UNEP, International Environmental Governance, and the 2030 Sustainable Development Agenda

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Section 1. Overview of Global Environmental Governance Framework

In less than a decade, the playing field in which global environmental governance occurs has changed significantly. Among these changes are the creation of new institutional structures, the widespread adoption of strategic management practices, the development of new targets and indicators to gauge progress, the launch of an array of new efforts to realize synergies throughout the UN system, and new capabilities and approaches to cultivating knowledge. Rather than a completed project, these developments need to be seen as building the foundations for longer term improvements in the coherence and effectiveness of the international environmental governance system. As this paper describes, UNEP has played a major role in these developments.

Together these developments provide the basis for a transformative global environmental governance system that can effect tangible long term progress towards improving the environment worldwide. In many cases these developments have yet to realize their full potential. For that potential to be realized, a great deal of additional work is required for which UNEP's experience and expertise will enable it to play a leading role.

Among the institutional structures that have emerged are the High Level Political Forum (HLFP) and the United Nations Environment Assembly (UNEA) both of which were provided for in the Rio + 20 outcome document, "The future we want" and subsequent General Assembly resolution. These developments were initiated by UN member states to provide the foundations for the ambitious post-2015 development agenda. The HLPF replaced the prior Commission for Sustainable Development and is tasked with monitoring the implementation of the 2030 Sustainable Development Agenda (2030 Agenda) and Sustainable Development Goals (SDGs). UNEA replaced the former UNEP governing body (the Governing Council) composed of 58 member states, with a new governing body with universal membership. Contemporaneous with these developments, UN member states have underlined and confirmed the role of UNEP as the leading global environmental authority that sets the international environmental agenda.

To support a larger strategic approach to managing global environmental institutions, UN member states have adopted a range of indicators and targets against which performance is monitored and assessed. Among these metrics, the SDGs are perhaps most visible. In contrast to the Millennium Development Goals, which had little direct relevance to the environmental sector, more than half of the SDGs address environmental concerns (89 out of 169 targets). In addition to providing strong commitments to the environment, the SDGs also have situated the environmental dimension of sustainable development in the context of a much broader set of issues. Similarly, among UN entities and multilateral environmental

agreements (MEAs) with strategic plans, indicator frameworks are increasingly used to measure results. In addition, the application of the targets and indicators among international environmental institutions is driving greater standardization and interoperability of data regarding environmental matters.

Similar trends are evident at the national level. Efforts by the UN Development Group to refine the Delivering as One framework to support the 2030 Agenda and SDGs implementation through the development of standard operating procedures are important new developments to fostering synergies among UN entities.

At the same time, these positive measures need to be viewed in the context of the grave state of the global environment. UNEP publications have consistently documented the deterioration of the global environment. It is difficult to know the counterfactual—what would have happened in the absence of existing international environmental governance institutions and law—but it is difficult to argue that results have been adequate. Should dramatic improvements in the effectiveness of international environmental governance and international environmental law not occur, within a few decades conditions may become irreparable across many different areas.

Against this backdrop, this paper will explore the role of UNEP/UNEA in international environmental governance at the global and national levels, giving particular attention to the 2030 Agenda. The issues and themes described in this report follow the developments in international environmental governance in the Rio + 20 outcome document and subsequent General Assembly resolution. This paper also benefited from the comments of expert participants in a workshop on "Achieving environmental sustainability for sustainable development" organized by UNEP on 21-22 July 2016 in New York. Following this overview, Section 2 continues at the global level and reviews the role of UNEP in the sustainable development agenda. In Section 3 it considers the role of UNEA/UNEP in the environmental governance landscape vis-a-vis other actors, and in Section 4 it examines opportunities and challenges in light of these different stakeholders. Next in Section 5 it will look into national level applications of these arrangements, particularly through pilots of the SDGs and examining the national level governance systems needed to deliver on the environmental dimension of the SDG. In Section 6, it will offer recommendations and suggestions on the future of global environmental governance and the role of UNEP/UNEA.

Section 2. UNEP's Role in Sustainable Development and Sustainable Development Goals

The question of UNEP's role in the SDGs and 2030 Agenda is explored in a recent report of the UNEP Executive Director to UNEA. As noted above, more than half of the SDGs have an environmental dimension. At the same time, the SDGs cut across the environmental, social, and economic dimensions of sustainable development. Hence, on one level it is necessary to distinguish the environmental dimension from the other dimensions of sustainable development, yet on another level there is a need to deal with the issues in a comprehensive fashion. From the standpoint of environmental law and policy this development is a double-edged sword. From one perspective, it will help facilitate the integration of environmental matters within these broader frameworks, while from another angle, it risks watering down the environmental concerns.

UNEP's long experience and expertise in environmental matters particularly in international environmental governance is a key comparative advantage that can support the process overall; however, efforts must be made to clarify the institutional boundaries and modalities for its work in the context of the integrated economic-social-environmental approach of the 2030 Agenda. Within this broad sustainable development context, UNEP can and should play a central role in contributing to the environmental dimension of the 2030 Agenda by supporting the HLPF and ensuring the coherence, efficiency, effectiveness, and inclusiveness of UN activities on the environment at the global and national levels.

The mandate for UNEP's role in the 2030 Agenda is elaborated in resolution 2/5 "Delivering on the 2030 Agenda for Sustainable Development", adopted by the second session of UNEA in May 2016 and General Assembly resolution 71/231 adopted in December 2016, which set forth the UNEA relationship with the HLPF. Among matters identified, resolution 2/5 cites UNEP's role in coherent implementation of the environmental dimension of sustainable development taking into account the recommendations of the HLPF, its role as secretariat of the Ten-year framework of programs on sustainable consumption and production patterns, fostering partnerships and other means of cooperation with UN bodies, and engaging with regional coordination mechanisms.

As recognized in the General Assembly Resolution, UNEP can act as a point of communication between the UN Environment Management Group and HLPF. UNEP can also help bring a unified voice on the environmental dimension of sustainable development to the HLPF. Such efforts have already begun through the submission of a detailed report to the HLPF on the outcomes from UNEA and UNEP's contribution to the 2030 Agenda, which will be repeated in 2017.

UNEP's role as chair of the Environment Management Group is also fostering coherence and effective cooperation by furthering implementation of environmental strategies, targets, and indicators adopted by the Environment Management Group members. The System-Wide Framework of Strategies on the Environment agreed upon by the Environment Management Group members, endorsed by the Chief Executives Board, and launched at UNEA, was designed to bring about the convergence of individual UN agencies' and MEAs' strategies for different environmental objectives while improving the ability of the UN system collectively to implement the 2030 Agenda. During the initial phase of implementation of the System-Wide Framework of Strategies, efforts were focused on gathering information, but over the coming years attention will shift towards reporting on activities.

Drawing upon experience from the alignment of strategies among the biodiversity-related conventions and the national biodiversity strategies and action plans with the Strategic Plan for Biodiversity, UNEP can help foster coherence by aligning strategies among UN agencies and MEAs towards the 2030 Agenda. These efforts were made possible through a range of support including awareness raising, capacity building, knowledge development, and engagement. As described in Section 5 below, at the national level, UNEP could enhance the integration of environmental matters in the UN Development Assistance Frameworks, while identifying and fostering synergies between MEAs and other norms.

Likewise, UNEP can help align the array of different indicator frameworks employed currently by the Environment Management Group members with the indicators needed to support the 2030 Agenda and SDGs. Initiatives such as the Global Biodiversity Indicator Partnership, developed with leadership from UNEP, can be expanded to support the need for data regarding matters cutting across other environmental sub-sectors such as air pollution, climate change, chemicals, land degradation, as well as other contexts where the environment intersects with other sectors such as health and human rights. UNEP can also identify and realize synergies between the observational and measurement infrastructures used by diverse actors in the environmental field. Through the assistance of UNEP-World Conservation Monitoring Centre, initiatives such as the Group on Earth Observations Biodiversity Observation Network can be broadened to incorporate the observational needs of other environmental sub-sectors.

In addition, contemporaneously with the development of the SDGs, throughout the environmental governance system, new efforts are underway to identify and act upon linkages between the environmental agenda and other fields including, poverty reduction, human rights, rule of law, and democratic principles. The use of environmental impact assessment and strategic environmental assessment, which support participation and access to justice in

environmental matters, illustrate ways governance and environmental concerns can be simultaneously addressed.

Section 3. UNEA/UNEP's Role in Environmental Governance Landscape

The Rio + 20 outcome document, which called for the establishment of the HLPF, simultaneously emphasized and confirmed UNEP's central role in the environmental agenda. Paragraph 88 of the outcome document referred to UNEP as "the leading global environmental authority that sets the global environmental agenda" and "promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system". This affirmation of UNEP's critical role in safeguarding the global environment was further underscored by a reaffirmation of UNEP's mandate in General Assembly Resolution 2997 (XXVII). It is also reflected in UNEA resolution 2/5, "Delivering on the 2030 Agenda for Sustainable Development".

As described more fully below, consistent with these mandates, UNEP has played a significant role in driving and advancing environmental governance in the UN system. UNEP stands as both a coordinator of actors in the environmental sector but also relates the environmental agenda to the broader set of sustainable development priorities. This section reviews what responsibilities have been delegated and what progress has been made.

Governance

As a basis for supporting UNEP's strengthened role in international environmental governance, the member states took steps to enhance its governance. Paragraph 88(a) of the outcome document referred to the need to replace the UNEP Governing Council created by General Assembly resolution 2997 with a body having universal membership and undertake measures to strengthen its governance as well as its responsiveness and accountability to member states. This statement was put into action in General Assembly resolution 67/213 pursuant to which the new Governing Council (subsequently named the UN Environment Assembly (UNEA)) was created. In contrast to the former UNEP Governing Council composed of 58 states, UNEA includes all UN member states.

Implicit in the decision to make UNEP governing body membership universal is a recognition that responsibility for the global environment requires the engagement of all states, not simply a subset. The importance of this decision should not be underestimated. In the UN System, universal governing bodies are seen in the General Assembly, the Economic and Social Council, and the UN specialized agencies. Read together with the affirmation of UNEP's leadership in the environmental sector, the decision to make the UNEP governing body universal was a recognition of the institution's specific subject matter competence.

UNEA has now met twice. In many respects, the first two UNEA meetings held in 23-27 June 2014 and 23-27 May 2016 can be said to have achieved their purposes. A total of 170 member states attended the second meeting, with 123 ministerial-level participants. Preparation for the UNEA-2 meeting was undertaken at the open-ended meeting of the Committee of Permanent Representatives to UNEP at which draft resolutions and the agenda for the UNEA-2 meeting were prepared. At all of the meetings the engagement of member states was substantial and evident. Moreover, the meetings have illustrated the way in which member states were involved in setting the agenda and owning the process. To illustrate this engagement and support, among the outcomes of UNEA-2 was the resolution setting the dates of subsequent meetings. In agreeing on a schedule for biennial meetings, the parties had to adjust the previous meeting calendar. The agreed option was to hold the next meeting in December 2017, approximately 17 months from the second session of the Environment Assembly. Despite differences in opinion between member states about the appropriate date for the next meeting, the parties implicitly affirmed the value of UNEA.

An additional governance change was the creation the HLFP to follow the 2030 Agenda and SDGs. The relationship and modalities for work between UNEP and the HLPF are still under development. Indeed, the second HLPF meeting in July 2016 showed that there is still much work to be done to define and develop this relationship. It is noteworthy that the Ministerial Declaration of the July 2016 session of the HLPF did not include any reference to UNEA, which suggests that the link between UNEA, the HLPF, and the Economic and Social Council needs further action.

In addition to these changes in the institutional structures, there has been a gradual shift in the modalities of international environmental governance over the past decade. A key aspect of this change is the adoption of strategic and results-based management practices throughout international environmental governance institutions. Strategic management has become the norm among UN organizations, departments, and programs in the Environment Management Group including among MEAs. Among the Environment Management Group members, UNEP has played a supporting role in making these individual strategies operational and, as discussed below, the System-Wide Framework of Strategies on the Environment which will align strategies horizontally among the Environment Management Group members.

Coordination

The complexity of the global environmental governance system and lack of any hierarchical authority structure makes coordination of the diverse actors, institutions, and norms critically important. UN member states recognized this importance in adopting the Rio + 20 outcome document. It calls for enhancing both the voice of UNEP and its ability to fulfill its coordination mandate within the UN system by strengthening engagement in key

UN coordination bodies and empowering UNEP to lead efforts to formulate the System-Wide Framework of Strategies on the Environment. UNEP has been supporting a series of initiatives to accomplish this goal.

Key among these initiatives are efforts to facilitate greater synergies between the various institutions and normative instruments participating in international environmental governance. A key example is the System-Wide Framework of Strategies on the Environment. Through its role as chair of the Environment Management Group, UNEP has worked both to shape the environmental agenda and improve synergies within the UN system. The System-Wide Framework of Strategies is a major step in this regard.

The strategy has two main objectives, both of which are intended to promote synergies and coordination between the entities and instruments in the UN system. First, it is intended to enhance cooperation across the UN system on the environment by identifying the steps taken by individual UN organizations to deepen the consistency of their strategies and activities with the 2030 Agenda and by facilitating a structured and timely exchange of relevant knowledge and information. In other words, the effort to promote synergies on the environmental agenda will be made a function of adherence to the 2030 Agenda.

The second objective is to strengthen the capacity and synergies among UN system organizations to enhance integration of the environmental dimension of the 2030 Agenda. To do so, the UN system will draw on experiences of others, exchange knowledge on good policies and practice, leverage research and data systems of UN system entities, and identify new opportunities for cooperation. This objective is primarily about information exchange between UN entities.

Beyond the System-Wide Framework of Strategies on the Environment, which has included major MEAs as the Environment Management Group members, pathbreaking efforts have been made among the parties to MEAs to rationalize and develop synergies among all aspects of treaty activities, most notably in the chemicals and biodiversity domains. These efforts are important developments because the legal autonomy of MEA Conferences of the Parties has led to situations in which decisions taken by these Conferences of the Parties have on occasion contradicted those taken by UNEA due to lack of prior coordination and communication.

One leading example of how greater coherence and synergies can be fostered by and among MEAs is the so-called "synergies process" involving the Basel Convention, Rotterdam Convention, and Stockholm Convention. The approach of these chemicals and wastes treaties involves the merger of administrative, financial, and institutional functions and greater programmatic collaboration.

Likewise, synergistic efforts among the biodiversity-related conventions have been considerable. Experience with the Strategic Plan for Biodiversity (Convention on Biological Diversity Strategy) and Aichi Targets provides a different model for realizing synergies. Instead of combining functions of multiple instruments, each biodiversity-related convention maintains its separate structure. The Convention on Biological Diversity Strategy adopted by the Conference of the Parties to the Convention provides an overall framework for strategies in the sector and linkages between treaties. The other biodiversity-related treaties have taken steps to align their individual strategic plans with the Convention on Biological Diversity Strategy.

UNEP has played an important part in facilitating these processes by providing expertise, convening actors, and sharing information and knowledge. Nevertheless, there are critical limitations to what UNEP can accomplish. The first is that there are two sets of MEAs: those that are linked directly with the UN Secretariat and those that are administered by UNEP. The former conventions include the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD).

For both types of MEAs, UNEP's role is limited in important respects. For the MEAs that are linked to the UN Secretariat, UNEP has no direct governance role. Among those with which UNEP has a memorandum of understanding arrangement, it is unable to direct decisions or exercise any management control. At best UNEP's influence over the MEAs is indirect.

Nevertheless, there are continuing efforts to enable UNEP to help bring about greater synergies. In advance of UNEA-2, the Executive Director submitted a report to UNEA, which reflected the outcome of a series of discussions between UNEP and the secretariats of a number of MEAs. The report described approaches to cooperation between UNEP and the MEAs particularly in the areas of administrative arrangements and programmatic work. The resolution adopted by the parties did not significantly advance efforts to cultivate synergies between the MEAs.

Science-policy interface

UNEP also has a role in supporting efforts to bridge the scientific and policy communities. In the Rio+20 outcome document, the member states recognized the need to promote a strong science-policy interface, building on existing international instruments, assessments, plans and information networks, including the Global Environment Outlook, as one of the processes aimed at bringing together information and assessments to support informed decision making. UNEA has voiced its support for increasing this type of activity. UNEA resolution 2/5 recognized the important role of UNEP in the follow up and review of progress on sustainable development, including developing policy-relevant information,

continuing to develop indicators to support such monitoring, gathering data from a wide range of sources, and collaborating with relevant UN bodies, such as the International Resource Panel and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

Consistent with this guidance, UNEP has given increasing emphasis to the science-policy interface in its work and in the environmental sector generally. A key enabler of this effort is access to much greater amounts of data on global environmental concerns. Across all areas of international environmental governance, technology is enabling vastly greater scope and precision in monitoring and assessing environmental conditions. From earth observational satellites and remote sensing devices to citizen scientists wielding smart phones and local and indigenous communities making direct observations, large amounts of data and knowledge are being generated on the environment across a range of sectors. Informatics, networks, and communications technologies are facilitating the sharing of information by large dispersed groups of researchers and other actors, while computing power, data science, and machine learning enable greater throughput and faster processing.

UNEP has played an important role in supporting these activities through cooperation with other UN agencies in the Environment Management Group and MEA Secretariats. In addition, UNEP's initiatives such as the UNEP-World Conservation Monitoring Centre, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Global Biodiversity Informatics Facility, and Global Biodiversity Indicators Partnership have been critical to building institutions and infrastructure to gather and distribute scientific data. UNEP is also a member of the Group on Earth Observations Biodiversity Observation Network, a collaboration involving space agencies and observatories that collect and share data on biodiversity. Together these capabilities are important to solving environmental challenges and UNEP's role in supporting, disseminating, and acting upon this knowledge represents a key comparative advantage.

UNEP is also uniquely placed to facilitate sharing of evidence-based environmental information to audiences beyond specialist communities and thereby raise public awareness on critical as well as emerging environmental issues. Research that UNEP has supported and resulting data has fed into comprehensive reports — such as the Global Sustainable Development Report, Global Environment Outlook, Global Biodiversity Outlook, and Intergovernmental Panel on Climate Change reports— that provide regular information for policy makers on global environmental conditions and progress.

While UNEP-supported initiatives have generated compelling scientific evidence on key environmental challenges, its ability to raise awareness among broader segments of the public appears less effective. Positive steps include improvements to the UNEP website and the creation of a functional and attractive website for UNEA. Innovations such as InfoMEA and UNEP Live are facilitating access to technical information. The UNEP Executive

Directors have played an important role as visible advocates for UNEP. Yet the impact of these efforts on wider public awareness appears less compelling.

Geographical presence

Paragraph 88(g) of the Rio+20 outcome document calls for the progressive consolidation of headquarters functions to Nairobi as well as strengthening its regional presence to assist countries upon request in the implementation of their national environmental policies, collaborating closely with other relevant entities in the UN system. As part of headquarter consolidation, the seat of the Director of the Division of Economy (formerly Division of Technology, Industry and Economics), which used to be located in Paris, has been moved to Nairobi. Among the efforts to improve the regional presence has been the recruitment of managers for each of UNEP's subprogrammes in the regional office as well as the opening of subregional offices, including in Almaty in Kazakhstan and Apia in Samoa. Likewise, the development of regional environmental ministerial forums with UNEP support is an important step, which can also contribute to a voice for regions in UNEA.

Stakeholder engagement

UNEP can facilitate the active participation of all relevant stakeholders by drawing on best practices and models from relevant multilateral institutions and exploring new mechanisms to promote transparency and the effective engagement of civil society.

While civil society organizations have cooperated with UNEP for many years, UNEP has also made significant efforts to engage with the private sector, most notably through the UNEP Finance Initiative. In addition, approximately 230 private sector representatives and 400 major groups and stakeholders representatives attended the UNEA-2 meeting. The creation of the Innovation Tent at UNEA-2 was a basis for engaging the private sector in seeking to address environmental challenges as well as leveraging private sector resources and expertise towards resolving those challenges.

Summary

Viewed from a recent historical perspective of only ten years ago, the developments described here have effected significant changes in international environmental governance. Together they provide the building blocks for a transformative global environmental governance system that can effect tangible long term progress towards improving the global environment. In many cases these developments have yet to realize their full potential. For that potential to be realized, a great deal of additional work is required for which UNEP's experience and expertise will enable it to play a leading role.

Section 4. Opportunities and Challenges for Strengthening UNEP's Role

While much progress has been made in putting new strategies, synergistic and collaborative mechanisms, and targets, indicators, and results frameworks in place, these efforts are fragmented and unsystematic. In this context, UNEP has an important role to play in rationalizing the systems that different actors are using and in developing knowledge about good practices that can generate more standardized approaches that can support interoperability of diverse environmental programs and institutions. The following describes key opportunities and challenges to enhancing international environmental governance particularly by strengthening UNEP's role.

Leadership

Despite the strong statements about UNEP's leadership role in international environmental governance made in the Rio + 20 outcome document, there are a number of factors that complicate the matter. At a basic level, there are inconsistencies and tensions in the Rio + 20 mandate. First, there is a degree of equivocation in the role of UNEP as leading the environmental dimension of sustainable development versus the autonomy of other UN entities with mandates relevant to the environment. Second, the 2030 Agenda makes the picture of the leadership role of UNEP more difficult because the environmental dimension of sustainable development is integrated with the social and economic dimensions, which lie outside of UNEP's recognized competence. Together these factors require a nuanced understanding of UNEP's leadership role in international environmental governance.

UNEP's mandate to lead the global environmental agenda and serve as the leading voice on the environment cannot be understood in a hierarchical sense. This interpretation is evident given that immediately after affirming UNEP's leadership role, the member states referred to the need for it to also play a coordinating role within the UN system. It is a form of leadership befitting networked governance in which UNEP brings dispersed stakeholders together to build consensus and collaborate, rather than directing or coercing actors' behavior. In governance terms, this is anything but a principal-agent arrangement. In this type of arrangement, commitments are not enforceable per se. The model is akin to relational contracting, whereby participants work together towards shared goals and opportunism is controlled through common norms, reciprocity, and cooperation rather than top-down direction or sanction.

The second and more substantive conundrum arises from the 2030 Agenda itself. The critical issue is the integrated nature of the 2030 Agenda and the SDGs. Notwithstanding the member states' affirmation of UNEP's leadership role on the global environment, the SDGs and the 2030 Agenda take a broad view of sustainable development in which the environmental dimension is integrated with economic development, poverty reduction, human

rights, and social development. While there is an environmental dimension to 89 of 169 SDGs, dissociating the environmental dimension of sustainable development from the other dimensions of sustainable development is not straightforward. So here too UNEP's leadership role is subject to a wider set of actors, institutions, and norms. Understanding how to carry out this responsibility in practical terms will be challenging, not least because of inevitable differences in interpreting institutional boundaries and competencies.

The architecture created to support the 2030 Agenda, particularly the HLPF, will require UNEP to apply its leadership in new ways. UNEP's long experience and expertise in environmental matters is a key comparative advantage that can support the process overall, however, efforts must be made to clarify the institutional boundaries and modalities of work. Within this broad sustainable development context, UNEP can play a central role in contributing to the environmental dimension of the 2030 Agenda and stressing its crosscutting nature by supporting the HLPF and ensuring the coherence, efficiency, effectiveness, and inclusiveness of UN activities on the environment at the global and national levels.

Governance

The creation of UNEA represents both an opportunity and a challenge for UNEP. Chief among the opportunities is the fact that UNEA constitutes a more authoritative governing body for global environmental governance. The universal membership of UNEA is a key source of this strength.

Despite UNEA's evident authority, there are numerous challenges that may limit its effectiveness. First, despite the desire of some parties to attract member state representatives with specific expertise in environmental matters, significant numbers of attendees at UNEA have been drawn from foreign ministries. Indeed, it seems that, somewhat ironically, some member states have concluded that because UNEA represents a higher level political body, they should be represented by foreign ministry officials, not environmental ministries. If accurate, this situation may detract from the expertise available in the meetings.

Likewise, in what may be considered a sign of the seriousness with which member states viewed the meetings, many appeared to arrive with positions pre-agreed in their capitals rather than use the meetings as an occasion for deliberation. Yet among a significant number of other states the opposite issue was evident. Rather than having pre-agreed positions, certain delegations arrived unprepared to discuss matters. This result is particularly surprising given the extensive work done during the intercessional period by the Committee of Permanent Representatives to prepare for the meeting.

A second challenge is how to conduct UNEA meetings in an efficient manner. If not managed tightly, given the complex nature of global environmental governance, there is a strong likelihood that meeting agendas will grow. As the agenda size increases, the level of

deliberation may suffer and the resulting decisions may decline in quality. Ultimately, this situation may weaken the implementation of UNEA decisions. In addition, the cumbersome nature of the governance process may make it more difficult to respond rapidly to immanent challenges. Finally, fairly or not, some delegations expressed frustration over the amount of time available for the meetings and deliberations. There were several instances in which misunderstandings about the procedures arose, which slowed deliberations.

A third challenge is that as the participation becomes more political and less technical, the meetings may deviate from environmental focus towards larger political concerns. This risk grows as participation becomes driven more by Foreign Ministries as opposed to Environmental or Natural Resource Ministries. While too early to judge with certainty, the failure of the parties to agree an outcome document at UNEA-2 could be interpreted as a reflection of increasing politicization of the forum.

Finance

Achieving the aims of global environmental governance will require significant resources. The Rio + 20 outcome document calls for secure, stable, adequate, and increased financial resources from regular budgets of the UN and voluntary contributions to fulfill its mandate. Failure to achieve this goal will affect UNEP's ability to deliver. Yet securing those resources is a critical challenge that historical experience suggests will not be easy to accomplish.

An overriding challenge is that budgets among donor countries remain stretched with little "fiscal space" available to undertake discretionary spending. Economic growth has been and is projected to be modest among major donors, further constraining fiscal resources. Among the largest UN donors, there is even the prospect of significant cuts in funding. There is no guarantee that other bilateral donors will step up to fill any funding gaps caused by any donor cuts.

Even if resources are made available, among multilateral institutions, environmental causes have historically tended not to be among the best resourced. This situation may only be more problematic given the scope of the funding needs today, notably resulting from climate change. In contrast to relative donor reluctance to support environmental causes, humanitarian emergencies have traditionally been better financed. Given that humanitarian funding needs are at historic highs, it is likely that in the medium term, donor fatigue may inhibit financing for environmental causes, particularly non-climate related purposes.

Despite pledges of increased financial support for climate change adaptation and mitigation, it is unclear whether these resources will be forthcoming. Moreover, even if they are paid, there is a risk that, contrary to member states' professed commitment to ensure climate finance is additional to existing multilateral development support, donors may decide

to reduce funding for other environmental matters in favor of climate change related purposes. The result could be that important environmental policy and legal commitments may be neglected.

The issue of differing levels of support for climate change versus other environmental matters highlights an important administrative challenge to meeting the financial needs of UNEP. First, the integrated nature of the SDGs framework may make it difficult to attribute financing for individual SDGs to environmental purposes. While some progress has been made with respect to uniform accounting standards in the UN system, the fragmented nature of the environmental sector — exemplified by the 48 Environment Management Group members each of whom has direct environmental responsibilities — makes it difficult to obtain accurate figures on aggregate environmental funding. This situation may obscure the question of whether overall funding has increased.

Understanding the amount of resources needed is extremely difficult. On one hand are the MEAs including the Convention on Biological Diversity, the UN Framework Convention on Climate Change, chemicals treaties, and the UN Convention to Combat Desertification, which receive substantial resources that are dedicated to environmental purposes. On the other hand are those Environment Management Group members for which the environment is only a part of their portfolios and strategies. To understand fully the resources needed, specific figures on funding for the environment must be made available in a form that allows comparative analysis.

A second issue is that from the data that do exist, it is clear that among the Environment Management Group members there are vastly different levels of resources available for environmental matters. This situation is palpable with respect to the MEAs. While differences in resources available for different treaties may have been the result of contingencies or unintended consequences, the ongoing disparities are long term phenomena.

A major example is the unequal availability of resources under the Global Environment Facility. A select number of MEAs can draw upon the Global Environment Facility as a financing facility for the incremental costs associated with activities undertaken at the national level that have global environmental benefits. The fact that the Global Environment Facility was created in close proximity to the 1992 Rio Conference can explain to some degree why the Convention on Biological Diversity and the UN Framework Convention on Climate Change have access to it. Temporal proximity may also explain the logic of making the Global Environment Facility the financing facility for the UN Convention to Combat Desertification, signed only two years later. Yet after this point, the reasons are less clear. Although the Stockholm Convention, which was signed in 2001, has access to the Global Environment Facility, the other main chemicals and wastes treaties currently in force—the Basel Convention and Rotterdam Convention—do not. Further complicating the

picture is the decision by the Global Environment Facility's Governing Council to enable it to finance projects under the Minimata Convention on Mercury (not yet force).

Illustrating the challenges that MEAs confront, to address the financing needs of the chemicals and wastes conventions, UNEP undertook a major effort to identify the sources of financing available. The Executive Director's strategy for financing the chemicals and wastes conventions, the Special Programme for Institutional Strengthening of Chemicals and Wastes, was innovative in seeking to turn over every stone in gathering financing. It represented an effort to make the best of a difficult task. Yet it has not resolved the underlying inconsistency between the financing available for the different agreements.

Similar inconsistencies are evident in the biodiversity field. Although the Convention on Biological Diversity has access to the Global Environment Facility financing, the other five biodiversity related conventions have only indirect access. They may obtain Global Environment Facility financing for projects that are consistent with the Convention on Biological Diversity Strategic Plan for Biodiversity. Although UNEA resolutions have underscored the autonomy of different MEAs, this arrangement implicitly elevates the Convention on Biological Diversity to a position as gatekeeper to the other biodiversity related conventions' financing.

At the same time, the 2030 Agenda and SDGs afford some opportunities to garner new resources for global environmental purposes. For one, the integrated nature of the SDGs may draw resources for environmental purposes that might not otherwise have been provided. UNEP has been somewhat successful in seeking additional budgetary resources. In recent years, UNEP was given an allocation from the UN regular budget, which supported approximately 80 staff positions.

A further source of financing for the environment can come from the private sector. As seen in connection with climate change mitigation activities in particular, private enterprise can help by creating new markets for products, such as alternative energy, that support environmental goals. Purchases of those products contribute to achieving environmental goals.

Coordination and engagement

UNEP's environmental mandate gives it the opportunity to support better coordination and realize synergies in the environmental sector. A starting point for these efforts is to build coordination structures within the UN. The System-Wide Framework of Strategies on the Environment and other strategic approaches among MEAs are most noteworthy. Yet these initiatives may be insufficient to generate strong collaboration and synergies among the actors.

Efforts to develop synergies between the MEAs illustrate the role of UNEP in fostering synergies between the MEAs and UNEP but also between the MEAs themselves. There are numerous limitations to these efforts.

First, despite significant progress by the Conference of the Parties to the MEAs to build synergies between the MEAs in particular sub-sectors such as biodiversity and chemicals, these efforts have been primarily focused on MEAs within those sub-sectors. Largely missing from these efforts have been approaches to building synergies between different sub-sectors. Experience thus far suggests that even if these synergistic efforts were to achieve their aims of creating coherence and synergies in biodiversity or chemicals and wastes, for instance, they would still fall short in addressing coherence with other environmental sub-sectors. Relationships between fields such as chemicals and water, climate, land, and biodiversity require leadership from actors that bridge these fields. Even less attention has been devoted to coordination and collaboration between MEAs in the environmental sector to multilateral treaties in sectors outside of the environment such as health or human rights.

Second, these coordination efforts have been limited to a small number of more influential instruments. The engagement of nine MEAs in the Environment Management Group, while a positive step, excludes many other multilateral and regional agreements.

National level coordination.

There are a number of reasons to believe that UNEP can take steps to improve synergies between its work on environmental law and policy at the national level. A widely recognized challenge is the lack of coordination within national governments. In many areas authority over environmental activities is split between different actors and institutions. Even within the same sector, such as biodiversity, there is a lack of coordination. National actors sometimes do not interact with relevant focal points in the same sector and opportunities for synergies between different areas such as climate change and biodiversity are not pursued because of a lack of interaction of the actors. For instance, while having related concerns, agriculture, natural resource, and environmental ministries are often separated and do not work together effectively.

Promising initiatives to gather the national focal points for multiple instruments and institutions, national finance and planning ministries, and their international counterparts merit further examination. For countries whose national agenda does not prioritize the environment, UNEP needs to identify nexus areas between the environment and other pillars of sustainable development, and strive to maintain its presence and relevance in these countries through concrete activities.

UNEP's efforts to achieve greater synergies at the international level can achieve even greater impact as a result of administrative and procedural changes taken at the national level.

Science-policy interface

Building on its existing strengths, UNEP has many opportunities to develop scientific evidence and communicate data to policy makers and other stakeholders. One opportunity involves the application of existing UNEP products to support new initiatives, particularly the 2030 Agenda. As an example, UNEP could align the Global Environment Outlook with the Global Sustainable Development Report. One possible way of accomplishing this alignment would be to facilitate unified reporting by member states on the environmental dimension of sustainable development through modular reporting arrangements that would enable reporting on discrete matters that could be reused in other reports.

One challenge is the use of diverse targets and indicators adopted by the Environment Management Group members to monitor their performance. A further challenge is that the indicator frameworks employed by Group members were developed prior to the 2030 Agenda and SDGs and the frameworks may be misaligned. Opportunities exist for UNEP to support harmonization of indicator frameworks and data collection among UN agencies, MEAs, and member states and aligning those modalities with SDGs monitoring efforts. Initiatives such as the Global Biodiversity Indicator Partnership, developed with leadership from UNEP, can be expanded to support the needs for data regarding matters cutting across other environmental sub-sectors such as air pollution, climate change, chemicals, land degradation, as well as other contexts where the environment intersects with other sectors. UNEP could also identify and realize synergies between the observational and measurement infrastructures used by diverse actors in the environmental field. Through the assistance of UNEP-WCMC, initiatives such as the Group on Earth Observations Biodiversity Observation Network can be broadened to incorporate the observational needs of other environmental sub-sectors.

Geographical location

Efforts to build the regional presence of UNEP are important steps to improving its reach. These efforts offer an opportunity for UNEP to help address the environmental dimension of the SDGs more effectively. Regional presence has also increased efforts to engage regional organizations. Yet this initiative is still in its infancy. A challenge going forward will be to build those regional offices into capable and functioning bodies.

A further challenge is to complete the consolidation of UNEP headquarters to Nairobi. While having a presence in Geneva does afford some visibility and may facilitate coordination among other UN agencies, multiple observers have noted that it has at times detracted from the focus on Nairobi as the headquarters. Similarly, UNEP's increased

regional presence holds the risk of creating multiple centers of authority in the organization, which if not managed properly could undermine organizational and policy coherence.

The regional environmental ministerial forums can support UNEA's contribution to the HLPF by mobilizing contributions to Regional Forums on Sustainable Development hosted by the UN regional economic commissions. By following up on UNEA's agenda, UNEP's regional offices and regional ministerial forums can ensure that the environmental dimension to sustainable development is fed into the HLPF process.

One unintended consequence of the regional commissions' increased role is that it gives the regional commissions, which lack a strong environmental mandate, potentially greater input on the 2030 Agenda implementation than the Environment Management Group members with specific mandates pertaining to environmental matters. To mitigate this risk, UNEP could make efforts through its regional offices to work closely with the regional economic commissions and ensure that the priorities of UNEA and the Environment Management Group members are reflected in the agendas of the regional forums. These regional commissions could also report directly to UNEA.

Stakeholder engagement

A comparative advantage UNEP enjoys in the environmental field is its convening power. As the recognized leading UN environmental institution, UNEP can bring together actors within the environmental sector as well as from other sectors. Indeed, UNEA is one such forum where many stakeholders are involved. Another example is the "national biodiversity strategies and action plans forum" jointly developed with the Convention on Biological Diversity Secretariat. UNEP has also helped facilitate the engagement of large numbers of actors in such initiatives as the Global Biodiversity Indicators Partnership, the Global Biodiversity Information Facility and the Group on Earth Observations Biodiversity Observation Network, which illustrate the powerful set of capabilities that can be harnessed through multi-stakeholder groups of interested actors. UNEP's convening power is an important capability that can foster dialogue among diverse actors leading to more coherence and effectiveness.

Despite making progress in engaging stakeholders, particularly among the private sector, the issue has not received sufficient support from UNEA. One problem is that rather than being a part of the UNEA deliberations, the Major Groups and Stakeholders meeting is held in advance of the meeting. In addition, although the Secretariat prepared a draft policy on stakeholder engagement for UNEA-2, the member states did not adopt it.

Likewise, notwithstanding positive trends, engagement of the private sector remains thin. In terms of the private sector, with the UN Conference on Trade and Development estimating that there currently more than 63,000 transnational companies with 690,000

subsidiaries, it is clear that existing private sector outreach has reached only a limited number of companies. Developing partnerships and engagement with industry associations could be a way of including a broader range of businesses.

A more ambitious approach would be to adopt a model similar to the UN Committee on World Food Security, which created two mechanisms—the Private Sector Mechanism and Civil Society Mechanism—through which input from those constituencies can be fed into Committee deliberations. The representatives of these stakeholder groups consult broadly among their members and present common positions on issues before the Committee. This approach helps focus stakeholder concerns, improves deliberation among member states, and adds to the legitimacy of the institution.

The complexity of UNEP's challenge to lead the global environmental agenda means that substantial involvement of a wide range of stakeholders will be necessary. A key challenge for UNEA in the coming years is to engage wider groups of stakeholders and stimulate action.

Section 5. National Level Activity

UNEP's central place in addressing the environmental dimension of sustainable development will position it to assist UN member states implement the SDGs. UNEP can help raise awareness of member states on the environmental dimension of sustainable development and can draw upon its expertise from decades of work in the environmental field. A key approach to assisting country activities would be to study and evaluate lessons learned from UNEP assistance to national environmental authorities in the past decade. Careful review of this experience can help in determining how best UNEP can focus its efforts to support national reform.

UNEP can also assist in identifying overlap and synergies between the environmental dimension of sustainable development with SDGs pertaining to the broader agenda. UNEP can draw on its experience in assisting countries implement environmental programs and law under the Montevideo Programme, for instance to advise and assist members on effective strategies and practices. Finally, it can help states understand and work through the multiplying array of indicator frameworks and targets that have been developed to measure progress against global goals and normative frameworks. One approach would be to develop pilot activities to work with the mechanisms that are being developed through the UN system for improving national level implementation.

Improvements in operations of the UN system at the national level afford an opportunity to enhance UNEP national level activities. As an example, the recently adopted model of a single set of standard operating procedures for the UN Development Group, for instance, is designed to facilitate collaboration between UN entities. The standard operating procedures are an outgrowth of stocktaking on the pilot Delivering as One agenda and represent the next phase in its development and application.

Ensuring that normative environmental instruments are given appropriate emphasis in national development strategies and the UN Development Assistance Framework is another emerging approach. Consistent with the Rio+20 outcome document, paragraph 5(c) of Environment Assembly resolution 2/5 encouraged the Executive Director to promote the integration of the environmental dimension of sustainable development in the UN Development Assistance Framework and at the country level and enhance institutional and human capacity building at the national, regional, and international levels. In paragraph 8, it encouraged the Executive Director to support governments' efforts to enhance institutional and human capacities and policy and legal frameworks towards effective integration and implementation of the environmental dimension of sustainable development. These approaches can mitigate the risk that environmental norms, particularly related to MEAs, will be diluted as they are mainstreamed in the broader sustainable development agenda.

A recurring theme in reviews of national environmental activities has been the lack of coordination within national governments. In many areas, authority over environmental activities is split between different actors and institutions. Even within the same sector, such as biodiversity, there is a lack of coordination. National actors sometimes do not interact with relevant focal points in the same sector and opportunities for synergies between different areas such as climate change and biodiversity are not pursued because of a lack of interaction of the actors. For instance, while having related concerns, agriculture, natural resource, and environmental ministries are often separated and do not work together effectively. This lack of coordination is also evident in respect of implementation of different MEAs. Promising initiatives to gather the national focal points for multiple instruments and institutions, national finance and planning ministries, and their international counterparts merit further examination.

Enhancements to legal and regulatory structures in countries can help stimulate activity that will support better environmental planning, programming, and implementation. A key part of achieving environmentally relevant SDGs will be effective regulatory and enforcement bodies. There is a range of activities that can be undertaken. Options include pilot activities to strengthen institutions responsible for the implementation, compliance, and enforcement of environmental law. Likewise, efforts can be made to assist countries upgrade

their environmental legislation to conform with priorities in the SDGs and facilitate more efficient, synergistic, and effective national environmental law, governance, and policy. To support the knowledge base upon which effective national environmental governance and management can be undertaken, activities to strengthen expertise in environmental impact assessments and strategic environmental assessments would be important facilitators as well.

Section 6. Suggested Way Forward and Recommendations

The developments discussed above represent important enhancements to international environmental governance but also provide the basis for still greater improvements in the future. It is important to take into account the perilous state of the global environment in determining the nature and scope of reforms that are required.

This section contains key recommendations about ways of enhancing international environmental governance with a view to achieving the 2030 Agenda and SDGs. In addition to the author's views, these recommendations draw upon feedback from participants in the workshop on "Achieving environmental sustainability and sustainable development" organized by UNEP in July 2016 in New York.

Recommendations

Strengthen main international environmental governance institutions

Reinforce UNEA status and authority. UNEA should establish itself as the global forum and ultimate authority on the environment and shift away from its former self, the Governing Council. The success of UNEA will depend not only on stronger links with HLPF and the UN Economic and Social Council but also on its ability to reach out and influence other agencies and forums by articulating major global issues. UNEA should be a body that strengthens UNEP and not the other way around.

Member states need to make concerted efforts to preserve the voice of UNEA as the highest political environmental authority and not downgrade it into a negotiating forum. They should also provide strategic political guidance to ensure that UNEA is distinguished from UNEP.

Ensure optimal member state representation. Experience at the national level suggests that environmental policy improvements, institutional reform, and legal change require substantial political support. Efforts should be made within UNEA to encourage member states to involve government functions that have more direct responsibility for

environmental matters, including ministries of finance and planning. UNEP may be able to facilitate such involvement by raising awareness among actors with which it works at the national level. In addition, the regional ministerial forums may offer an opportunity to encourage this engagement.

Improve efficiency and effectiveness of UNEA meetings. Putting aside these practical impediments, attention should be given to how governance meetings could be made more efficient. Identifying ways of delegating more matters to the Secretariat or creating expert groups nominated by member states to formulate policy guidance on technical issues are two possibilities. In addition, the President of UNEA could consult with UNEP and member states to develop a set of meeting priorities. Those priorities would constitute the minimum necessary outcomes of the meeting, while other matters could be addressed to the extent time allows.

Experiment with new technology-enabled deliberation and decision-making tools. UNEA could experiment with innovative models of deliberation through technology-enabled applications. The sheer complexity of global environmental governance and vast quantities of data available require methods to facilitate member states' understandings and deliberations. Visualization tools, decision support systems, argument and conceptual mapping can be used to stimulate discussion, facilitate fresh thinking, and identify novel solutions. These approaches could be piloted at the meetings of the Committee of Permanent Representatives to UNEP as well as at UNEA.

Improve UNEA-HLPF linkages. Given that the HLPF will be monitoring achievement of the integrated 2030 Agenda and SDGs, UNEA must cooperate with the HLPF on the environmental dimension. The member states of UNEA should ensure that their decisions contribute meaningfully to the relevant processes in New York, including the HLPF. There are a variety of means by which such inputs can be provided. First, member states can help share their views and transmit relevant priorities to the HLPF on the environmental dimension by referring to UNEA outcomes in their statements to the Forum. To ensure the relevance of inputs from UNEA, efforts can be made to develop outcomes of UNEA meetings that speak to emerging and nexus issues linked to the particular theme of each year's HLPF. Second, UNEP should work to align its Global Environmental Outlook with the Global Sustainable Development Report and assist the UN Department of Economic and Social Affairs in integrating the findings in the Global Sustainable Development Report. Finally, to improve the engagement of the Environment Management Group members in UNEA, UNEP could convene the the Group meeting around the HLPF sessions.

Improve engagement of stakeholders. To enhance the participation of major groups and stakeholders in UNEA, a number of steps can be taken. First, at UNEA meetings formal consultations with external groups and stakeholders could be conducted alongside the meetings of member states. Second, to enable a wider range of stakeholders to participate,

UNEA sessions could be held in different regional locations. Third, effort could be made to take stock of existing tools for virtual consultations and stakeholder engagement and expand the use of the most effective approaches.

Efforts to engage with the private sector could be significantly expanded. Examples include engaging with national and international business associations, organizations promoting sustainability and ethical business, groups of organizational compliance professionals, and small and medium enterprise associations. Given that there are diverse initiatives within the UN already underway to engage with the private sector, it would be useful to begin by gaining a comprehensive understanding of what relevant activities are underway within the UN system, whether UNEP is already involved, and if not how UNEP could leverage the initiatives to support its private sector engagement.

To improve engagement of both constituencies, UNEA should consider taking an approach similar to the Committee on World Food Security's Private Sector Mechanism and Civil Society Mechanism as ways of structuring and facilitating stakeholder engagement.

Strengthen strategy and management for international environmental governance

A key aspect of improving international environmental governance and the performance of environmental institutions involves management practices.

UNEP should seek ways to strengthen management and execution of UN strategies and programs for the environment. Approaches include developing knowledge and sharing expertise on design of activities and programs, mobilizing and allocating resources, and monitoring and evaluation.

Examine utility of existing management techniques. The UN system has made strategic management a central part of international environmental governance, but there is little evidence for what works or does not. We can see the value of strategic management in terms of coordinating dispersed actors, however, we do not have strong evidence for whether it produces results. We need to develop better understandings of what constitutes good global, regional, and national strategy and how to link strategies that overlap and interconnect. How do we measure the effectiveness of these strategies and how quickly are we able to adapt them in light of shortcomings or successes? Are these strategies being used by organizations in budgeting, results monitoring and performance management? Are they being aligned with strategies of other organizations? Are strategies being revised in light of experience? Is greater discipline and accountability being applied to the outcomes and results of these strategies?

Develop more standardized management practices among environmental actors. As the knowledge base on strategic management in the

environmental sector improves, there will be an opportunity to develop more systematic guidance on how to do it well. Many of the practices that have been introduced into international environmental governance in recent years have occurred on an ad hoc basis. While decisions about such matters as the content of specific strategies and indicators for different MEAs may remain with the parties, UNEP could play a role in defining more standardized processes. This would be advantageous for a number of reasons. It could facilitate greater knowledge about the practices, support long term improvements, reduce costs, improve planning, foster harmonization, and enable domestic and international level synergies and the interoperability of management systems.

Improve science and technological capabilities

Mainstream complexity analysis and theory in policy, activity, and reporting. The dominant approach to thinking about international environmental policy and law is linear. This approach runs contrary to the insights generated by complexity theory, which some observers consider among the most important scientific advances of the past 100 years. Complexity theory has tremendous affinities to international environmental governance, given that many of the insights upon which it is founded have their roots in biology and ecological systems. While many of the tenets of complexity—non-linearity, feedback loops, overlap and interrelation of many parts, self-organization—are accepted by legal and policy actors, their acceptance has largely not been translated into action.

Significant challenges to the acceptance of nonlinearity exist given that policy makers largely maintain these assumptions, however, a process of awareness raising and experimenting with complexity approaches could widen receptivity towards this unorthodox manner of thought.

A key opportunity for applying complexity theory to international environmental governance is to employ the "positive deviance" perspective. Positive deviance approaches involve the review of specified phenomena with a view to identifying clear successes. To illustrate, taking a group of actors implementing a particular project, say, concerning clean drinking water. Assuming 90 per cent of the projects failed, one would study the 10 per cent that succeed. That analysis may identify a particular approach that can then potentially be replicated. Positive deviance can be used to test approaches before scaling them up.

Upgrade evaluation methodologies. Similar to the prior recommendation, international environmental governance could benefit from improving the techniques for evaluation. Evaluation is used extensively to support implementation of international environmental strategy, policy, and programs. Practices have largely settled on a basic model developed in 1991 under the Development Assistance Committee to the Organisation for Economic Co-operation and Development, the Principles for Evaluation of Development

Assistance. It is not obvious that this framework is the optimal choice for global environmental governance.

The underlying measure of whether international environmental governance is effective is whether it supports improvements in the environment and generates additional benefits for society. While there is an important development dimension, given the extent to which the system is built on MEAs, regulation and governance are more salient considerations.

Now 26 years old, the Development Assistance Committee framework is poorly suited to evaluating success of regulation and governance, because it is designed for traditional donor development assistance programs. Hence, the questions it seems to address are designed to determine if an external intervention achieved development impact rather than whether the development impact generated regulatory or governance results. Even if it was framed appropriately, it assumes a linear model of causation. Moreover, the recognition of national ownership and national drivers as critical to achieving environmental results makes a traditional aid orientation for evaluation in this sector less appropriate. Evaluation professionals have been developing new tools but these have not been incorporated into orthodoxy. Wholesale reform is needed and UNEP is well positioned to make a major contribution to these efforts.

UNEP is already developing expertise on evaluation practices for multilateral treaties through efforts such as the UNEP and the UN Food and Agriculture Organization evaluation of the Basel Convention, Rotterdam Convention, and Stockholm Convention synergies arrangement. UNEP can help develop evaluation practices that incorporate learning in complexity theory, including considerations such as non-linearity, feedback, self-organization, and unintended consequences.

Knowledge base for data collection and science. As described in this paper, international environmental governance processes are supporting massive improvements in the knowledge base across the sector. Data is being generated across the full range of issues, targets and indicators are providing insights into results, and evaluation practices are providing insights into the effectiveness of strategies, management, and operations of many institutions. These developments need to be understood as profoundly important and reflecting UNEP's cooperative advantage.

Deepen efforts to development synergies. A key challenge in international environmental governance is how to drive changes through networked governance systems. There is a degree to which efforts to create synergies between UN entities must occur through

their self-organizing activities. Efforts such as the System-Wide Framework of Strategies on the Environment lack a strong governance and management driver. There is a real question as to whether strategies enforced through very weak hierarchy can generate results.

The practices described in this paper largely accept the networked nature of this governance system and the lack of hierarchy. Yet behind these systems, structures, mechanisms, and strategies, a question remains: how to incentivize actors and institutions that have a great degree of autonomy? Effort should be given to identifying ways that member states can support these inter-organizational and inter-instrumental processes. How can UNEA and other UN bodies enable these governance, management, and operational systems to achieve their full potential?

Effort needs to be made to achieve greater synergies among the MEAs.

Despite taking steps to improve synergies through resolutions such as "Enhancing the work of UNEP in facilitating cooperation and synergies among biodiversity-related conventions" (UNEA resolution 2/17), member states have been resistant to stronger forms of collaboration and rationalization among the MEAs. There appear to be multiple reasons for this situation. First, states that have not ratified particular agreements object to having the treaties they have ratified aligned with others they have not. Second, there is reluctance among MEA secretariats to relinquish a portion of control to other MEAs or UNEP. Third, there is a legal formalist view that each MEA has an independent juridical status, which must be respected. While true, there is no inherent conflict between this legal fact and greater cooperation. Developing joint strategies is one pragmatic way of alleviating this tension.

The 2030 Agenda and SDGs can provide additional impetus and new tools to further synergies in the sector. The System-Wide Framework of Strategies on the Environment was an important step in this regard. The integrated nature of the SDGs will contribute to these efforts. As actors within and outside the UN system seek to make progress on the SDGs, they may develop joined up strategies and plans. Further, management of the SDGs agenda by the HLPF and other UN institutions can contribute synergistic approaches to reporting and monitoring, which should drive actors to coordinate their efforts more tightly.

One potential limitation is the degree to which all MEAs are reflected in the SDGs. While some MEAs are quite explicitly included in the SDGs, efforts need to be made to map all MEAs to the SDGs to determine if there are gaps. In addition, where multiple MEAs pertain to particular targets, attention should be given to ensuring that the less well-known conventions are not crowded out.

Plan for next generation of international environmental governance

Restructuring normative framework for international environmental

governance. While substantial progress has been made to develop synergies between treaties within specific sub-sectors, potentially more radical approaches should be considered. Existing efforts to build synergies between networked institutions with legal autonomy have been cumbersome. The synergies process among chemicals treaties is an important but legally and administratively cumbersome undertaking. Likewise the biodiversity synergies activities including the national biodiversity strategies and action plans alignment was quite onerous. These experiences raise some important questions. Have these efforts generated improvements in chemicals and wastes management globally? Has it generated efficiency gains? Similarly the efforts to create synergies among biodiversity conventions need to be closely reviewed. Evidence suggests that they have achieved only partial alignment. UNEP can develop insights that can support future practices.

Putting aside the political or administrative challenges, effort should be made to explore whether existing instruments and institutions are adequate or whether new ones can be developed that replace them. Such efforts can be supported through enhanced evaluation practices. Opportunities include developing instruments that cut across multiple sub-sectors and issue areas. While the innovations in existing institutions and instruments to promote synergies and take more comprehensive and integrated approaches to sustainable development may support performance improvements, this result should not be presumed. The international community should be prepared to initiate new normative undertakings should current efforts not succeed.

Conclusion

The documented environmental degradation underway globally requires urgent action. Today's international environmental governance system is composed of a diverse set of new and emerging institutions, processes, and mechanisms that provide the basis for making substantial improvements. From a historical perspective many of these developments represent major innovations. Yet the benefits of these changes remain to be seen and the system must be viewed very much as a work in progress. There is a lack of evidence on the results of these initiatives themselves and the data and knowledge they will be generating on environmental performance is largely forthcoming. A major question will be how these new knowledge flows will be used to modify strategies, instruments, and institutions to respond to changing conditions and identified shortcomings. As this paper makes clear, UNEP will have a major role to play in continuing to develop the international environmental governance system and help ensure that it brings about improvements in the environment for current and future generations.