

12 May 2020

MEMO

To: HLPF Secretariat

From: David Obura, CORDIO East Africa

Signature:

Re: HLPF preparatory process - Session: Protecting the planet and building resilience

Protecting the planet and building resilience: pursuing policies, investments and innovation to address disaster risk reduction and protect the Planet from degradation	Global environmental commons
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This document contains my approx. 2000 word response on the questions set by the HLPF Secretariat below. I have not been able to fully reference the literature as is perhaps desirable, and can certainly build this up more strongly. Certainly if the submissions are to be posted publicly, then a round of review and edits would be desirable!

1. Systems transformation

What are the fundamental systems transformations needed to halt nature degradation, reverse loss and manage risk, while eradicating poverty, ensuring food security for a growing population, securing livelihoods and promoting resilience?

There are **two levels of system transformation** that I consider most fundamental. The most proximate transformation is of the **global energy system**, away from fossil fuels that are polluting (both chemically, and of CO₂ as the main greenhouse gas). Modern life is energy-hungry and increasingly so as digitization and electronics become more and more ubiquitous. And while they are ‘work saving’ they come with an energy premium that is high. Newer and renewable energy sources must be cleaner, or else the inevitable growth in energy demand will only cause more damage to earth systems. The more ultimate transformation that is needed is to the **dominant economic model** that drives almost all national economies and the global economy. This is a transformation that is based on human and cultural values, so it is only through value change that this can happen. Currently economic theory is based on a ‘perpetual growth’ monetary model that values consumption and material goods above intangible, cultural and spiritual ‘goods’ in ways that are not sustainable, as evidenced by the Anthropocene.

These two systems are separate but linked, and they magnify one another. It could be possible to transform energy systems without fundamentally changing the value system, though it would be harder and ‘against the flow’. Likewise it might be possible to change the value system without changing the energy one, though it is unlikely that with new values the same energy systems would be retained – changing the energy system would become ‘with the flow’ so in essence easy. But as expressed in the IPAT model, it is the compounding of affluence (economic production system) and technology or energy systems that magnifies the impact or footprint of each individual person on the planet. I have written on this subject- in a very simple expansion on the IPAT model¹ - it has its problems and detractors, but is a simple relationship

¹ Obura, D.O. (2018) The Three Horses of Sustainability—Population, Affluence and Technology. Preprints 2018, 2018120176 (doi: 10.20944/preprints201812.0176.v1).

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that is fundamentally correct.

There are a number of nuances to this simple ‘model’ of two transformations, but fortunately the SDGs sum them up well. They express 17 ‘inalienable’ commitments or rights agreed by countries, as an indivisible whole they express a theory of change relevant to the scope of transformations that is necessary. In essence **the 17 essential transformations needed are expressed in each SDG**. The question posed presents certain goal outcomes (in goals 14, 15, 1, 2, 8 and 12) as given (halting loss, eradicating poverty, etc.) but even they represent transformations achieved. The two I single out above can be re-interpreted as transformations in goal 8 (economy) and 7 (energy). From this perspective, system transformation needs to be achieved in each goal to deliver it. Making this happen requires coherence and consistency across many actors at multiple scales, and delivering this coherence across the transformations needed will be an immense task. But the SDGs provide the essential narrative that is accessible in both technical and laymans terms², and a whole-SDG approach to motivating towards these transformations is, I believe, entirely possible.

With respect to **oceans**, the fundamental transformation needed is away from viewing the ocean as infinite, too big to be impacted, a common property open for all and anything. Because most of its life and processes are hidden below its surface people are blindly unaware of the degree of impacts to date, the sensitivity of ocean ecosystems, and of how important the invisible ocean functions are to everyday life on land for people. This means managing ocean-based activities to cause no harm, bringing in governance of the High Seas and the deep seabed that prevents their misuse, etc.

Specific transformations with respect to biodiversity may be codified in the **2021-2030 Global Biodiversity Framework** as successor to the Convention on Biological Diversity’s Aichi Targets. Scientific synthesis guidance³ has identified the following as fundamental elements for biodiversity goals, and achieving them would signify transformations in humanity’s relationship with nature. Thus:

- No additional loss of critical ecosystems.
- No net loss by 2030 in both the area and integrity of all “natural” ecosystems compared to 2020.
- Increases of at least 20% in the area and integrity of “natural” ecosystems by 2050.
- No net loss of integrity of “managed” ecosystems by 2030, and net gain of integrity of “managed” ecosystems by 2050.
- Reduce the rate of extinction across all species, and minimize the loss of evolutionary history.
- Re-establish population abundance within local ecological communities, rather than increasing total population abundance overall, prioritizing species with key functional roles.
- Address all wild and domesticated species, including the “wild relatives” of domesticated species.
- Current knowledge suggests we should retain a minimum of 90% genetic diversity by 2050.

As a rule of thumb I have heard it said and repeat it here – if we just achieve the ecosystem targets above, we will deliver 90% of what is needed for nature conservation and sustaining its contributions to people.

² Obura, D.O. (2020). Getting to 2030 - Scaling effort to ambition through a narrative model of the SDGs. Marine Policy, 117, 103973. <http://www.sciencedirect.com/science/article/pii/S0308597X19309340>

³ Diaz S. et al. (2020) Synthesizing the scientific evidence to inform the development of the post-2020 Global Framework on Biodiversity. Earth Commission Meeting Report to the Convention on Biological Diversity. Subsidiary Body on Scientific, Technical and Technological Advice, Convention on Biological Diversity, CBD/SBSTTA/24/inf/9.

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2. *Specific actions to drive transformation*

Please describe 2-3 specific, promising actions at different levels that can drive these systems transformations. These actions could relate for instance to scaling up the use of nature-based solutions, sustainable consumption and production, or other approaches. How have these actions helped (or how could they help) break down siloes, support the systemic management of risk, and trigger positive changes in society? How can co-benefits between actions be maximized and the risk in trade-offs stemming from these actions (i.e. negative impacts on other aspects of the 2030 Agenda) managed?

Understand, promote and empower the local – loss of nature, suffering by people and economic losses happen at the scale of experience of individual people and land/seascapes– the places where they live. Thus sustainability needs to be achieved at local scales, and aggregate up towards a global whole. This is strongly recognized now in discourse about Indigenous Peoples and Local Communities (IPLC) in the IPBES processes⁴. While this is necessarily starting with a rights-based approach and culture for people, it also needs to permeate to the local dimensions of natural systems, ecosystem service provision and economy/livelihoods. Current science and technology are more than capable to aggregate up from the local, so critical and first actions are those that ensure local needs and specificities are being met within the global whole.

Invest in natural capital, i.e. restoration – as equivalent and complementary to economic capital. Taking the ocean as an example, it is now clear that there are immense savings and benefits that can be obtained by planning ocean management to achieve multiple targets or benefits, such as biodiversity, food security (fisheries) and carbon sequestration together⁵. Evidence is also now emerging that restoration horizons for marine systems are accessible, with potential for full recovery of most ocean ecosystems by 2050 if the right actions are started immediately⁶. These demonstrate the potential and the need for investing in ecosystems, in this case ocean natural capital, as the foundation for sustainability. The Global Biodiversity Framework for 2021-2030 is very likely to include No Net Loss of ecosystems as a primary element of its goals, which will require effective restoration to counterbalance certain losses; and net restoration by 2050. So investing in restoration actions that are effective, i.e. restore ecosystem integrity as well as area, will be essential.

Develop Science-Based Targets (SBTs) for all – the complexities of the interactions between nature, economy and society, as captured by the SDGs, mean that clear and credible targets for all actors to strive towards are needed – whether they are a country, a city, a company or even a household or individual. Targets are only credible if they are based on science, and specific knowledge about the global and local systems. This is an immense challenge, but SBTs have been developed for carbon emissions to reduce climate change (SDG 13) through the Science-Based Targets Initiative (SBTi)⁷, and are under development for nature (SDGs 6, 14, 15) through the Science-Based Targets Network (SBTN) and Earth Commission⁸.

⁴ IPBES, Global Assessment Report-Summary for Policy Makers, 2019. https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policy_makers_en.pdf.

⁵ Sala E, et al. Reconciling biodiversity protection, food production, and climate change mitigation in the global ocean. Under review.

⁶ Duarte CM, et al. 2020. Rebuilding marine life. Nature 580: 39–51. <https://doi.org/10.1038/s41586-020-2146-7>.

⁷ <https://sciencebasedtargets.org/>

⁸ <http://globalcommonsalliance.org/>

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Logically, they must also be developed for all the economic and social goals, requiring engagement of the relevant expertise and institutions in developing them. A complete package would enable any actor to look at their sphere of influence and the commitments they need to make and benefits they would obtain from setting relevant SBTs, to invest in all the areas needed to deliver them.

3. Means of implementation and the global partnership for development (SDG 17):

Achieving the 2030 Agenda relies on a combination of means of implementation to catalyse action and engagement, harness synergies and reduce tradeoffs. Please discuss the means of implementation, including finance, partnerships, and capacity building, needed to make the necessary transformations. How can science, technology and innovation (STI), including social innovation and local and indigenous knowledge, be mobilized to advance these transformations?

In recent writing I have presented the means of implementation as aspects of three SDGs⁹, as I believe otherwise they remain undervalued and undermined. Good governance (SDG 16), not just partnerships (SDG 17) is a core aspect of the means of implementation. The question focused on STI, which itself is a component of SDG 4 (education), the other goal that is fundamental to means of implementation but also needs to be invested in for its own right. Viewed as goals they receive dual attention a) as ends in themselves and thus for their capital to be built (see item 2b) and b) that this capital is deployed to improve delivery of the other goals.

How to motivate investment in these means of implementation? Like the other goals the capacity to provide the benefit needed (e.g. in a coral reef, high integrity to provide sustainable catch of fish) is a capital asset. And assets need to be invested in to maintain their function, value and productivity, or indeed built up if they are degraded. Thus the same with governance, partnerships and knowledge – they need to be built as primary capital to have sufficient function to support the other goals (e.g. manage fisheries in a coral reef). Viewed as primary capital, it becomes clear that investment and commitment need to be made. Each particular combination of place, people and nature has its SD goals narrative¹⁰ (e.g. a remote indigenous coastal community, or a high density informal settlement in a major city), and investing in the governance, partnerships and knowledge to deliver impact (sustainability, or achievement of all 17 SDGs) is necessary. Given the political will, understanding and expressing each SD narrative and the means of implementation needed should mobilize the transformations needed for success.

4. Covid-19 crisis

What does the Covid-19 crisis reveal about the human-nature relationship and systemic risk creation? How can nature-based solutions contribute to a post-COVID-19 economic and social recovery that is more sustainable, equitable and resilient? What immediate and medium-term steps are needed to ensure that the post-COVID-19 economic and social recovery is sustainable, equitable and resilient. How can we redirect financial flows and direct recovery efforts to create better outcomes for people, prosperity and planet?

⁹ Obura, D.O. (2020)

¹⁰ Obura, D.O. (2020)

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The Covid-19 crisis is ‘simply’ a manifestation of the complex breakdowns that will increasingly occur where a crisis in one sector (in this case health, SDG 3) is driven by breakdowns and cascading impacts from others (habitat fragmentation, economic drivers, urban food systems), with positive feedback loops that magnify consequences back ‘up’ the chain. As explained for mapping transformations across SDGs in my response to question 1, the dimensions of the Covid-19 crisis can be mapped across the goal domains. This also means that emergency responses and ‘resilience-building’ interventions must drive the system towards positive change across the goals. If they push some goals into decline (e.g. as did donating excessive numbers of fishing boats for without due control or accountability after the Indonesian tsunami in 2004) they will just push the system back to the same brink that recovery is supposed to be moving away from. In talking about these responses we are also assuming that we have not been pushed so far over a threshold with the Covid crisis that we can return to a more stable point similar to where things were in the past, and then work to keep within that ‘safe space’. This is the essence of ‘build back better’,¹¹ which calls for the response to Covid-19 to deliver humanity to a more sustainable state and a better pathway towards longer term change, than to try and recreate conditions immediately prior to Covid-19 (which precipitated the crisis).

So in this sense post-covid-19 responses should:

- In relation to biodiversity (SDGs 14 and 15), push away from habitat fragmentation and uncontrolled/damaging wildlife consumption towards maintaining intactness in natural systems, and sustainable and balanced use of species as food resources. The recommendations in question 1 for the Global Biodiversity Framework encapsulate this well.
- Reparation and recovery actions must not impose negative trends on any goals – environmental, social or economic, i.e. must not undermine or devalue capital. That is, in economic recovery (SDG 8, 12), energy systems (7), food provision and security (2), equity and sharing (5, 10), climate impacts (13), water and sanitation (6), etc. it is a simple and critical criterion to assess any responses against an SDG narrative/model for that particular context¹² (e.g. a national context, an international one, or even to local level interventions) to ensure actions have positive co-benefits, or at least are neutral, but with no negative ones.

¹¹ UNISDR. (2017). Build Back Better - in recovery, rehabilitation and reconstruction. UNISDR.
https://www.unisdr.org/files/53213_bbb.pdf

¹² Obura, D.O. (2020)