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ENVIRONMENT MANAGEMENT GROUP EMG

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Strategic Discussion by the Senior Officials of the Environment Management Group

Biodiversity in the context of the Post-2020 Global Biodiversity Framework

Summary

Each year, Senior Officials of the Environment Management Group (EMG) are invited to discuss environmental issues that require UN-wide effort and contributions, in follow up to the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.

In view of the ongoing intergovernmental process to develop a Post-2020 Global Biodiversity Framework and the call by Member States to the UN system to provide its contribution to this process, the Senior Officials are invited to consider this issue for their strategic discussion at their 25th meeting. This note has been prepared to support the discussion.

A strategic discussion on biodiversity is suggested with reference to the following:

1. Findings of the recent reports by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) [1] highlight the severe state of biodiversity loss and the continued and increasing trends of human-induced pressure on nature, despite global commitments to halt biodiversity loss;
2. Ongoing preparations by Member States for a renewed global commitment on biodiversity, including a Post-2020 Global Biodiversity Framework with a 2050 Vision of "living in harmony with nature", expectations of the UN System in this regard and the opportunity for the EMG to identify possible contributions to support this effort; and
3. The relevance and importance of biodiversity to UN entities and their constituencies, including in fulfilling their commitments under the 2030 Agenda for Sustainable Development[2].

[1] Landmark reports in 2019 which brought both scientific and political recognition of the severity of biodiversity loss and its implications include – the 6th Global Environment Outlook, the Global Resources Outlook, the FAO Report on the State of the World's Biodiversity for Food and Agriculture and the IPBES Global Assessment Report on Biodiversity and Ecosystem Services.

[2] A new strategic framework which is informed of the strategic objectives of development cooperation sectors will facilitate engagement of those sectors in its implementation.

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In this regard, the Senior Officials are invited to consider the following questions:

a) What were the key successes and constraints in mainstreaming and incorporating the current biodiversity targets in your development programmes and work programmes?

b) How can the new Strategic Framework for Biodiversity be defined to increase its relevance to poverty reduction and inclusive growth, and to foster greater Agency involvement in its implementation?

c) How can UN entities effectively contribute to the preparation of the Post-2020 Biodiversity Framework and actively engage their constituencies in that process?

d) How can the biodiversity agenda be elevated, learning from the climate and other successful experiences in forging a UN and global commitment?

e) How can UN entities leverage and give a new momentum to the biodiversity goals and targets in the specific areas of their work, in line with their respective roles and agendas for implementing the SDGs?

- How can EMG members respond to the drivers of biodiversity loss (particularly land-use change / habitat conversion, overexploitation, pollution, climate change and invasive species)?
- What commitments could EMG members make to support the 2050 Biodiversity Vision?
- Is there potential for each UN entity to be the custodian of a biodiversity goal(s), target(s), indicator (s), for example as part of their current commitment's vis a vis the SDGs targets and custodianship of indicators?

Senior Officials are further invited to consider establishing a consultative process in the EMG to follow up on this discussion and prepare a system-wide contribution to the Post-2020 Global Strategic Framework.

The Annex to this note provides additional background and reflections to stimulate the discussion, building on the recent IPBES report on addressing the drivers of biodiversity loss, and includes some thoughts on priority areas where UN entities can consider collaboration and joint action in safeguarding and enhancing ecosystems, with the Sustainable Development Goals in mind.

Preparing for a renewed UN system commitment to biodiversity

Background

In 2010 in Nagoya, the international community agreed on a global Biodiversity Agenda, adopting The Strategic Plan for Biodiversity 2011-2020 and its twenty Aichi Biodiversity Targets. This provided a framework for priority actions on conservation, sustainable use of biodiversity, and the fair and equitable sharing of the benefits arising from the use of genetic resources.

This was a major step for multilateral discussions on biodiversity, reaffirming the importance of biodiversity for sustainable development and highlighting its centrality to human well-being. The Aichi Targets were later integrated into several Sustainable Development Goals, such as food security, health, access to clean water and sustainable energy for all, as well as in the Goals for Life on Land and Life Below Water. This has resulted in the biodiversity agenda being a part of a larger global framework for sustainable development and therefore a more collective responsibility of the wider socio-economic and environmental sectors.

While progress has been made by countries in implementing some aspects of the Aichi Biodiversity Targets, however, most of the targets have not been realized and biodiversity and the ecosystem services it provides are declining globally at rates unprecedented in human history. The recent IPBES Global Assessment on Biodiversity and Ecosystem Services (IPBES, 2019) stresses that the health of ecosystems "on which we and all other species depend is deteriorating more rapidly than ever...eroding...economies, livelihoods, food security, health and quality of life worldwide."

The Assessment indicates that goals for conserving and sustainably using nature and achieving sustainability will not be met by current trajectories: it is likely that most of the Aichi targets will be missed by the 2020 deadline. Current negative trends in biodiversity and ecosystems hinder progress in 35 of 44, or 80 per cent, of the assessed targets of the Sustainable Development Goals; goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors.

Direct causes of biodiversity loss (habitat conversion, over exploitation, pollution, climate change and invasive alien species) result from an array of underlying indirect drivers, such as patterns of production and consumption, human population growth, urbanization, trade, technological innovation and inadequate governance. These drivers of biodiversity loss are growing in both severity and impact, and also undermine other goals, such as those of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (IPBES Global Assessment 2019).

The Fourth Global Biodiversity Outlook (CBD, 2014) states that most countries lack the whole-of-government approach necessary to address the drivers of biodiversity loss. This must be addressed at the highest levels of government. Public engagement and awareness of the criticality of these issues must be raised to a level associated with climate change, and the momentum which led to the Paris Agreement. Urgent actions must be taken for biodiversity considerations to become more prominent in in policy making and to change societies' production and consumption habits.

Preparations for a renewed global response (2019-2020)

The 2019-2020 biennium is crucial to global biodiversity governance. The international community, under the auspices of the Convention on Biological Diversity (CBD), will review successes and failures in the implementation of the Strategic Plan for Biodiversity 2011-2020, and negotiate a new global biodiversity framework for the post-2020 era. The 2020 UN Biodiversity Conference, to take place in October 2020 in Kunming, China, will be a critical moment for Member States and the United Nations System to make a determined and committed stand for nature. Through an Open-Ended Working Group, Member States aim to prepare a robust, progressive, implementable and impactful Global Biodiversity Framework. The UN System and other international organisations have been invited by the Conference of the Parties to the CBD to contribute to this process.[3]

Role and contribution of the Environment Management Group

In the 10 years since the CBD COP in Nagoya, the UN System has been involved in and contributed to the biodiversity agenda including through the Environment Management Group. The EMG Biodiversity Report and the Map of UN Agencies vis-à-vis the Aichi Targets, show the relevance of biodiversity goals to a large number of UN entities. Enhancing human well-being was recognized as the common denominator for most of the UN entities, in relating their policies and programmes of work to the Aichi Targets. Many EMG Members could, however, further enhance their contributions.

[3] CBD COP decision 14/34

Mechanisms for cooperation are already in place – notably among the Convention on Biological Diversity, other biodiversity-related conventions and the other Rio Conventions[4], and among the United Nations entities[5]. The collaborative nature of these conventions has catalysed interaction with key sectors such as land management, agriculture and forestry. Several UN system-wide actions address the indirect drivers of biodiversity loss through policy advice, communication, education and public awareness. This includes the implementation of the ecosystem approach, the revision of economic incentives and the mainstreaming of biodiversity across sectors in government and society. Contributing to national biodiversity mechanisms, monitoring and evaluation, and data analysis and integrating biodiversity into wider UN country-level development plans such as Sustainable Development Frameworks, are identified for UN-wide support amongst other areas.

Looking forward, the UN System can renew its contribution to the biodiversity agenda through the following actions:

1. Identifying gaps in mainstreaming the biodiversity-related goals of UN entities, by reviewing the current and emerging actions of EMG members on SDG 14 (Life Below Water) and SDG 15 (Life on Land) and other biodiversity goals;
2. Identifying the economic relevance and concrete opportunities of addressing biodiversity loss as a result of land-use change/habitat conversion, overexploitation, pollution, invasive alien species and climate change.
3. Providing specific contributions to enable the Post-2020 Global Biodiversity Framework to be relevant to all SDGs, and to be implementable by UN agencies; and
4. Defining and agreeing on clear and measurable commitments from EMG members such as a "UN Nature Action Agenda" to deliver on the Post-2020 Global Biodiversity Framework for example from 2021-2030.

Key questions

Building on the current engagement of the UN System on biodiversity and SDGs implementation, looking forward to the post-2020 Global Biodiversity Framework under the wider 2030 Agenda, EMG Senior Officials are invited to engage in a forward-looking discussion and share their views and perspectives on the following:

1. What were the key successes and constraints in mainstreaming and incorporating the current biodiversity targets in your development programmes and work programmes?

2. How can the new Strategic Framework for Biodiversity be defined to increase its relevance to poverty reduction and inclusive growth, and to foster greater Agency involvement in its implementation?

3. How can UN entities effectively contribute to the preparation of the Post-2020 Biodiversity Framework and actively engage their constituencies in that process?

4. How can the biodiversity agenda be elevated, learning from the climate and other successful experiences in forging a UN and global commitment?

[4] Such as through the Liaison Group of Biodiversity-related Conventions and the Joint Liaison Group of the Rio Conventions

[5] Such as the Inter-agency Liaison Group on Invasive Alien Species

5. How can UN entities leverage and give a new momentum to the biodiversity goals and targets in the specific areas of their work, in line with their respective roles and agendas for implementing the SDGs?
    - How can EMG members respond to the drivers of biodiversity loss (particularly land-use change / habitat conversion, overexploitation, pollution, climate change and invasive species)?
    - What commitments could EMG members make to support the 2050 Biodiversity Vision?
    - Is there potential for each UN entity to be the custodian of a biodiversity goal(s), target(s), indicator (s), for example as part of their current commitment's vis a vis the SDGs targets and custodianship of indicators?

The Senior Officials are invited to consider establishing a consultative process on biodiversity, to follow up on this discussion and prepare EMG contributions to the Post-2020 Global Strategic Framework including approaches for follow up of the Framework by the UN System.

Annex 1

Points to stimulate and support the Senior Officials discussion

The challenge

> *"Ecosystems, species, wild populations, local varieties and breeds of domesticated plants and animals are shrinking, deteriorating or vanishing. The essential, interconnected web of life on Earth is getting smaller and increasingly frayed". […] "This loss is a direct result of human activity and constitutes a direct threat to human well-being in all regions of the world."* Prof. Josef Settele, Co-chair, IPBES Global Assessment Report[6]

> "*The overwhelming evidence of the IPBES Global Assessment, from a wide range of different fields of knowledge, presents an ominous picture*". *The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide*." Sir Robert Watson, IPBES Chair

Human activities are destroying biodiversity at around 1000 times faster than natural "background" rates. Yet the overall perception in most countries – by government, the private sector and public opinion – of the urgency and severity of this phenomenon is low.

The difficulty in understanding the real nature of the challenge stems from various factors, including the frequent misuse of the term "biodiversity" and misunderstandings associated with it. For example, biodiversity loss is often heralded as the survival of select, iconic species (such as polar bears or other large mammals) and conservation actions are viewed as obstacles to the use of land and natural resources which would increase economic development and the improvement of people's standards of living.

The internationally agreed definition of biodiversity, according to the Convention on Biological Diversity (CBD) is: "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."

Biodiversity is a fundamental property of the natural world as a whole, and not specific aspects. This is essential to understanding the existential threat that loss of biodiversity poses to humans and nature.

The biosphere (the collection of all the earth's ecosystems, comprising all living species and their interactions) is an incredibly complex, extraordinary self-regulated system. The proper functioning of this system (the "web of life") requires that a large variety of species interact with one another and with their environment. Biodiversity is fundamental to:

- The proper functioning of ecosystems and their ability to provide the flow of goods and services indispensable for the subsistence and well-being of people. Biodiversity impacts productivity, and the stability of ecosystems is more significant than either climatic or nutrient influences;
- The health of ecosystems, including resistance to invasion by alien species and control of pathogens that may have devastating impacts on particular species and habitats;

[6] The IPBES Global Assessment Report (2019) on Biodiversity and Ecosystem Services is the most comprehensive ever completed. It is the first intergovernmental Report of its kind, compiled by 145 expert authors from 50 countries over the past three years, with inputs from another 310 contributing authors. The Report assesses changes over the past five decades, providing a comprehensive picture of the relationship between economic development pathways and their impacts on nature. The Report provides sound and comprehensive scientific evidence of the rapid and massive loss of biodiversity and deterioration of ecosystems, at global and regional levels – see https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

- The resilience of ecosystems, i.e. their ability to absorb shocks and adapt to modifying conditions (including notably climate change); and
- Aesthetic and spiritual values which bind human communities and are essential for society.

Loss of biodiversity poses not only profound, existential threats for nature and human survival; it also has immediate, severe impacts on development agendas.

As noted by Dilys Roe at al. (IIED)[7], "*This global biodiversity crisis is **hitting the poorest people first and hardest**, because biodiversity underpins environmental goods and services that poor communities can ill-afford to 'buy in' – things like flood protection, drought resilient crops, and wild caught protein*." […] "*It can mean fewer wild foods, reduced nutritional security, poorer pollination, and less productive and resilient agricultural systems. It can bring higher exposure to agri-chemicals, reduced access to traditional medicines and lost opportunities for drug development, as well as translating into higher disease burdens. […] And as for climate change, biodiversity loss compromises adaptive capacity, exacerbates natural disasters, and often reduces carbon storage.*"

The IPBES Global Assessment Report 2019 indicates that goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories: it is likely that **most of the Aichi targets will be missed by the 2020 deadline**. Current negative trends in biodiversity and ecosystems will undermine progress towards 80 per cent (35 out of 44) of the assessed targets of the Sustainable Development Goals: **goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors**.

Tackling the causes

Environmental issues have been considered separate from other societal issues for too long and treated as secondary by public authorities and the private sector, unlike the "imperatives" of economic growth, industrialization, trade and finance.

As a result, the world economic system has created a paradigm which depletes natural resources, uses energy, encourages population growth, production and consumption patterns, increasingly generates waste, pollution and carbon emissions. These patterns far exceed the capacity of the planet to sustain them.

The IPBES Global Assessment Summary for Policymakers [8](section B) highlights that "*The rate of global change in nature during the past 50 years is unprecedented in human history. The direct drivers of change in nature with the largest global impact have been (starting with those with most impact): changes in **land and sea use**; **direct exploitation of organisms**; **climate change**; **pollution**; and **invasion of alien species**. Those five direct drivers result from an array of underlying causes – the indirect drivers of change – which are in turn underpinned by societal values and behaviours that include production and consumption patterns, human population dynamics and trends, trade, technological innovations and local through global governance.*"

The same document (para. B.5) also acknowledges that "***Economic incentives have generally favoured expanding economic activity**, and often environmental harm, over conservation or restoration. […] **Harmful economic incentives and policies** associated with unsustainable practices in fisheries, aquaculture, agriculture (including fertilizer and pesticide use), livestock management, forestry, mining and energy (including fossil fuels and biofuels) are often associated with land-/sea-use change and overexploitation of natural resources, as well as inefficient production and waste management".*

[7] Dilys Roe at al., *Biodiversity loss is a development issue. A rapid review of the evidence*, iied, April 2019
[8] https://www.ipbes.net/news/ipbes-global-assessment-summary-policymakers-pdf

The IPBES Global Assessment Summary for Policymakers (para B.10) indicates that "*today, humans extract more from the earth and produce more waste than ever before. Globally, **land-use change** is the direct driver with the largest relative impact on terrestrial and freshwater ecosystems, while direct exploitation of fish and seafood has the largest relative impact in the oceans. Climate change, pollution and invasive alien species have had a lower relative impact to date but are accelerating***".**

[…]

(para B.15) "*Unsustainable use of the Earth's resources is underpinned by a set of demographic and economic indirect drivers that have increased, and that furthermore interact in complex ways, including through trade*."

From the perspective of this note, is it particularly important to underline that:

- (para B.11) ***"Land-use change** is driven primarily by **agriculture, forestry and urbanization**, all of which are associated with air, water and soil pollution**.** Over one third of the world's land surface and nearly three-quarters of available freshwater resources are devoted to crop or livestock production.[…] Approximately 25 per cent of the globe's greenhouse gas emissions come from land clearing, crop production and fertilization, with animal-based food contributing 75 per cent of that. Intensive agriculture has increased food production at the cost of regulating and non-material contributions from nature, though environmentally beneficial practices are increasing. Small landholdings (less than 2 hectares) contribute approximately 30 per cent of global crop production and 30 per cent of the global food caloric supply, using around a quarter of agricultural land and usually maintaining rich agrobiodiversity*"

- (para B.16) ***"due to expansions of infrastructure**, extensive areas of the planet are being opened up to new threats**.** Globally, paved road lengths are projected to increase by 25 million kilometres by 2050, with nine tenths of all road construction occurring within least developed and developing countries. […] The expansions of roads, cities, hydroelectric dams and oil and gas pipelines can come with high environmental and social costs, including deforestation, habitat fragmentation, biodiversity loss, land grabbing, population displacement and social disruption, including for indigenous peoples and local communities. Yet **infrastructure can generate positive economic effects and even environmental gains**, based on efficiency, innovation, migration, and urbanization, depending on where and how investment is implemented and**. Understanding this variation in impacts is critical.***

These considerations are well in line with key recommendations of the UNEA4 Global Environmental Outlook (GEO) 6 Summary for policy makers. To note:

(para 5) "*Urgent action at an unprecedented scale is necessary to arrest and reverse this situation, thereby protecting human and environmental health and maintaining the current and future integrity of global ecosystems. Key actions include reducing land degradation, biodiversity loss, and air, land and water pollution; improving water management and resource management; climate change mitigation and adaptation; resource efficiency; addressing decarbonization, decoupling and detoxification; and the prevention and management of risk and disasters.*

*Those all require more ambitious and effective policies, including **sustainable consumption and production**, greater resource efficiency and improved resource management, integrated ecosystem management, and integrated waste management and prevention*."

(para 6.) "*Mainstreaming environmental considerations **into social and economic decisions** at all levels is of vital importance*".

The Summary clearly indicates that:

(para 96). "*Without additional policies, trends in environmental degradation are projected to continue at a rapid rate and the related Sustainable Development Goal targets and internationally agreed environmental goals are not expected to be achieved, including on climate change, biodiversity loss, water scarcity, excess nutrient run-off, land degradation and ocean acidification (well established). Current patterns of consumption, production and inequality are not sustainable, adding to other severe environmental pressures*."

- (para 99). "*Pathways exist that show that the healthy planet needed for sustainable development can be achieved*"
- (para 101). "*Meeting the targets related to climate change, reducing air pollution and providing sustainable energy for all is possible. Measures can be combined in different ways but need to be implemented* ***rapidly and at an unprecedented scale*****."**
- (para 102). "*Eliminating hunger, preventing biodiversity loss and halting land degradation is possible by combining measures related to* ***consumption, production, waste*** *and redistribution of food, and nature conservation policies*".

A call for action and the role of the EMG

The global community is currently preparing for the 2020 UN Biodiversity Conference in China, to mark the closing of the Aichi Biodiversity Targets and set the course for a post-2020, ecologically focused sustainable development pathway, to deliver multiple benefits for people, the planet and our global economy. The IPBES report will serve as a fundamental source of inspiration for humanity to reach the 2050 Vision of the UN Biodiversity Convention "Living in harmony with nature".

All most recent and authoritative reports on the status of the planet published in 2019 (the GEO6 2019 and the IPBES Global Assessment Report 2019, already mentioned, along with the International Resource Panel Global Resource Outlook (GRO) 2019 stressed the fundamental issue of relationships and interdependence: economy, society, technology and environment are so strongly intertwined, that it is of very limited use to address environmental issues distinctly or "laterally" (to help limit or undue some damages) when mainstream economic activities are driving the world system towards major failures.

In this respect it is useful to recall that, whilst dedicated conservation efforts are very important, since the 1970s, there has been a 660 per cent increase in protected area coverage, at the same time there has been a 60 per cent decline in the global populations of most major animal groups[9].

Agenda 2030 and the SDGs provide a blueprint for actions and targets required to drive the world towards a sustainable path. The GEO6 2019, IPBES' Global Assessment Report 2019 and GRO 2019 also provide comprehensive data, scenarios, policy recommendations and more that can (and should) be used as guidance by international organizations, governments, the private sector and civil society.

However, the framework proposed by the SDGs and the publications mentioned is very broad and extremely complex. To address this, the EMG could propose a **list of top priorities** to address the **biodiversity crisis,** identifying underlying causes and linking the priorities to other strategic actions of the United Nations. The priorities could then create synergies to **mobilize the UN System**, countries and the private sector.

Several overarching priorities, identified in the reports mentioned above, are proposed below. The EMG may be the appropriate platform to discuss and agree on a shortlist of key priorities to be actively pursued by the UN System and others, and to catalyze support. The EMG may consider simple and clear directions regarding

[9] See e.g. Watson, J E M et al. (2016) *Catastrophic declines in wilderness areas undermine global environment targets*. *Current Biology* 26 2929–2934. DOI: 10.1016/j.cub.2016.08.049

concrete actions targeting policy makers and the private sector are important – along with guidance, support and initiatives aiming at catalysing resources and scaling up solutions (in a substantial way).

- **Land use** – Unsustainable agricultural practices, chaotic and rapid urbanization and massive extraction of materials are the primary causes of deforestation, soil damage and loss of biodiversity. **Land use planning and the responsible stewardship of land** (at national and international level) are key to a transition to **sustainable agriculture** and for economic development which is compatible to the protection of forests and vital eco-systems. They are also essential to strengthening the resilience of critical life-supporting systems, aiming to limit and cope with damage expected from natural disasters. *The FAO[10], in collaboration with UNEP and the IRP[11] could take the lead for this strategic direction.*
- **Infrastructure** – Urbanization and overall economic growth in emerging economies and developing countries is expected to drive global infrastructure spending in the coming decade. Decisions taken now and in near future will have long-lasting impact, both directly (for example building a power plant may take several years and its lifetime may reach half a century) and indirectly (infrastructures influence business operations, as well as the livelihoods and consumption patterns of people). From the perspective of climate change, **power plants based on renewable energy sources are key**. Low-carbon public transport solutions and energy efficiency of buildings (along with integrated sustainability of urban environment) are likewise crucial.

As outlined in the previous section, the IPBES' Global Assessment Report 2019 highlights that infrastructure is also a key disruptive factor for ecosystems and communities – a fundamental aspect to be addressed by planning and implementation of new infrastructure. *UNEP[12], with UN entities such as UNIDO and UNDP and in collaboration with many other institutions, could lead this effort*.

- **A sustainable economy**. Decision-making in government ministries, corporate board rooms and by individuals currently undervalues and overexploits the natural world. We fail to account for the full economic value of natural capital, such as the value of biodiversity in both providing the clean air, water, food and climate regulation. Tools for better accounting of natural capital exist, but they have yet to be used to inform development decisions at scale. Many opportunities exist to implement natural capital accounting in Systems of National Accounts, to implement fiscal reforms that eliminate the most perverse subsidies (especially those which support unsustainable agriculture) which drive biodiversity loss and degradation through land use change, and for establishing legal and market incentives for nature-friendly goods and services through improved certification, labelling and regulation.

  UNEP has advocated over the years that the decoupling of economic development from use of materials is imperative for sustainability, and therefore affects the preservation of ecosystems and biodiversity. By reducing pressure on the environment for extraction and processing of raw materials, and reducing pollution and waste, we alleviate pressure on ecosystems. The concept of circular economy has gained momentum and can play a central role to re-orientate economic activities. One particularly attractive aspect is the possibility of ***circularity at the level of***

[10] FAO has deep knowledge and a comprehensive set of programmes and resources in support of sustainable agriculture, forestry and fisheries http://www.fao.org/sustainability/resources/publications/en/

[11] UNEP and IRP con provide qualified guidance on land use planning -- See e.g. UNEP and IRP (2016), Unlocking the Sustainable Potential of Land Resources: Evaluation Systems, Strategies and Tools https://www.resourcepanel.org/reports/unlocking-sustainable-potential-land-resources

[12] OECD, UN Environment and World Bank Group, 2018 *Financing Climate Futures: Rethinking Infrastructure* http://unepinquiry.org/wp-content/uploads/2018/12/Financing_Climate_Futures_Rethinking_Infrastructure.pdf describes the radical shift of investment required to promote low-carbon, climate-resilient infrastructure as a way to limit the impact of climate change.

economic sectors. Promoting circularity does not necessarily require high-tech solutions or approaches. Of primary importance is the overall mind-set to be adopted by public authorities, private sector and citizens. This means a clearer focus on reducing the input of materials into products, re-using products and product components, recycling materials and minimizing (and treating) waste. UNEP, ITU, UNCTAD and UNIDO could take the lead for this strategic direction, in partnership with organizations such as the Ellen MacArthur Foundation and others.