisation.[17]

The IOMC organizations coordinate their activities on chemicals management through the inter-organization coordinating committee. This committee is composed of representatives of the participating organizations who meet twice a year. The IOMC comprises the Food and Agriculture Organization, International Labour Organization, United Nations Development Programme, United Nations Environment Programme, United Nations Industrial Development Organization, United Nations Institute for Training and Research, World Health Organization, World Bank and Organisation for Economic Co-operation and Development.

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[15] http://ozone.unep.org/en/assessment-panels.
[16] http://www.who.int/iomc/brochure/brochure_english.pdf.
[17] http://www.who.int/iomc/activity/poactivities/en/.

3. GENERAL OVERVIEW OF RELATED GOVERNANCE STRUCTURES FROM OTHER SECTORS

Chemical safety is dealt with in other areas, such as health by the International Health Regulations (2005), labour by the International Labour Organization's Conventions and food by the International Food Standards.

3.1 The World Health Organization (WHO) International Health Regulations

The third edition of International Health Regulations was adopted by the World Health Assembly in 2005 and entered into force in 2007 (first edition adopted in 1969). The purpose and scope of the International Health Regulations (2005) are to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.

The International Health Regulations (2005) contain a range of innovations compared to previous versions of the International Health Regulations, including State party obligations to develop certain minimum core public health capacities and obligations on States parties to notify World Health Organization (WHO) of events that may constitute a public health emergency of international concern according to defined criteria.

Under **article 54** of the International Health Regulations, State parties and the director-general of the WHO must report to the health assembly on the implementation of the Regulations as decided by the World Health Assembly.

Until 2016, this requirement has been fulfilled through annual reporting by the WHO secretariat to the World Health Assembly. Using information gathered through questionnaires, the WHO secretariat has summarized the activities carried out by countries to implement the International Health Regulations.[18] The International Health Regulations monitoring process involved assessing the implementation status of 13 core capacities, through a self-assessment questionnaire sent to States parties. As of July 2014, 35 counties had reported they had not yet put in place capacities to detect and respond to chemical events and requested an extension in order to put these into place. 66 % of all State parties responded to the monitoring questionnaire in 2016, that is to say 129 of the 196 States parties.[19]

Since 2016, the data have been collected using specific indicators. The revised monitoring and evaluation framework of WHO captures both qualitative and quantitative measures of a country's multifaceted International Health Regulations functionality though a 4-tiered approach:[20]

- State party annual reporting
- After-action reviews
- Exercises
- Joint external evaluation.

In addition to this, the International Health Regulations coordination department collaborates closely with WHO regional offices and other relevant departments and programmes to report on WHO's work in support of International Health Regulations implementation.

The World Health Assembly, which acts as the governing body of the International Health Regulations, is the decision-making body of WHO. It is attended by delegations from all WHO member States and focuses on a specific health agenda prepared by the executive board. The main functions of the World Health Assembly are to determine the policies of the organization, appoint the director-general, supervise financial policies, and

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[18] http://www.who.int/ihr/about/10things/en/.
[19] http://www.who.int/gho/ihr/en/.
[20] http://www.euro.who.int/en/health-topics/emergencies/international-health-regulations/monitoring-and-evaluation.

review and approve the proposed programme budget. The World Health Assembly is held annually in Geneva, Switzerland.[21]

3.2   The International Labour Organization (ILO) Conventions

There are four Conventions of the International Labour Organization (ILO)[22] that signal a targeted objective to protect workers from identified chemicals. There are a further eight ILO Conventions[23] that address specific job-related exposure to chemicals, such as in commerce and offices, construction, industry, mines and agriculture and/or specific hazards due to chemicals, such as radiation and cancer. Finally, there are three ILO Conventions[24] that address the institutional mechanisms and frameworks to ensure the application of all the aforementioned technical occupational safety and health Conventions.

Under **article 19** of the Constitution of the ILO, even if a State has not ratified an ILO Convention, it must report to the director-general of the ILO the position of its law and practice in regard to the matters dealt with in the Convention, showing the extent to which effect has been given, or is proposed to be given, to any of the provisions of the Convention by legislation, administrative action, collective agreement or otherwise and stating the difficulties which prevent or delay the ratification of such Convention.

All countries are thus obliged to comply with Conventions through the ILO supervisory system/mechanism:[25]

- Regular system of supervision: examination by two ILO bodies of reports on the application in law and practice sent by member States and on observations in this regard sent by workers' organizations and employers' organizations.
- Special procedures: unlike the regular system of supervision, the three special procedures listed are based on the submission of a representation or a complaint.

Regarding this general survey which is to be delivered by the 31 December 2017, 124 member countries[26] out of the 187 member countries of the ILO[27] have reported to the director-general of the ILO (66 % of member countries).

The authoritative supervisory system is the second component of the standards initiative, the first being the standards review mechanism.[28] In November 2011, the ILO's governing body decided to establish a standards review mechanism with the objective of ensuring that the ILO has in place a clear and robust body of up-to-date international labour standards that responds to the needs of the world of work, the protection of workers and promotion of sustainable enterprises. At the second meeting in October 2016, occupational safety and health standards were pushed to the top of the standards review mechanism agenda and to be addressed in September 2017.

The governing body is the executive body of the International Labour Organization (the office is the secretariat of the organization). It meets three times a year, in March, June and November. It takes decisions on ILO policy, decides the agenda of the international labour conference, adopts the draft programme and budget of the organization for submission to the conference, and elects the director-general.[29]

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[21] http://www.who.int/mediacentre/events/governance/wha/en/.
[22] C013; C136; C162 and C170.
[23] C115; C120; C139; C148; C167; C174; C176 and C184.
[24] C155; C161 and C187.
[25] http://www.ilo.org/global/about-the-ilo/how-the-ilo-works/ilo-supervisory-system-mechanism/lang--en/index.htm.
[26] http://www.ilo.org/dyn/normlex/en/f?p=1000:11004:::NO.
[27] http://www.ilo.ch/public/english/standards/relm/country.htm.
[28] http://www.ilo.org/global/standards/WCMS_449687/lang--en/index.htm.
[29] http://www.ilo.org/gb/lang--en/index.htm.

3.3 The International Food Standards

The codex alimentarius is a collection of international food safety standards that have been adopted by the codex alimentarius commission since 1962.[30]

These food standards and related texts aim at protecting consumers' health and ensuring fair practices in the food trade. The publication of the codex alimentarius is intended to guide and promote the elaboration and establishment of definitions and requirements for foods to assist in their harmonization and in doing so to facilitate international trade.[31]

The codex alimentarius includes standards for all the principle foods, whether processed, semi-processed or raw, for distribution to the consumer. Materials for further processing into foods should be included to the extent necessary to achieve the purposes of the codex alimentarius as defined. The codex alimentarius includes provisions in respect of food hygiene, food additives, residues of pesticides and veterinary drugs, contaminants, labelling and presentation, methods of analysis and sampling, and import and export inspection and certification.

Codex texts are voluntary and do not have binding effect on national food legislation. However, the World Trade Organization (WTO) agreement on sanitary and phytosanitary measures and on technical barriers to trade encouraged WTO members to harmonise national regulations with the international standards. Since the sanitary and phytosanitary measures agreement specifically identifies codex standards, guidelines and recommendations as the international benchmark for food safety, national regulations consistent with codex standards are deemed to meet the requirement of the sanitary and phytosanitary measures agreement. Under the sanitary and phytosanitary measures agreement, WTO members are allowed to implement national standards that are more stringent than those of codex. In doing so, however, WTO members may be requested to provide scientific justification that such stringent sanitary measures are required to achieve their appropriate level of protection, as well as demonstrate that the measure taken is based on an assessment of risk. Codex standards, guidelines and other recommendations may also be used as a reference in case of a food trade dispute.[32]

The governing body of the codex alimentarius is the codex alimentarius commission,[33] which is the body established by the Food and Agriculture Organization and the World Health Organization. It coordinates input from 187 member countries and one member organization (the European Union) to develop and endorse the international food standards that comprise the codex alimentarius.[34] It makes decisions on the committees' proposals during its annual meeting in July.

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[30] http://www.fao.org/fao-who-codexalimentarius/about-codex/history/en/.
[31] http://www.fao.org/fao-who-codexalimentarius/about-codex/en/#c453333.
[32] http://www.fao.org/fao-who-codexalimentarius/about-codex/faq/faq-detail/en/c/454753/.
[33] The science of food standards, Codex alimentarius commission annual report 2016/17.
[34] http://www.fao.org/fao-who-codexalimentarius/about-codex/faq/faq-detail/en/c/454460/.

4.   REVIEW OF OTHER GOVERNANCE MODELS

The report reviews a number of other governance models with structures and mechanisms that may be of potential relevance to future governance approaches for the sound management of chemicals and waste.

Within this section, five different governance models are highlighted: WHO Framework Convention on Tobacco Control; the Convention on Biological Diversity; the Ramsar Convention on Wetlands; the United Nations Framework Convention on Climate Change; and the United Nations Global Compact.

4.1   Overview of the WHO Framework Convention on Tobacco Control (Tobacco Convention)

NATURE AND FUNCTION OF INITIATIVE	The World Health Organization (WHO) Framework Convention on Tobacco Control (Tobacco Convention) is the first legally binding treaty adopted by the WHO. It was adopted in 2003 and came into force in 2005. The Tobacco Convention was developed by countries in direct response to the global tobacco epidemic and aims to eliminate some of the causes of this epidemic. Article 3 establishes that the objective of the Convention is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke.
GOVERNANCE APPROACH	The Conference of the Parties (COP) acts as the governing body of the WHO Tobacco Convention and is comprised of all parties to the Convention. Observers may also participate in the COP, upon approval of the parties. The Tobacco Convention feeds into the broader Tobacco Free Initiative, which drove the development of the Tobacco Convention. The Tobacco Free Initiative is committed to raising awareness of the threat posed by the global tobacco epidemic and of the steps that can be taken to reduce tobacco use and save lives. It produces a variety of communications and advocacy materials to promote its activities and to inform journalists, the general public and its partners in the public health community about the harms of tobacco. It was established in 1998, before the Tobacco Convention was adopted or came into force. While the Tobacco Free Initiative was not incorporated in the Tobacco Convention itself, some of the Convention's general obligations support the Tobacco Free Initiative.
STAKEHOLDER ENGAGEMENT	The main stakeholders are the parties to the Convention. The Tobacco Convention actively attempts to engage other stakeholders through gaining political and civil society support to encourage the tobacco industry to refrain from undermining tobacco control efforts.
MONITORING AND REPORTING MECHANISMS	Under **article 21** of the Tobacco Convention, each party must submit to the COP, through the secretariat, periodic reports on its implementation of the Convention. Not only should parties provide, in the report, information on measures taken to implement the Convention, but also any constraints or barriers encountered in the implementation of the Convention, and on the measures taken to overcome these barriers. As such, this serves as an information sharing tool also, as these reports are presented at the COP and are also turned into a global progress report by the secretariat. The frequency and format of such reports is determined by the COP. The COP decided each party would submit its report every 2 years.[35] 129 parties out of 181 have provided the secretariat with an implementation report for the year 2016[36] (71 % of parties).
PROMOTING INFORMATION EXCHANGE	In addition to the information sharing that occurs through the periodic progress reports submitted by parties, the secretariat has established six knowledge hubs across the WHO regions. These hubs disseminate information to parties on various scientific, technical and legal matters that would assist in the implementation of the Convention. Their task is to analyse, synthesize and disseminate to the parties to the Convention knowledge and information on matters under their expertise in relation to the Convention, in accordance with article 22 on cooperation in the scientific, technical, and legal fields and provision of related expertise.

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[35] http://apps.who.int/fctc/implementation/database/.
[36] http://apps.who.int/fctc/implementation/database/all-parties.

APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	The Tobacco Convention builds national and sub-regional capacity through various mechanisms; providing technical support to any party who actively asks for assistance in terms of implementing the Tobacco Convention, promoting regional workshops that assist parties with common challenges, and providing legal support to parties engaged in legal action with corporations.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	The Convention secretariat is hosted by the WHO and cooperates with relevant departments of WHO and other competent international organizations and bodies, and non-governmental organizations accredited as observers to the COP. The Convention secretariat has its own work plan and budget, and reports to the COP on implementation. The budget is the total projected cost of the Convention's work plan and is established at each regular session of the COP. The main sources of funds for the Tobacco Convention work plan include assessed contributions established by the COP. They are supplemented by extra-budgetary funds raised by the Convention secretariat. The assessed contributions are budgetary contributions from each party.
SCIENCE, LAW & SOCIAL INTERFACE	Article 22 of the Convention provides for a cooperation between scientific, technical and legal fields. With this regard, the secretariat has established initiatives such as the knowledge hubs to provide for this collaboration. The Tobacco Convention also recognises the social dimensions that come into play in tobacco control such as the needs of vulnerable groups like children and women and as such works with other UN agencies to facilitate this social interface.
ACTION ON EMERGING POLICY ISSUES AND OTHER CHALLENGES	To date the bulk of the challenges faced by the Tobacco Convention has predominantly lied in corporations interfering in a number of tobacco control policies.[37] This has been a particularly difficult challenge for the Tobacco Convention as it has caused a great barrier to effective implementation of tobacco control policies. To address potential corporate interference challenges faced by the Tobacco Convention, the ILO governing body decided to exclude participation from tobacco industry representatives in its meetings[38] and the secretariat implemented tobacco industry monitoring centres (observatories), which monitor, identify and attempt to prevent any corporate interference with the Tobacco Convention mandate.

4.2 Governance models related to biodiversity

4.2.1 Overview of the Convention on Biological Diversity (CBD)

NATURE AND FUNCTION OF INITIATIVE	The Convention on Biological Diversity (CBD) was adopted in 1992 and entered into force in 1993. The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.
GOVERNANCE APPROACH	Article 23 of the Convention establishes a Conference of the Parties (COP), which keeps under review the implementation of the CBD. From 1994 to 1996, the Conference of the Parties held its ordinary meetings annually. Since then, these meetings have been held somewhat less frequently and, following a change in the rules of procedure in 2000, are now held every two years.[39]
STAKEHOLDER ENGAGEMENT	The objectives of the CBD are of direct relevance to other organizations and stakeholder groups. These bodies can play a crucial role in implementing the provisions of the CBD, either directly through their own activities and research, or indirectly by helping to build capacity within governments and other institutions to better meet their CBD commitments. Relevant organizations and stakeholders can also help shape CBD processes and policies by contributing information and expertise to meetings.[40] A module on ensuring stakeholder engagement in the development, implementation and updating of

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[37] http://www.who.int/fctc/secretariat/head/statements/2015/brazilspeech/en/.
[38] http://www.who.int/fctc/mediacentre/news/2017/ilo-governing-body-meeting/en/.
[39] https://www.cbd.int/cop/.
[40] https://www.cbd.int/cooperation/organizations.shtml.

	national biodiversity strategies and action plans was prepared in 2007 with funds from the Global Environment Fund, through the biodiversity planning support programme, UN Environment, in collaboration with the CBD secretariat.[41]
MONITORING AND REPORTING MECHANISMS	Under **article 26** of the CBD, each party shall present to the Conference of the Parties (COP) reports on measures which it has taken for the implementation of the provisions of the Convention and their effectiveness in meeting the objectives of the Convention. The 13th meeting of the COP decided that the 6th national report is due 31 December 2018. For the 5th national report, due on 2014, out of the 196 parties to the Convention, 184 countries reported (94% of parties).
PROMOTING INFORMATION EXCHANGE	Under the Convention, parties must facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, taking into account the special needs of developing countries. Such exchange of information shall include exchange of results of technical, scientific and socio-economic research, as well as information on training and surveying programmes, specialized knowledge, indigenous and traditional knowledge as such and in combination with biotechnologies. A clearing-house mechanism has been established further to article 18 of the Convention. Its mission is to contribute significantly to the implementation of the Convention and its strategic plan for biodiversity 2011-2020, through effective information services and other appropriate means in order to promote and facilitate scientific and technical cooperation, knowledge sharing and information exchange, and to establish a fully operational network of parties and partners.[42]
APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	Under article 6 of the CBD, each party to the Convention must, among others, develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes. The 10th meeting of the Conference of the Parties, held in 2010, in Nagoya, Japan, adopted a revised and updated strategic plan for biodiversity, including the Aichi biodiversity targets, for the 2011-2020 period. Parties agreed to translate this overarching international framework into revised and updated national biodiversity strategies and action plans within two years. The strategic plan for biodiversity provides an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system and all other partners engaged in biodiversity management and policy development. It includes 6 key elements: (i) rationale (ii) vision statement (iii) mission statement (iv) 5 strategic goals and 20 targets (v) implementation, monitoring, review and evaluation (vi) support mechanisms. The creation of the Aichi biodiversity targets are of particular interest. The Aichi biodiversity targets are a set of 20, time-bound, measureable targets. This method assists the biodiversity community in creating a clear plan of action with measurable targets for a time-bound goal.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	To achieve the Aichi Targets, a level of financial investment is required from all sectors, including government, industry and civil society. The level of that investment has been considered at various scales and for some biodiversity targets; however a comprehensive study has not been carried out to date. Equally, the return derived from the benefits arising from meeting the Aichi Targets requires further investigation.[43]
SCIENCE, LAW & SOCIAL INTERFACE	Some of the social considerations inherent in the Convention on Biological Diversity are the relationship between local and indigenous communities and their knowledge in the management and conservation of biodiversity. Indeed, under the Convention, each party must respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles

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[41] https://www.cbd.int/doc/training/nbsap/b5-train-stakeholder-nbsap-en.pdf.
[42] https://www.cbd.int/chm/.
[43] https://www.cbd.int/financial/hlp.shtml.

	relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.
ACTION ON EMERGING POLICY ISSUES AND OTHER CHALLENGES	The consolidated modus operandi of the subsidiary body on scientific, technical and technological advice, adopted by the COP, lists among its functions that the subsidiary body on scientific, technical and technological advice should inter alia identify new and emerging issues relating to the conservation and sustainable use of biodiversity. The COP provided guidance on the procedure for the identification of new and emerging issues and on the review of proposals. In accordance with this decision, parties and relevant organizations are invited after each meeting of the COP to submit proposals on new and emerging issues relating to the conservation and sustainable use of biodiversity.

4.2.2   Overview of the Convention on Wetlands (Ramsar Convention)

NATURE AND FUNCTION OF INITIATIVE	The Convention on Wetlands (Ramsar Convention) came into force in 1975. It is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Its broad objective is to conserve wetlands and to promote the wise use of wetlands to mitigate their loss.
GOVERNANCE APPROACH	The decision-making body is the Conference of the Contracting Parties (COP) which meets every three years. Between meetings of the COPs, parties are represented by the standing committee, which meets yearly. Two advisory bodies develop technical guidance to help the standing committee and the COP formulate policies: the scientific and technical review panel and the communication, capacity building, education, participation and awareness oversight panel. Those two bodies are supported by six international organization partners, which parties have formally recognized as official partners of the Convention. Those partners are all non-governmental organisations. They also support all Convention's processes internationally, nationally and locally.
STAKEHOLDER ENGAGEMENT	169 UN States Members are parties to the Ramsar Convention. Parties are the main stakeholders but many non-governmental organisations also support the implementation of the Convention, in particular the six international organization partners. In addition, under the communication, capacity building, education, participation and awareness programme, each party designates a governmental focal point and a non-governmental focal point. The members of the scientific and technical review panel are individual experts. The scientific and technical review panel national focal point of each party acts as a liaison between the national wetland practitioners and the scientific and technical review panel. They are scientific and technical experts from either the government or an organization or institution. The scientific and technical review panel leverages its own networks of wetland experts nationally and internationally to contribute to the work of the panel. National Ramsar committees can also activate networks of experts.
MONITORING AND REPORTING MECHANISMS	Recommendation 2.1 (1984) urges parties to submit detailed national reports to the secretariat at least six months before each ordinary meeting of the Conference.[44] These national reports are prepared following a format adopted by parties which follows the strategic plan of the Convention, and they become part of public record. For instance, under the strategic plan, parties are expected to establish national wetland committees, carry out national wetland inventories, calculate national wetland extent, and are required to report on their progress in this regard. In addition, under article 3.2 of the treaty, parties are expected to report to the secretariat any changes or threats to the ecological character of their listed wetlands and to respond to the secretariat's enquiries about such reports received from third parties. For the year 2015, 136 parties submitted their national reports out of 168[45] (81 % of parties).

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[44] https://www.ramsar.org/sites/default/files/documents/library/key_rec_2.01e.pdf.

PROMOTING INFORMATION EXCHANGE	Information exchange occurs primarily through the secretariat, the Ramsar Convention website, the Ramsar exchange email list for distribution of information to parties, the Ramsar forum for exchange of news by email among stakeholders, and the work of subsidiary bodies. This is facilitated through a dedicated website: Ramsar sites information service, which provides online information on wetlands that have been designated as internationally important. The Ramsar Convention website is also a documentation centre. Different tools and written guidance documents support the science-policy interface: Ramsar handbooks, technical reports, policy briefs, briefing notes, fact sheets, etc. The secretariat also produces a quarterly newsletter for parties and the wider community of stakeholders and the public.
APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	Contracting parties are encouraged to establish national wetland committees that will ensure adherence to the Convention guidelines on a regional and sub-regional level. This is with assistance from an administrative authority assigned by each contracting party. In addition, there are 19 regional initiatives that support cooperation and capacity-building on wetland-related issues in specific regions or sub-regions. Ramsar regional initiatives are an additional tool to increase implementation capacity in specific regions. They are a voluntary tool, bottom-up, established by parties willing to cooperate with other parties in given regions. The secretariat also provides training through webinars and face-to-face training on Convention tools.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	The core budget is set by the COP and administered by the secretariat. The secretariat is administered by the International Union for Conservation of Nature and Natural Resources (IUCN). The secretariat and its work programme are financed by governments. Private donors, most notably the Danone group, support specific activities in support of wetland conservation.[46] Parties to the Convention established the small grants fund in 1990 to help developing countries support the conservation and wise use of wetland resources, and the sustainable development of communities which depend on them and care for them. Since then, the fund has provided over eight million Swiss francs to over 240 projects from 110 countries. The Ramsar small grants fund relies entirely upon voluntary contributions from governments and individuals. It is currently at a stand-still, with no further voluntary financial donations nor project proposals.
SCIENCE, LAW & SOCIAL INTERFACE	There is a strong science and policy interface that is provided by the scientific and technical review panel for the Convention and their network of national focal points. In addition, the Ramsar Convention notably has a strong social interface through the Ramsar culture network, which encourages governments to acknowledge the strong role that wetlands play in the cultural practices of certain communities and thus call on indigenous communities to be able to play a role in the conservation of wetlands. The Ramsar culture network encourages governments to actively engage with indigenous groups to facilitate a partnership to encourage the inclusion of cultural values and practices into the management scheme.[47]
ACTION ON EMERGING POLICY ISSUES AND OTHER CHALLENGES	A guideline was prepared for contracting parties and other capacity building, education, participation and awareness practitioners, to assist in the action planning process. It is entitled a guide to participatory action planning and techniques for facilitating groups. It provides an easy-to-use practical tool that will guide practitioners in organizing well-designed and well-run participatory action planning processes that employ a range of techniques for facilitating diverse multi-stakeholder groups.[48] Many guidelines and handbooks and similar supporting materials have been prepared, and are accessible through the Ramsar Convention website.

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[45]http://www.ramsar.org/search?search_api_views_fulltext=&f[0]=type%3Adocument&f[1]=field_tag_categories%3A510.

[46] http://archive.ramsar.org/cda/en/ramsar-activities-partnershipindex-private-danone/main/ramsar/1-63-506-98-398_4000_0__.

[47] http://www.ramsar.org/sites/default/files/documents/library/introducing_ramsar_web_eng.pdf.

[48] http://www.ramsar.org/activity/cepa-action-plans-and-guidelines.

OTHER OBSERVATIONS	The largest challenge which the Ramsar Convention faces is that wetlands continue to be lost or degraded and are the most threatened type of ecosystems. Aquatic biodiversity is correspondingly threatened. Around 70% of wetlands have been lost in the past hundred years. Other challenges are to ensure access to fresh water, to improve water governance, and to maintain the benefits provided by wetlands for economic development and the livelihoods of people.

4.3   Overview of the United Nations Framework Convention on Climate Change (UNFCCC)

NATURE AND FUNCTION OF INITIATIVE	The United Nations Framework Convention on Climate Change (UNFCCC) is a framework convention which entered into force in 1994 and sets an overall framework for global acknowledgment and efforts to tackle the threat posed by climate change. The framework sets no binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms. Instead, the framework outlines how specific protocols or agreements may be negotiated to set binding limits on greenhouse gases. This has been done through the Kyoto Protocol and its two commitment periods (2008-2012 and 2013-2020). The Paris Agreement entered into force in 2016. Its central aim is to strengthen the global response by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and as close to 1.5 degree as possible.
GOVERNANCE APPROACH	The Conference of the Parties (COP) of UNFCCC serves as meeting of the parties to the Paris Agreement. Some relevant constituent bodies to the UNFCCC include: • Subsidiary body for scientific and technological advice • Subsidiary body for implementation • Bureau of the COP, Conference of the Parties serving as the meeting of the parties to the Kyoto Protocol and Conference of the Parties serving as the meeting of the parties to the Paris Agreement • Kyoto Protocol compliance committee • Executive board of the clean development mechanism • Financial mechanism with two operating entities: Global Environment Facility (GEF) and the green climate fund • Standing committee on finance • Technology executive committee • Adaptation committee • Least developed countries expert group • Consultative group of experts on greenhouse gas inventories
STAKEHOLDER ENGAGEMENT	The main stakeholders are the parties to the Convention. Stakeholder engagement operates at different levels across the multiplicity of UNFCCC bodies. Relatively few of the existing international climate partnerships, initiatives, and platforms provide a space for governments, business, and civil society to work as equals toward a shared climate goal. Of 13 major international climate initiatives studied by the Netherlands environmental assessment agency, only one - the global methane initiative - included national governments, business, and international/civil society organizations as equal.[49]

	The role of non-party stakeholders has grown year by year. The Marrakech partnership for global climate action is one avenue for their engagement. Many stakeholders are also active as observers of the formal UNFCCC meetings. A local communities and indigenous peoples platform aims to facilitate the exchange of experience and sharing of best practices and lessons learned. Technical examination processes on adaptation and on mitigation raise awareness of potential solutions and of barriers to their deployment.
MONITORING AND REPORTING MECHANISMS	National reports are mandated for all member countries to submit. The content that the report must provide and its timeframe varies depending on whether parties are annex I (industrialized countries) or non-annex I parties (developing countries and least developed countries),[50] in accordance with the principle of common but differentiated responsibilities enshrined in the Convention. These reports are publicly considered during UNFCCC sessions. Annex 1 countries must provide national communications on national actions and policy responses, biennial reports and annual greenhouse gas inventories containing information on emissions and removals. Non-annex 1 countries must submit national communications, biennial update reports and national adaptation programme of actions. Regarding national communications, 44 annex 1 parties have submitted the sixth national communication due 1 January 2014[51] out of 44 (100% of parties) and 95 non-annex 1 parties have submitted their last national communication [52] out of 156 parties (61 % of parties).
PROMOTING INFORMATION EXCHANGE	Information exchange occurs through a range of bodies, addressing inter alia the scientific aspects of climate change and mitigation and adaptation methods. For instance, the climate change information network serves as a clearinghouse for information sources on public information, education and training in the field of climate change. It is designed to help governments, organizations and individuals gain rapid and easy access to ideas, strategies, contacts, experts and materials that can be used to motivate and empower people to take effective action on climate change. The climate change information network has been established at the request of the parties to the UNFCCC. Their underlying aim is to support article 6 of the Convention, which calls on governments to promote education, training and public awareness on climate change. Information exchange also occurs through the International Panel on Climate Change (see below).
APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	Building capacity of developing country parties with the support of developed country parties is central to the approach taken by the Paris Agreement. A new standing committee (Paris committee on capacity building) has been established to coordinate this effort. Most of the other bodies under the Convention also contribute to capacity building.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	Every two years, the executive secretary proposes a programme budget[53] setting out the proposed activities and budget of the secretariat for the coming two years. The subsidiary body for implementation considers the proposal and forwards a recommended programme budget to the COP for its approval. The resources of the COP comprise contributions by parties according to an indicative scale adopted by the COP by consensus, voluntary contributions by parties and the uncommitted balance of appropriations from previous financial periods and miscellaneous income. The indicative scale is based on the United Nations as amended at COP 4: each party contributes no less than 0.001 per cent nor more than 25 per cent to the Convention part of the core budget.[54]

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[50] http://unfccc.int/national_reports/items/1408.php.
[51]http://unfccc.int/national_reports/national_communications_and_biennial_reports/submissions/items/7742.php.
[52] http://unfccc.int/national_reports/non-annex_i_natcom/items/10124.php.
[53] http://unfccc.int/secretariat/unfccc_budget/items/9928.php.
[54]
http://unfccc.int/parties_and_observers/parties/administrtative_and_financial_matters/items/3009.php.

SCIENCE, LAW & SOCIAL INTERFACE	The Intergovernmental Panel on Climate Change (IPCC) is the international body for assessing the science related to climate change.[55] It does not conduct any research nor does it monitor climate-related data or parameters. Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis as authors, contributors and reviewers. The work of the IPCC is guided by a set of principles and procedures. The COP relies on the IPCC for scientific advice and considers its assessment reports. The achievement of the major milestone under the UNFCCC have been facilitated by the major IPCC assessment reports making the UNFCCC a science driven process. The IPCC also prepares methodologies for the reporting of emissions and removals of greenhouse gases.
ACTION ON EMERGING POLICY ISSUES AND OTHER CHALLENGES	Created in 2010, the technology executive committee is the policy arm of the technology mechanism. It focuses on identifying policies that can accelerate the development and transfer of low-emission and climate resilient technologies.[56] The climate technology center and network is the operational arm.
OTHER OBSERVATIONS	All parties to the Paris Agreement are to submit nationally determined contributions to the objective of the agreement. Nationally determined contributions are a way of documenting domestic mitigation measures.[57] Article 3 requires nationally determined contributions to be ambitious, represent a progression over time and importantly set with the view to achieving the purpose of the Agreement. It also embeds the principle of progression in that it requires that each further ambition be more ambitious than the previous one.[58] The 2018 talanoa dialogue will inform the preparation of the next round of nationally determined contributions and promote greater ambition. The UNFCCC secretariat plays an important oversight role. Nationally determined contributions must be registered and the contributions should be reported every five years.[59] It is a mechanism that allows parties to the Agreement a fair amount of autonomy and self-regulation. It also ensures that parties contribute to global commitments to climate change. The Agreement itself provides a framework for how those commitments should be made and ways to monitor compliance thereto.

4.4 Overview of the United Nations Global Compact (the Global Compact)

NATURE AND FUNCTION OF INITIATIVE	Proposed in 2000[60] and adopted in 2005,[61] the United Nations Global Compact (the Global Compact) is a multi-stakeholder pact created amongst businesses, government and international organizations that encourages businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation. The main objectives of the Global Compact is to encourage businesses to incorporate environmental and social issues into their business operations and take action in support of UN goals, through adhering to a concise set of ten principles. Those principles, in the fields of human rights, labour, environment and anti-corruption, are derived from various UN declarations and conventions. Companies and non-businesses which joined the Global Compact committed themselves to adhere to the principles set out in the Global Compact. By incorporating the Global Compact principles into strategies, policies and procedures, and establishing a culture of integrity, companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success.
GOVERNANCE APPROACH	The leaders' summit is a triennial gathering of the most senior executives of Global Compact participants and other stakeholders from government, civil society, academia, local networks and the

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[55] http://www.ipcc.ch/news_and_events/docs/factsheets/FS_what_ipcc.pdf.
[56] http://unfccc.int/ttclear/tec.
[57] http://www4.unfccc.int/ndcregistry/Pages/All.aspx.
[58] Articles 3, 9(3) of the Paris Agreement (2015).
[59] Article 4(9) of the Paris Agreement (2015).
[60] https://www.un.org/press/en/1999/19990201.sgsm6881.html.
[61] https://www.unglobalcompact.org/about/governance.

	UN. It produces strategic guidance for the continued evolution of the Global Compact for maximum impact. The multi-stakeholder UN Global Compact board is chaired by the UN Secretary-General and meets every 6-9 months. It decides entry and exit criteria for signatories to the initiative and sets policy on the Global Compact's integrity measures as well as overseeing their implementation. It provides high-level strategic advice to the UN Secretary-General and the Global Compact office. The executive director of the Global Compact office, the chair of the foundation for the Global Compact, and the chair of the local networks advisory group (see below) are ex-officio members of the board. The annual local networks forum gathers the 80+ country networks of the Global Compact which decide on policy relating to the governance of local networks. The local networks advisory group ensures high quality information flows between the Global Compact HQ and local networks and facilitates local network input into Global Compact HQ activities. The local networks handle governance of the initiative at the country level. They are clusters of participants (business and non-business) who come together to advance the Global Compact principles and UN goals within a particular geographic context. The relationship between local networks and Global Compact HQ is set out in a memorandum of understanding that each party signs on an annual basis which lays out clear expectations of both parties. These structures are supported by an executive management team.
STAKEHOLDER ENGAGEMENT	The Global Compact comprises of 9 000 companies and 4 000 non-businesses.[62] Businesses, civil society organizations, business associations, labour organizations, academic institutions and cities are all invited to join. Participation in the Global Compact is open to any company that is serious about its commitment. The application process to join the Global Compact varies depending on the nature of the applicant (business or non-business). In essence, the applicant has to (i) prepare a letter of commitment signed by the chief executive to the Secretary-General of the UN expressing commitment to the Global Compact and its ten principles, (ii) take concrete steps to fulfill the ten principles (iii) report on progress made to meet this commitment.
MONITORING AND REPORTING MECHANISMS	The reporting mechanism utilised by the Global Compact is the mandatory communication of progress report that each member business must submit yearly to the Global Compact. The Global Compact requires participating companies to produce an annual communication on progress that details their work to embed the ten principles into their strategies and operations, as well as efforts to support societal priorities. Non-business participants are required to produce an annual communication on engagement that describes the ways that they advance the initiative. There is virtually no monitoring and compliance mechanism outside of these reports on whether or not member corporations are conducting their business activities in line with the core principles of the Global Compact. In order to address this, integrity measures that actively look at allegations of member non-compliance with core principals have been adopted. The measures are in place to protect the integrity of the initiative and the UN from key risks associated with the potential for misrepresentation. These integrity measures are aimed at promoting greater public accountability and transparency of participants for their corporate sustainability performance. Implementation of the integrity measures is overseen by the UN Global Compact board. Despite being the world largest corporate voluntary initiative, the Global Compact has received a lot of criticism on the effectiveness of their reporting initiative. Critics have deemed the notion of self-reporting to be too weak to be a credible reporting and monitoring scheme in that it is not a sufficient mechanism to hold companies accountable due to lack of legal enforceability.[63]

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[62] https://www.unglobalcompact.org/what-is-gc/participants.
[63] http://www.corpwatch.org/article.php?id=14549.

	The total number of Global Compact active communications of progress received is 30 265.[64]
PROMOTING INFORMATION EXCHANGE	The Global Compact has adopted a particularly innovative approach to information exchange. This is through the project breakthrough initiative that is an online platform that showcases business models, mind sets and technologies that will address implementation of the SDGs and to actively show businesses that they can adopt new and more sustainable business practises but at the same time push profits. This is done through podcasts, videos and articles.
APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	The Global Compact where possible has independent local networks in various countries that facilitate regional and sub-regional fulfilment of their core principals and reporting initiative. Currently those countries are hoping to enhance regional engagement and action through their make global goals, local business initiative.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	All Global Compact operations, programmes and activities are made possible by contributions from two funding sources: (i) UN Global Compact trust fund which receives contributions from governments. Governments also provide direct support to a specific Global Compact local network and to specific Global Compact initiatives in line with the Global Compact strategy. The contribution of governments can be financial or in kind. (ii) the foundation for the Global Compact which receives donations from businesses. Over 1,500 businesses have made contributions to the Global Compact in 2017.[65] The foundation for the Global Compact is incorporated under the laws of New York State as a not-for-profit corporation, and as such is exempt from tax and qualifies for maximum charitable contribution deductions by donors where applicable.
SCIENCE, LAW & SOCIAL INTERFACE	Companies need governments to offer a strong rule of law so that businesses can meet their commitments to universal sustainability standards – including the UN Global Compact's ten principles. The Global Compact developed the UN Global Compact's business for the rule of law framework to explain how companies can respect and support the rule of law to complement required government action.[66]
ACTION ON EMERGING POLICY ISSUES AND OTHER CHALLENGES	The Global Compact is heavily engaged with emerging policy issues and tries to frame their initiatives around them. For example many of the initiatives have been amended this year to be in line with the recent adopted Sustainable Development Goals (SDGs), such as the next-generation solutions platforms to achieve the SDGs and the SDG toolbox both of which act as blueprints and guides for business to adopt the SDGs into their business practices.
OTHER OBSERVATIONS	The Global Policy forum, which is an independent policy watchdog that monitors the work of the UN and scrutinizes global policymaking,[67] has argued that the Global Compact has led to small positive changes, but not far-reaching organizational impact.[68] The Global Compact has attempted to resolve this through implementing a number of integrity polices to build up credibility and accountability such as the logo policy and dialogue facilitation. Both are utilised to prevent businesses from utilising the Global Compact and a public relations tool and not adhering to the ten principles of the Global Compact.

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[64] https://www.unglobalcompact.org/participation/report/cop/create-and-submit/active.
[65] https://www.unglobalcompact.org/about/finances.
[66] https://www.unglobalcompact.org/what-is-gc/our-work/governance/rule-law.
[67] https://www.globalpolicy.org/about-gpf-mm.html.
[68] http://www.larrybridwell.com/Corporate%20Social%20Responsibility%20and%20UN%20Global%20CompactBitangaBridwell.pdf.

5. REVIEW OF SCIENCE-POLICY INTERFACES

The importance of the science-policy interface is widely acknowledged throughout the UN system and regularly mentioned in high-level documents and decisions taken by governing bodies of intergovernmental organizations. Paragraph 88 of "The future we want", the outcome document of the United Nations Conference on Environment and Development, calls for "a strong science-policy interface, building on existing international instruments, assessments, panels and information networks, including the global environment network, as one of the processes aimed at bringing together information and assessment to support informed decision-making."

Within this section, five different panels and processes are highlighted: First, high-level panels, either commissioned by the UN Secretary-General or independently organized; second, the Intergovernmental Panel on Climate Change (IPCC); third, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (the Platform); fourth, the International Resource Panel, and fifth, the Global Environment Outlook series.

5.1 High level panels

High-level panels are typically established for a limited time to deal with a specific challenge in global governance and to produce a report including recommendations how to deal with it. The mandates of these panels can cover quite broad areas, such as that of the world commission on environment and development (Brundtland commission, completed in 1987), or more narrow, e.g. the high-level panel on access to medicines (completed in 2016) or the high level panel on water (ongoing).

Such high-level panels are often commissioned by the UN Secretary-General. Over the past 20 years, the various Secretary-General of the UN have increasingly utilized them as a means to gather expertise on issues such as institutional or administrative reform, dealing with new or unresolved challenges, or enhancing the impact of UN work (Von Einsiedel and Pichler Fong 2017). Examples for these panels include the high-level panel on women's economic empowerment (ongoing), the high-level panel on humanitarian financing (completed in 2016), the high-level panel on the post-2015 development agenda (completed in 2013), the high-level panel on system-wide coherence (completed in 2006), and the high-level panel on threats, challenges and change (completed in 2004).

Von Einsiedel and Pichler Fong 2017 points out that in order for such panels to be effective in fostering change, they first need to be based on a thorough analysis of the gaps to be addressed and the anticipated achievements of a panel. Furthermore, their composition must be balanced and up to the task, especially if governmental buy-in to proposed reforms is necessary at a later stage; they must produce a high-quality product which will likely remain a reference for years to come; they must be able to manage the political reverberations of their tasks and issues; and they must ensure a dedicated follow-up process if their recommendations are not to be forgotten quickly.

The UN scientific advisory board was established in 2014 by the UN Secretary-General. The scientific advisory board comprised 26 members, who were supported by the UNESCO secretariat and published their findings in 2016. One of the key recommendations in their report on "The future of scientific advice to the United Nations" is that science should be an integral part of policy discussions, rather than a mere add-on. The scientific advisory board calls for a science-policy-society interface, bringing together diverse sources of knowledge and made functional by a structure which ensures the thoroughness of scientific findings and guarantees that policy-making is based on all available evidence. By including a range of stakeholders in the assessment process, diverse views are being brought to the table. New and emerging challenges can be detected early on, and new and innovative solutions can likewise be discussed and disseminated at an early stage. It has to be ensured, though, that the assessments are still scientifically rigorous, and that uncertainties are clearly outlined. Therefore, this science-policy-society interface should be based on "an institutionalized architecture that convenes all affected parties to assure that scientific knowledge is utilized fully so that policy-making is evidence-based." (scientific advisory board 2016: 17)

Other forms of high-level panels are not UN-driven, but organized by non-governmental organizations or elder statespersons. An example for the former is the world commission on dams, which was established by the World Bank and IUCN in 1998 and published its final report in 2000, including a review of the effectiveness and consequences of dams and recommendations for standards and guidelines for future dam-building. Another example is the international network for government science advice. The international network for government science advice's mission "is to provide a forum for policy makers, practitioners, national academies, and academics to share experience, build capacity and develop theoretical and practical approaches to the use of scientific evidence in informing policy at all levels of government."[69] The international network for government science advice works under the auspices of the international council for science, which itself is a non-governmental organization comprising 122 national scientific bodies and 31 international scientific unions.

5.2   The Intergovernmental Panel on Climate Change

The IPCC was jointly established by the world meteorological organization and the United Nations Environment Programme in 1988. As an intergovernmental body, membership is open to all members of either the world meteorological organization or the United Nations Environment Programme. The IPCC has currently 195 member countries. The IPCC secretariat is located at the world meteorological organization headquarters in Geneva, Switzerland.

The mission of the IPCC is to assess the state of knowledge on global climate change, including by writing reports summarizing findings from peer reviewed studies published in the scientific literature as well as other sources. Its mission is not to undertake new research or engage in monitoring activities of the global climate system. The IPCC predates the UNFCCC and has contributed essential knowledge to support its formation and subsequent development.

Figure 1: Structure of the IPCC.[70]

[69] http://www.ingsa.org/about/.
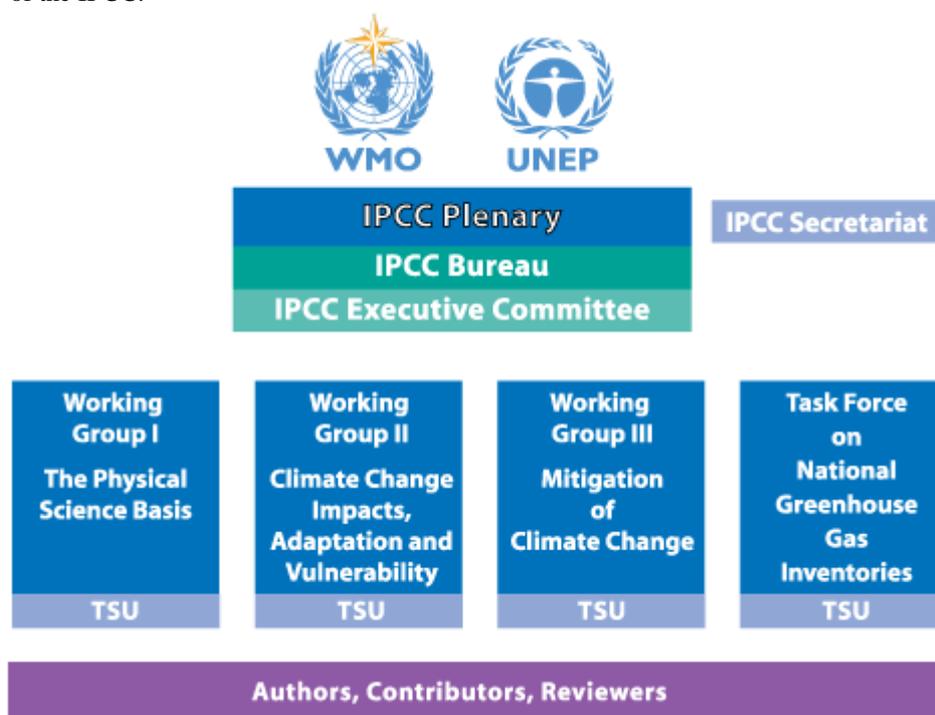
[70] http://www.ipcc.ch/organization/organization_structure.shtml.

The IPCC is governed by the plenary, which meets twice per year. During the plenary, the IPCC Bureau is elected to provide guidance to the IPCC on the scientific and technical aspects of its work, to advise on related management and strategic issues, and to take decisions on specific issues within its mandate. The IPCC decided to establish an executive committee to strengthen and facilitate timely and effective implementation of the programme of work, to strengthen coordination between working groups and task forces and to address urgent issues that require prompt attention by the IPCC between Panel sessions.

The IPCC conducts its work in three working groups: the first working group assesses the physical science basis of climate change; the second working group focuses on climate change impacts, adaptation and vulnerability; and the third working group deals with mitigation of climate change. Each working group has a technical support unit, as does the task force on national greenhouse gas inventories.

The IPCC is best known for its comprehensive assessment reports, which were essential in the development of global climate governance. Reports of the IPCC are supposed to be "neutral with respect to policy, although they may need to deal objectively with scientific, technical and socio-economic factors relevant to the application of particular policies."[71] So far, IPCC has published five assessment reports in 1990, 1995, 2001, 2007, 2014.

The sixth assessment report is scheduled to be finalized in 2021. Furthermore, the IPCC has published 11 special reports thus far, including on risk management for extreme events and disasters, renewable energy, carbon dioxide capture and storage as well as emissions scenarios. Currently, a special report on the 1.5°C goal is underway as well as special reports on the ocean and cryosphere in a changing climate and on climate change and land. In addition to these, the IPCC has also issued a number of methodological reports.

The procedure for writing reports begins with the approval of an outline by the plenary. Based on nominations for authors including detailed CVs by IPCC member states and observer organizations, author selection is then done by the Bureau of each working group. Each chapter is written by a team which consists of coordinating lead authors, lead authors, and review editors. The composition of each team should be regionally and gender balanced.[72] The authors write a first draft, which is undergoing an expert review, and based on this they produce a second draft. This is undergoing an expert and governmental review, after which the authors provide a final draft for approval by the plenary. After this, the summary for policy makers is discussed and agreed upon sentence by sentence by governmental delegates during the plenary, a process which makes sure that the key messages of the report and their relevance for climate policy are acknowledged by decision makers.

5.3   The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

The Platform was established in 2012 by States Members of the UN. The Platform is placed under the auspices of the United Nations Environment Programme, the Food and Agriculture Organization, the United Nations Development Programme, and UNESCO, and administered by the United Nations Environment Programme. Like the IPCC, the Platform is an intergovernmental body with currently 127 member states, plus a large number of non-governmental organizations and other stakeholders participating as observers. The IPBES secretariat, including the technical support units, conducts administrative functions and is located in Bonn, Germany.

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[71] http://www.ipcc.ch/pdf/ipcc-principles/ipcc-principles.pdf.
[72] https://www.ipcc.ch/news_and_events/docs/factsheets/FS_select_authors.pdf.

The Platform was established as an independent science-policy platform which "provides policymakers with objective scientific assessments about the state of knowledge regarding the planet's biodiversity, ecosystems and the benefits they provide to people, as well as the tools and methods to protect and sustainably use these vital natural assets."[73] Its mission is to strengthen knowledge foundations for better policy through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development. In contrast to prior efforts to assess knowledge in the field of biodiversity such as the global biodiversity assessment and the millennium ecosystem assessment (2001-2005), the Platform is a permanent, intergovernmental structure with a dedicated budget.[74]

As the name of the body suggests, the Platform has a strong science-policy interface. To some extent the Platform does for biodiversity what the IPCC does for climate change.

The plenary is the highest decision-making body of the Platform. The plenary has appointed two subsidiary bodies: (i) the Bureau and (ii) the multidisciplinary expert panel.

- The Bureau comprises 10 members (two from each UN region) and oversees the administrative tasks of the Platform.
- The scientific and technical work is overseen by the multidisciplinary expert panel. It consists of 25 members (five from each UN region). Meetings of the multidisciplinary expert panel can be attended by observers including members of the Bureau, chairs of the scientific bodies of biodiversity related multilateral environmental agreements, and the chair of IPCC.

Assessments and other deliverables are supposed to be policy-relevant but not policy prescriptive. They are produced by expert groups and taskforces.

The Platform provides four essential functions:

- **Assessments**: Producing detailed state-of-the-art reports on specific issues such as pollinators, on methodological aspects including scenarios and modelling, and on both the regional and global level;

Assessments in the Platform are defined as published assessments of scientific, technical and socioeconomic issues that take into account different approaches, visions and knowledge systems. For the first Platform work program, the plenary has requested a series of thematic, methodological, regional, and global assessments on biodiversity and ecosystem services, totalling at least 9 standalone reports.

Assessments are conducted to assess the regional and sub-regional levels of biodiversity and ecosystem services. These assessments ultimately assist when the multidisciplinary expert panel scientists make recommendations to policy makers.

It is expected that through this objective the Platform will accomplish an iterative strengthening of the science-policy interface for biodiversity and ecosystem services across a polycentric set of interacting governance and knowledge systems at different scales.

- **Policy support**: Identify instruments and means with policy-relevance and foster their use and further development;

One of the greatest challenges faced by the Platform is the wide expanse of knowledge that the scientific body needs to cover to identify the global threats to biodiversity including: habitat destruction, overharvesting, invasive species, and climate change. Furthermore, these scientific topics often intertwine with more specific social and regional issues that may include land-use conflicts in cultural landscapes, rights of indigenous people, genetically modified organisms, and biofuel production and their effects on species, habitats, and ecosystems at local, regional, or global scales.

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[73] https://www.ipbes.net/about.
[74] http://www.icpublicpolicy.org/conference/file/reponse/1433767160.pdf.

An expert-based approach, which entails the use of expert opinion, knowledge (including scientific theory) or judgment to inform the various aspects of constructing scenarios and models of drivers, is seen as providing a greater understanding of policy issues[75]. Key policy issues include data access and sharing practices, as well as managing trade-offs and opportunities for synergies between biodiversity conservation, food security and livelihoods across contrasting social-ecological regions.

- **Building capacity & knowledge**: Identification and provision of information and data requirements of members;

The Platform has been mandated to identify and prioritize capacity-building needs linked to achieving the Platform work programme, and to help identifying resources for meeting those needs by means of a forum convening conventional and potential sources of funding and a web based matchmaking facility.

The Platform integrates capacity building into all relevant aspects of the its work and undertakes capacity-building activities that address the priority needs identified to implement the Platform's work programme.

- **Communications & outreach**: Spreading information about the work and results of the Platform and its assessments.

The Platform has been mandated to identify and prioritize key scientific information needed for policymakers at appropriate scales, and to catalyse efforts to generate new knowledge in dialogue with scientific organizations, policymakers and funding organizations, while not directly undertaking new research.

Recognising the importance of access to and management of knowledge and data to the implementation of the work programme, the Platform established a task force on knowledge and data and agreed on terms of reference guiding its operations implementing this deliverable, which is to be supported through and built on a thematically widespread network of institutions and relevant initiatives such as initiatives to provide indigenous and local knowledge and citizen science initiatives.

In addition, the Platform is requested to develop an information management plan, in close coordination with and building on current international initiatives. Assuring data and information used in the development of the Platform's assessments is available beyond the initial assessment is critical for the future of the Platform's activities. The catalogue of relevant assessments, and the catalogue of policy support tools and methodologies are components of an information management system. The implementation of this deliverable is guided and supported by the task force on knowledge and data.

The 2014 – 2018 work programme was agreed at the second meeting of the Platform plenary through decision 2/5. It comprises four objectives and 18 deliverables. However, the full delivery of the work programme has been called into question at the fifth session of the Platform's plenary in March 2017 due to funding shortages.

It has a variable operational budget of approximately US$3-10 million per year and, to date, has received the majority of contributions from government members. The Platform also relies on significant support from in-kind contributions, including the volunteered time of all participating experts and the provision of international technical support and facilities for its meetings.

The Platform is dependent on future financial contributions to complete its work program and fundraising was recognised at the fourth plenary meeting as an important future priority.

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[75]https://www.ipbes.net/sites/default/files/downloads/pdf/2016.methodological_assessment_report_scenarios_models.pdf.

The selection of experts who conduct assessments is based on nominations by member states and other stakeholders. However, nominations from non-governmental observers should not exceed 20% of experts in any assessment process.[76] The multidisciplinary expert panel selects among the nominated experts according to scientific credibility and takes care to include a range of scientific expertise, have a balanced regional representation and gender balance, and reflects the diversity of knowledge systems.

For the Platform, inclusion of indigenous knowledge is particularly important (Thaman et al. 2013; Turnhout et al. 2012). This mirrors the relatively strong participation of indigenous groups in the Convention on Biological Diversity, especially in comparison to the UNFCCC and the IPCC. To foster indigenous knowledge uptake in assessments, the Platform has established a special task force and broadened its view towards the effects of biodiversity loss beyond economic damages (Beck et al. 2014; 84). While the focus is the interface between science and policy-making, the Platform has integrated some of the social considerations inherent in the Convention on Biological Diversity, such as the relationship between local and indigenous communities and their knowledge in the management and conservation of biodiversity. The Platform gives particular importance to the integration of knowledge originating from these groups and it is embedded in its conceptual framework.

An assessment's co-chairs oversee the writing of the report; coordinating lead authors coordinate larger sections and chapters and ensure coherence especially on cross-cutting issues; lead authors write chapters or parts thereof based on available scientific and other literature; and contributing authors prepare sections within chapters and prepare technical information. The review of the Platform assessments is supported by review editors and actually conducted by expert reviewers, who comment on the scientific accuracy of written drafts.

5.4   The International Resource Panel

The International Resource Panel was established in 2007 by the United Nations Environment Programme. Its mission is "to provide independent, coherent and authoritative scientific assessments of policy relevance on the sustainable use of natural resources and, in particular, their environmental impacts over the full life cycle; and contribute to a better understanding of how to decouple economic growth from environmental degradation."[77]

To achieve this mission, the International Resource Panel is tasked with the preparation of studies and assessments on sustainable use and management of natural resources throughout their life-cycle. It is expected to inform the global policy debate without being policy-prescriptive, including on means to move away from overconsumption and towards equitable access to natural resources.

The International Resource Panel has three main components: the panel, the steering committee, and the secretariat.

The **panel** brings together 34 experts on natural resource management, including scientists, governmental representatives and other stakeholders from developed and developing countries. It is chaired by two co-chairs.

The **steering committee** comprises about 30 countries, 12 of which provide funds while others contribute in-kind resources to conduct meetings and prepare reports. Furthermore, the European Commission, the Organisation for Economic Co-operation and Development, the United Nations Environment Programme as well as the international council for science, the IUCN and the world business council for sustainable development are intergovernmental and non-governmental members of the steering group.

The **secretariat** is located in Paris and provides administrative support,

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[76] https://www.ipbes.net/sites/default/files/downloads/pdf/IPBES_MEP_5_10.pdf.
[77] http://www.resourcepanel.org/the-panel.

including the organization of meetings and communication services. It is part of the sustainable consumption & production branch in the United Nations Environment Programme's economy division.

The International Resource Panel meets twice per year to review work progress, review and approve drafts of assessments, and discuss issues regarding the operations and strategy. The nineteenth meeting of the International Resource Panel, held in Paris in November 2016, agreed on five principles to guide the work of the International Resource Panel: [78]

a) **Policy relevance**: Provide scientific knowledge and science-based policy options in a non-prescriptive manner;
b) **Independence**: Carry out research with impartiality, while steering committee members can provide input to experts to enhance policy relevance;
c) **Inclusiveness**: The composition of the panel, the steering committee and any working groups is balanced with relation to expertise, regional representation, and gender;
d) **Objectivity**: Use best available science and conduct peer review of assessments;
e) **Integrity**: Avoidance of any conflicts of interest of panel members.

Since 2007, the International Resource Panel has published 23 reports on issues such as green technology choices, resource efficiency, global material flows, food systems and land use, decoupling of economic growth from water use and pollution, metal recycling, cities, and the impacts of consumption and production. In line with the strategic plan for 2018 – 2022, which was agreed upon in June 2017, six on-going assessments will be published until 2019, including on mineral resource governance, marine resources, remanufacturing, land restoration, and on cities.[79]

5.5   The Global Environment Outlook

The Global Environment Outlook is a series of major assessments on the state of the environment and often described as the flagship report of the United Nations Environment Programme. It is based on the methodology for integrated environmental assessments and a set of clear guidelines which are evolving over time.[80]

Five full reports have been published so far: GEO-1 in 1997; GEO-2000; GEO-3 in 2002; GEO-4 in 2007; GEO-5 in 2012. Concerning GEO-6, six regional assessments were published in May 2016.[81] For GEO-5, special summary reports were published for youth, for local government, and for business. In addition, the United Nations Environment Programme recently published the global gender and environment outlook in 2016 and the GEO small island developing states outlook in 2014.

The sixth Global Environment Outlook process is currently underway and bears the title "Healthy planet, healthy people". It was mandated by the United Nations Environment Assembly decision 1/4, launched in October 2014 and is expected to be finalized by early 2019. The sixth Global Environment Outlook puts regions even more to the forefront than previous assessments, and six regional assessments have already been published.[82] Two co-chairs, Joyeeta Gupta and Paul Ekins, are leading the sixth Global Environment Outlook assessment.

The main work is undertaken by writing teams led by a number of coordinating lead authors and lead authors for each sixth Global Environment Outlook section.[83] Review editors manage the review process, while reviewers

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[78] Para 3 a) and b) of the Policies and Procedures of the International Resource Panel; Approved at the Nineteenth Meeting of the International Resource Panel (Paris, 15-18 November 2016)
[79] The International Resource Panel – Strategy 2018-2021; 18 August 2017.
[80] http://www.unep.org/geo/assessments/training-manual/geo-tools-and-training.
[81] http://web.unep.org/geo/assessments/regional.
[82] http://www.unep.org/geo/assessments/regional.
[83] http://www.unep.org/geo/lead-authors and http://www.unep.org/geo/coordinating-lead-authors.

conduct the actual peer review to assure scientific integrity. These processes are supported by a number of bodies: several collaborating centres partnering with the United Nations Environment Programme[84]; a scientific advisory panel of 22 members who are guiding the assessment process to make sure that the scientific quality is upheld. However, the role of collaborating centres is much smaller than it used to be. The secretariat manages most of the processes (e.g. review, citations/references, graphics, maps, etc.). A high level intergovernmental and stakeholder advisory group, which brings together five representatives from each of the UN regions as well as five stakeholder representatives, provides guidance throughout the assessment process, including specifically for the summary for policy makers, and is supposed to boost outreach efforts. The assessment methodologies, data and information working group has the task "to provide guidance on assessment methodologies and to guide the overall quality assurance of data and information flows".[85] Furthermore, an interagency global environment network support group bringing together up to 30 experts from UN agencies, funds and programmes is supposed to provide technical support, facilitate information exchange, and make sure that there are no duplications with ongoing assessment processes.

The selection of experts for the sixth Global Environment Outlook and its various roles and bodies followed a call to member states and other stakeholders to nominate individuals through an online nomination portal, including their profile and CV.[86] Nominations had to be made for specific roles in the process, e.g. as (coordinating) lead author, member of the high level intergovernmental and stakeholder advisory group or moderator for the communities of practice used to facilitate discussion and information exchange.

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[84] http://www.unep.org/geo/sites/unep.org.geo/files/documents/Collaborating_Centres.pdf.

[85] http://www.unep.org/geo/assessment-methodologies-data-and-information-working-group-amg.

[86] http://www.unep.org/geo/sites/unep.org.geo/files/documents/Nomination_Criteria_for_GEO-6_experts.pdf.

6. SUMMARY

This section provides a general summary of some of the insights, challenges and lessons learned from undertaking this review.

Setting clear targets and setting strategic direction

Successful governance models require a clear statement of objective (not all the models have this explicitly), clear over-arching responsibility (all have this, either as the Conference of the Parties or General Assembly), clearly identified obligations for the parties/member states/stakeholders, a Bureau that is representative of the stakeholders/parties on an equal basis and performance evaluation (based on reporting and/or other indicators).

The Global Compact built on existing international instruments to define, in 2004, a set of ten core principles that guide efforts.[87] The Global Compact principles not only take into account labour and anti-corruption principles, but also human rights and environmental principles. The Global Compact thus answers to the three components of sustainability (social, economic and environmental). Such a comprehensive set of principles could also be considered for the sound management of chemicals and waste.

The 2010 Aichi biodiversity targets provide an interesting example for the sound management of chemicals and waste beyond 2020. This method of adopting measurable targets, which forms a strategic plan to ensure proper implementation of an overall goal is one that could be similarly adopted for chemicals and waste with their own set of goals. This would assist in creating a clear plan of action with measurable targets for a time-bound goal across chemicals and waste relevant initiatives.

Leveraging the 2030 Agenda for sustainable development

In 2015, all UN States Members adopted the Agenda 2030 for Sustainable Development and its 17 sustainable development goals. This Agenda is a plan of action for people, planet and prosperity. Three sustainable development goals specifically mention chemicals (3.9; 6.3; and 12.4).[88] The interlinkages and integrated nature of the sustainable development goals are an entry point to connect existing efforts to address the sound management of chemicals and waste and to improve the lives of all.

Reviewing mechanisms

Different types of reporting and review mechanisms can support good governance. For instance, some focus on outcome such as the Montreal Protocol reporting on ozone depleting substances phased out, and others on activity such as the national implementation plans prepared and regulations introduced.

The UNFCCC governing model has an impressive compliance rate (100% for annex 1 parties) with the reporting obligation. A key element regarding compliance with the reporting obligation could be the consensus among stakeholders to tackle the issue of climate change.

The International Health Regulations, since 2016, provide for a very comprehensive reporting system, taking into account after-action reviews, exercises and a joint external evaluation.[89]

Communication and outreach on the sound management of chemicals and waste

Current Strategic Approach secretariat functions linked to promoting information exchange and providing clearing-house services have been chronically under-resourced.

The Tobacco Convention has established an interesting model of outreach with the six knowledge hubs established across the WHO regions responsible to disseminate information to parties on various scientific, technical and legal matters that would assist in the implementation of the Convention.

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[87] https://www.unglobalcompact.org/about/governance.
[88] https://sustainabledevelopment.un.org/post2015/transformingourworld.
[89] http://apps.who.int/gho/tableau-public/tpc-frame.jsp?id=1100.

Approach to capacity-building

The Basel and Stockholm Conventions have also established a number of regional and subregional centres under both conventions to provide technical assistance, capacity building and to promote the transfer of technology to parties that are developing countries or countries with economies in transition in order to enable them to implement their obligations under these conventions. There are a total of 23 regional centres of which 14 are Basel Convention regional centres and 16 are Stockholm Convention regional centres.[90]

Adequate resourcing

Maintaining a base level of financing for Strategic Approach implementation activities has remained a challenge, particularly due to the Strategic Approach's voluntary nature.

The Global Compact has structured funding models that rely on both government and corporate funding, creating separate funds to ensure that initiatives remain autonomous.

The possibility of quantifying in-kind contributions may also be explored, such as in the context of science/social interface (see the Platform/IPCC) or staffing support (see the Global Compact).

Incorporating science into decision-making

Many of the models, have acknowledged the importance of the science-policy interface and have established scientific working groups and panels that advise policy makers.

Ramsar's culture network is an example of integration of social science into decision making. Strong participation from developing countries is critical. The importance of incorporating science in decision-making can be seen through the Platform, which was created for the sole purpose of having a science-policy interface. As a general trend, it seems local communities, in particular indigenous communities, are taken more and more into account in international governance models, as can be shown with the Platform.

The scientific body, whatever it is, ought to be credible, its mandate being clearly defined, its composition open to all the stakeholders, and a clear relationship to the overarching governance. Funding to so support its operation will be crucial to its being balanced and fully participatory.

Building on existing structures and approaches

Overall, the beyond 2020 platform should learn from other efforts in the international arena.

The intersessional process provides the opportunity to consider how to connect and link to existing governance models and their relevant governing bodies that deal with the sound management of chemicals and waste. This could help promote overall engagement and limit overlap and duplication of efforts, including in particular in areas such as reporting.

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[90]http://www.brsmeas.org/Implementation/TechnicalAssistance(archived)/RegionalCentres/tabid/2636 /language/en-US/Default.aspx.

APPENDICES

Appendix 1   Background of the Strategic Approach

Since its adoption in 2006, the Strategic Approach, a multi-stakeholder and multi-sectorial framework, has created a pro-active, inclusive and overarching platform for engagement and commitment of governments, inter-governmental organizations, non-governmental organization and industry.

It is an international voluntary and non-binding approach that includes the promotion and implementation of existing global, legally binding agreements. The following table sets out the operations and functions of the Strategic Approach.

NATURE AND FUNCTION OF INITIATIVE	The Strategic Approach is a policy framework with its overall objective being the achievement of the sound management of chemicals throughout their lifecycle. The overall aim is to ensure that by 2020 chemicals are produced and used in ways that minimize significant adverse impacts on human health and the environment.
GOVERNANCE APPROACH	Meeting every three years, the International Conference on Chemicals Management (ICCM) is responsible for guiding global efforts to meet the Strategic Approach 2020 goal and its multistakeholder and multi-sectorial nature has enabled representatives of governments, civil society, industry and a range of international organizations to contribute to this effort. The Bureau advises the ICCM president and the secretariat on the conduct of the business of the Conference and its subsidiary bodies. The Bureau is comprised of one government representative per the five UN regions. Consistent with the multi-sectorial character of the Strategic Approach, four representatives of non-governmental participants (health, industry, trade union, and public interest groups) and the chair of the IOMC also participate in Bureau meetings. In addition, the president of the Bureau invites the five regional focal points to participate in the Bureau meetings. There is an open-ended working group that is responsible to consider the implementation, development and enhancement of the Strategic Approach. At the regional level, multi-stakeholder regional meetings are held on a periodic basis supporting efforts of common priority. Many of the regions have established regional coordination mechanisms.
MONITORING AND REPORTING MECHANISMS	ICCM2 agreed to 20 indicators of progress that are used by the secretariat in fulfilling its function of developing periodic reviews on the Strategic Approach implementation. For the 2009–2010 period, a total of 124 stakeholders submitted information electronically to the secretariat: 108 submissions were complete and formed the basis for analysis, with 78 from governments (there are now 175 focal points), 11 from intergovernmental organizations and 19 from non-governmental organizations, including the private sector. For the 2011–2013 period, a total of 127 stakeholders registered electronically to the secretariat: 102 submissions formed the basis for analysis. While current Strategic Approach reporting mechanisms are useful in assessing progress toward the 2020 goal, they cannot fully capture overall progress, or provide an adequate basis for assessing remaining needs and prioritizing future actions (SAICM/OEWG.2/INF/2). The secretariat has been requested to develop an analysis of the 20 indicators of progress for consideration at the Strategic Approach third open-ended working group in ICCM resolution IV/1.
PROMOTING INFORMATION EXCHANGE	Knowledge and information is one of the five overarching policy strategy objectives within the Strategic Approach. Regional meetings and the 2009-10 report on progress confirmed that while the Strategic Approach has made some progress in developing and exchanging knowledge and information, including the use of regional meetings and workshops to disseminate information, progress has been slow and several needs in this area remain to be addressed (SAICM/OEWG.2/INF/2). The absence of a clearing-house has major implications for and impacts on mainstreaming, implementation and capacity building efforts (SAICM/OEWG.2/INF/2).

APPROACH TO CAPACITY BUILDING AT NATIONAL, REGIONAL AND SUB REGIONAL LEVELS	Capacity-building and technical cooperation is identified as one of the five overarching policy strategy objectives within the Strategic Approach. The two main initiatives that contributed to the Strategic Approach capacity building results are: (i) the Quick Start Programme, which was specifically designed to support initial enabling, capacity-building and implementation activities, contributed substantially to building and strengthening capacity in developing countries through 168 projects in 104 countries; and (ii) regional awareness raising workshops which were organized in the context of the Strategic Approach regional meetings (SAICM/OEWG.2/INF/2). The following strategic priorities were established for the quick start programme trust fund: (A.) developing or updating national chemical profiles and identifying capacity needs for sound chemicals management; (B.) developing and strengthening national chemicals management institutions, plans, programmes and activities to implement the Strategic Approach; and (C.) undertaking analysis, inter-agency coordination, and public participation activities directed at enabling the implementation of the Strategic Approach by integrating the sound management of chemicals in national strategies, and thereby informing development assistance cooperation.
RESOURCING: THE PLATFORM, THE SECRETARIAT AND ITS GOVERNANCE STRUCTURES	UN Environment has overall administrative responsibility for the Strategic Approach secretariat, which is located within its Economy Division. The annual indicative budget for the Strategic Approach secretariat, including the hosting of meetings, ranges from 1.8 - 3.0 million USD annually for the 2016-2020 period. These resources are provided on a voluntary basis from Strategic Approach stakeholders. As part of this, the Strategic Approach secretariat actively undertakes fundraising efforts.
ACTION ON EMERGING POLICY ISSUES	One of the functions of the ICCM as identified in the Strategic Approach overarching policy strategy (paragraph 24.j) is to call for appropriate action on emerging policy issues as they arise and to forge consensus on priorities for cooperative action. A formal process has been developed and applied to incorporate emerging policy issues into the Strategic Approach process. An open and transparent procedure is set out in annex to ICCM resolution II/4 which explains the procedures to be followed in receiving nominations for emerging policy issues and preparing them for future consideration by the Conference. The Strategic Approach independent evaluation for 2006-2015 will present information with respect to identifying and taking action on new or emerging issues.
OTHER OBSERVATIONS	The concept of an intergovernmental forum to address chemical safety originated during preparations for the 1992 United Nations Conference on Environment and Development[91]. In April of 1994 the intergovernmental forum on chemical safety was created by the international conference on chemical safety. The intergovernmental forum on chemical safety was a mechanism for cooperation among governments for promotion of chemical risk assessment and the environmentally sound management of chemicals[92]. It was a non-institutional arrangement, whereby government representatives met with intergovernmental and non-governmental organizations with the aim to integrate and consolidate national and international efforts to promote chemical safety. Intergovernmental and non-governmental organizations participated without the right to vote.

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[91] The United Nations Conference on Environment and Development, also known as the Rio de Janeiro Earth Summit , Rio Summit, Rio Conference, and Earth Summit, was a major United Nations conference held in Rio de Janeiro from 3 to 14 June 1992.
[92] ISSD *A Brief Introduction to the Intergovernmental Forum on Chemical Safety* http://www.iisd.ca/process/chemical_management-ifcsintro.html.

Appendix 2   Acknowledgments

The Strategic Approach secretariat reached out to the following organizations in the development of this document:

Basel, Rotterdam and Stockholm (BRS) Conventions
Minamata Convention on mercury
Montreal Protocol on substances that deplete the ozone layer
World Health Organization (WHO)
International Labour Organization (ILO) Conventions
Convention on Biological Diversity
Convention on Wetlands (Ramsar Convention)
United Nations Framework Convention on Climate Change (UNFCCC)
United Nations Global Compact (Global Compact)
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (the Platform)
Organisation for Economic Co-operation and Development (*OECD*)

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Dr. Nils Simon, Senior project manager at Adelphi

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