Curbing losses in biodiversity through SDG 17, What the key players think and are doing?

Iranah, P., *PhD*

In 2022, the World Wildlife Fund published their Living Planet Report. In it, their Director General, Marco Lambertini, advocated that "[w]e *need nature positive by 2030 – which, in simple terms, means more nature by the end of this decade than at its start*". This advocacy comes with a backdrop of declines in population numbers, reduced connectivity across habitats and landscapes, and declines in the survivability of species across all taxa. In 2018, work published by the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) redefined what we used to call "ecosystem services" as "Nature's Contributions to Peoples" (NCP), to emphasize that benefits we derive from nature are dependent on social, economic but also cultural contexts[1]. Inherent to this redefinition too is the recognition that nature does not just bring benefits to people. NCP thus refers to "*all the contributions, both positive and negative, of living nature to people's quality of life*".[2] While some contributions are obvious and fairly well known to many, like provision of freshwater and clean air, others are prone to the policy discourses held by decision-makers, resource owners, and resource users. For example, discourses can create a perception that off-setting deforestation in an old-growth forest with planting of several native species in high densities in another area, is adequate. However, any new plantation will not be able to offer the same range of functions and dynamics of an old growth forest. Similarly, overuse of antibiotics and cleaning products, while promoted with good reason for public health, is leading to appearance of multidrug resistant bacteria in tap water of European countries[3]. NCPs can therefore differ based on geography, time, political context, type of recipient of the contributions and the pressures being exerted on natural systems.

In Mauritius, degradation of land and seascapes with ensuing impacts on NCP are all-the more compounding because of the size of the territory and its population density; Mauritius being the fourth most densely populated small island developing state worldwide. Our natural assets range from reef-protected lagoons, basaltic substrate that enable fresh groundwater aquifers, to patches of native forest with high levels of endemicity. That same endemicity is what enables Mauritius to be part of the

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[1] Díaz, S., Pascual, U., Stenseke, M., Martín-López, B., Watson, R. T., Molnár, Z., ... & Shirayama, Y. (2018). Assessing nature's contributions to people. *Science*, *359*(6373), 270-272.

[2] Diaz et al., 2018

[3] Abkar, L., Moghaddam, H. S., & Fowler, S. J. (2024). Microbial ecology of drinking water from source to tap. *Science of The Total Environment*, *908*, 168077.

Madagascar and Indian Ocean Islands Biodiversity Hotspot.[4,5] Other islands of the hotspot include Seychelles, Comoros, Reunion and Rodrigues.

On June 26, 2024 Casela Parks , subsidiary of Medine Ltd. (with economic activities in property development, agriculture, leisure and tourism, and education), hosted a workshop on the theme "Biodiversity – Achieving a Nature Positive Future", in collaboration with Cap Business Ocean Indien (Union of the Chambers of Commerce and Industry of the Indian Ocean, a professional organisation with memberships spanning Mauritius, Reunion, Madagascar, Mayotte, Union of Comoros and the Republic of Seychelles). The objective of the workshop was to offer a space for actors of the private sector and the research community to communicate and find avenues for collaboration towards addressing shared challenges in biodiversity conservation for the island and the region, emphasising SDG 17 Partnership for Goals.

While the first half of the workshop presented perspectives and case studies from a range of key speakers in a roundtable format, the second half of the workshop allowed for interactive sessions across three groups of participants, ending with a wrap-up session of key take-home messages and recommendations. The interactive session took the form of a round-robin, where two pre-selected speakers were assigned to one of three groups of participants and would animate discussions on their topic for 15 to 20 minutes, before moving to the next group. Topics selected for each group were "Communication and Collaboration" (speakers Uma Jokhun and Benoit de Lapeyre), "Project Planning" (speakers Xavier Koenig and Manoj Vaghjee), and "Ensuring Project Success" (speakers Ghanishta Seeburrun and François Baguette). Notes from each group as they discussed the three topics were recorded on site.

The topic of communication and collaboration generated the largest range in input from participants. The importance that should be attributed to investing in awareness and education of residents and locals for project buy-in, was recurrent across the three groups. Various participants highlighted that involvement of stakeholders, initially for awareness purposes, can offer opportunities to maintain conversations that later empower them to be collaborators. This type of recommendation is reflected in the work of various researchers, for example Nijamdeen et al. (2023) conclude their work in Sri Lanka by recommending that for such a shift, initial steps could include communities negotiating mangrove management problems with the village councils, which then compile inputs on an e-forum where all mangrove management stakeholders can participate[6]. A last key input from participants to the workshop on this

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[4] https://www.conservation.org/priorities/biodiversity-hotspots

[5] Myers, N., Mittermeier, R. A., Mittermeier, C. G., da Fonseca, G. A. B., & Kent, J. (2000). Biodiversity hotspots for conservation priorities. *Nature*, 403(6772), Article 6772. https://doi.org/10.1038/35002501

[6] Nijamdeen, T. W. G. F. M., Ratsimbazafy, H. A., Kodikara, K. A. S., Nijamdeen, T. W. G. F. A., Thahira, T., Peruzzo, S., ... & Hugé, J. (2023). Mangrove management in Sri Lanka and stakeholder collaboration: A social network perspective. Journal of Environmental Management, 330, 117116.

topic was recognizing that actors (private sector or otherwise) need to learn mechanisms of collaboration and engagement processes. Papers, books, blog posts and even Youtube™ videos abound on stakeholder analysis and stakeholder engagement, all of which will have common core elements, such that information on the how-to-engage is not hard to find. Establishing good practices of engagement relevant to the socio-economic and geographic context of a project location, is however harder to do. My recommended readings on stakeholder engagement include the following:

- An open-access peer-reviewed paper titled "The importance of understanding the multiple dimensions of power in stakeholder participation for effective biodiversity conservation" published by Lécuyer et al. this year (https://doi.org/10.1002/pan3.10672)
- Best Practices for Stakeholder Engagement in Biodiversity Programming, published in 2018 by USAID (https://biodiversitylinks.org/projects/completed-projects/measuring-impact/resources/best-practices-for-stakeholder-engagement-in-biodiversity-programming.pdf)
- Biodiversa Stakeholder Engagement Handbook, published by the European Biodiversity Partnership (https://www.biodiversa.eu/research-funding/guides-capacity-building/stakeholder-engagement-handbook/)
- Stakeholder Engagement Guide for Nature-Based Solutions, published by the United Nations Global Compact CEO Water Mandate and the Pacific Institute in 2022 (https://pacinst.org/wp-content/uploads/2022/11/CEOWater_SEG_Final.pdf)
- Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets, published by the International Finance Corporation in 2007 (www.ifc.org/stakeholderengagement)
- UNDP Guidance Notes on the Social and Environmental Standards (SES) for Stakeholder Engagement, updated July 2022 (https://ses-toolkit.info.undp.org/stakeholder-engagement-and-response-mechanisms)

The second topic on project planning allowed participants to make note of several good practices. First good practice to come out of the group discussion was to "know your site" in terms of data availability, data gaps, and issues or problems that are most critical or pertinent. Linked to this is assessing the legitimacy and specificity/broadness of the data available and understanding the story it tells. Second good practice is "know the global issues", with particular emphasis on international commitments, and understanding terminologies that help make the link between the project and the scope of funders e.g., ecosystem-based adaptation, nature-based solutions, land degradation neutrality, drivers of biodiversity loss, among others.

One easily available resource I recommend on that aspect is to look at the glossaries used by large multi-national bodies involved in the environment e.g., the UNEP Glossary (https://wesr-staging.azurewebsites.net/glossary/), the IPCC Glossary (https://apps.ipcc.ch/glossary/) and the IPBES Glossary (https://www.ipbes.net/glossary). Additionally, I recommend that terminologies that will be commonly used in a project planning and development process be listed and defined in an actor's own glossary system, translated (if needed) and shared with their stakeholders. Another good practice coming out of the group discussions was to involve stakeholders at the planning stage, and not just during implementation. Fourth good practice was to acknowledge the background of stakeholders and the forms of knowledge they hold that may bring value to a project. Local and traditional or informal knowledge of a site, patterns in an ecosystem, practices, or culture, is often gender dependent as some forms of knowledge are orally passed down either female or male relationships (mother-daughter or father-son). Over time and increased gentrification and urbanisation, knowledge holders are more advanced in age with overlapping health, mobility and communication problems that can make sharing knowledge difficult. Fifth good practice was to properly map project schedules and overall timeframe, with business financial calendars to allow for payments and invoices to be processed without unnecessary delays. Sixth good practice is to inventory permitting needs for all projects and the relevant authorities to which applications and requests for permissions must be made. With respect to issuance of permits, understanding processes and timelines is important as different Ministries will have their own chain of command, fees and application processes, and they unfortunately communicate poorly with one another. The last good practice is therefore to seek collaborations with non-governmental organizations that have had experience planning and implementing similar projects and have already secured permits and/or relevant permissions from relevant authorities for their actions.

For the third topic, "ensuring project success", participants discussed the importance of developing evaluation and monitoring methodologies for their projects from the project planning phase and to revisit those as the project progressed. Early-stage and continued efforts to engage stakeholders also serve to ensure long term sustainability of projects. Early and transparent identification of impacts and benefits on communities and local environments of a project, provide benchmarks for project evaluation and monitoring in terms of assessing success of mitigation or improvement measures. My reading recommendations on project impact assessment, and development of evaluation and monitoring indicators, for any actor, are

- The Impact Assessment Guidebook, published by Connecting Nature (https://connectingnature.oppla.eu/product/24746)

- UNEP's Monitoring, Evaluation and Learning Strategy and Action Plan, published in 2020 (https://www.unep.org/resources/policy-and-strategy/monitoring-evaluation-and-learning-strategy-and-action-plan)
- Developing Monitoring and Evaluation Plans: A Guide for Project Design published in 2020 by the Secretariat of the Pacific Regional Environment Programme (SPREP) (https://www.sprep.org/sites/default/files/documents/publications/developing-monitoring-evaluation-plans-guide.pdf)
- Guidelines for Project Monitoring and Evaluation published in 2020 by the Asian Forest Cooperation Organization, and which includes useful templates towards the end of the document (https://afocosec.org/wp-content/uploads/2020/12/Guidelines-for-Project-Monitoring-and-Evaluation-G-2-20R-All.pdf)

The group recommended creating and using community officer roles within organisations, whereby these officers are tasked with creating and maintaining relationships with stakeholders throughout the year and across multiple projects or operational needs. For the discussants, project success also depends heavily on the common and shared values of the project developers and how well these are reflected in the project, and on the creation of trust across institutional, financial and community stakeholders. Financial success of a project can be ensured by seeking long-term funding sources and aligning project proposals with successive open calls to secure means of co-financing or for carrying on the work past the lifetime of any one funded project.

Parallel discussions across all three groups highlighted the need for greater institutional synergy, especially from the public sector to facilitate private sector engagement. Participants highlighted the need for scientific research to be made available in accessible and layperson formats, a good example of which is the Revue Gecko (https://revue-gecko.com/), currently funded under Project Varuna by the Agence Française de Développement. The magazine, now working on its third issue, is publishing stories of communities and researchers engaged in biodiversity conservation across WIO islands. Another resource is the ECHO Platform (https://www.linkedin.com/company/the-echo-platform/), a collaboration between the Pole of Research TIBEC (Tropical Island Biodiversity, Ecology and Conservation) at the University of Mauritius, and a local non-profit Nature Yetu, and which is actively using social media to communicate on restoration projects and conservation research. Participants enquired by the availability of conservation guidelines. The Government of Mauritius, under a UNDP-funded project (the Protected Area Network Project), developed a "*Good Practice Guide to Native Vegetation Restoration in Mauritius*", published in 2018 and which may be made available upon request from the National

Parks and Conservation Service (NPCS). Those guidelines however are unlikely to reflect research findings published since. The Western Indian Ocean Marine Science Association (WIOMSA) published "*Guidelines on Mangrove Ecosystem Restoration for the Western Indian Ocean region*" in 2020 (https://www.wiomsa.org/publications/guidelines-on-mangrove-ecosystem-restoration-for-the-western-indian-ocean-region/), The Centre de coopération internationale en recherche agronomique pour le Développement (CIRAD) of La Reunion is currently working on their latest guidelines for forest conservation and restoration, which is expected to come out later this year.

Take-Home Messages and Recommendations

During the wrap-up session, participants submitted the following take-home messages and recommendations:

1. The private sector has enormous lobbying power with institutions that it should use to enhance restoration efforts.
2. The private sector should be open to hiring and onboarding scientific experts at fair and equitable pay.
3. Seek and obtain necessary training on stakeholder and community engagement processes.
4. Reassess Key Performance Indicators to integrate social and ecological goals.
5. Policy processes need to be more inclusive of community and non-profit groups as they often represent vulnerable voices.
6. The private sector can and should sponsor scientific research as part of the projects they support and facilitate the availability of research data for the business community.
7. The public sector processes for permit application and requests for permissions needs to be streamlined, clearly laid out and unambiguous.
8. Goals for taking into account biodiversity concerns must translate across the supply chain, even if an organisation is starting with funding external restoration projects through their CSR funds.
9. Non-governmental organisations that do on-the-grounds work must be valued for their experience, expertise and trust established within communities.
10. Large enterprises can have a positive pull effect, in supporting micro, small and medium enterprises that are part of their supply and value chains to engage in nature-positive actions.
11. It is time for a paradigm shift where sustainability is seen as a form of corporate citizenship, not just a communication goal.
12. Funder requirements should provide flexibility in allowing project alignment with the country's needs.