

REVAMPING INVESTMENT FOR REGENERATING NATURE



Multistakeholder Forum initiated on
January 18, 2023, WEF Davos, Switzerland

Revamping Green Investment for Regenerating Nature¹

**A Multistakeholder Forum Report
Davos, January 18, 2023**

1. Recommended citation: Andersson, T. (ed), "Revamping Green Investment for Regenerating Nature", A Multistakeholder Forum Report, Davos, Jan 18, 2023.

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Executive Summary

The present report summarises and draws upon the Multistakeholder Forum, comprising a combined luncheon and workshop that took place at Morosani Post Hotel, Davos, January 18, 2023. A number of actors and partners contributed to making the event possible, pulling together diverse competences to ponder the issues and opportunities of revamping investment for regenerating nature.

Multiple instruments are at hand for private sector investment to support sustainable development. The rise of ESG, green bonds, and carbon credits, along with ambitious references to achieving sustainability in corporate reporting, however, are accompanied by concerns of greenwashing. In focus here is the presence of a *disconnect* between the spike in pledges for funding in support of sustainable development, and the relatively meagre resource flows that reach and leverage efforts to remedy the situation on the ground. Various explanations have been put forward for this state of affairs, including the difficulties for investors to internalise the value streams arising from Nature-Based Solutions (NBS), and from regenerating nature more broadly. Meanwhile, high transaction costs in identifying and evaluating viable projects blend with fragmentation and institutional rigidity in putting up hurdles and compromising success.

On the other hand, the report draws on rich experience from multiple actually implemented NBS projects, oftentimes with the EU Horizon research and innovation agenda serving as a critical catalyst. Generally located in urban areas, many cases are accompanied by participatory methods whereby NBS have been co-created by citizens, constructive stakeholder engagement, and the activation or leverage of so-called Nature-based Enterprises (NBE). Digital enablers utilising smart sensors and communication tools have opened for expanded reach as well as targeted inclusion of deprived areas and vulnerable groups, countering costly polarisation and addressing social issues. Throughout, however, the scope for furthering demonstrated success will greatly depend on enhanced financial and corporate sector engagement.

The report is structured around short summaries of presentations made at the event by invited speakers, of the group discussions which set out to tackle specific outstanding questions, and also of project agendas demonstrating examples of what may be leveraged and diffused for application on a greater scale. Finally, the last section sets directions for work under way to arrive at a systemic, collaborative “Impact Investment, Financing & Development Model”, capable of inducing and rewarding investors for contributions to sustainability while also supporting people and nature on the ground.

1. Introduction²

Nature is the source of our entire existence. The value streams are multifaceted, long-term, partly not visible. To a high extent, they are unrecorded by markets, not attaining any price in our daily life, or in the regular decisions pursued by business, public authorities, consumers, or others. The Multistakeholder Forum “*Revamping Investment for Nature Regeneration*”, a side-event to the annual World Economic Forum which took place in, Davos, Switzerland, on January 18, 2023, addressed the causes and consequences of this situation. The 60+ participants in the combined luncheon and workshop represented diverse competences, bearing on politics, market forces, scientific disciplines, and realms of civil society. They particularly considered what can be done to bring us to a different situation, capable of enabling us to realise better outcomes.

A great number of scientists call for public as well as private decision-makers to face up to the evidence that our natural heritage has become seriously compromised, and thus to take counteraction on several fronts, e.g., to curb greenhouse gas emissions to the atmosphere, protect biological diversity, hinder waste generation from spinning out of control, and so forth. A growing number of policymakers, on their part, regularly issue statements that significant resources are to be allocated in support of sustainability. Basically, all governments have committed to do their part in achieving the Sustainable Development Goals (SDGs) of the United Nations. Some members of the general public, meanwhile, adjust their personal behaviours, such as shifting from fossil fuel to renewable energy, reducing or terminating consumption of meat while purchasing eco-friendly food items, or refraining from air travel. Some members of civil society tie themselves to trees or disrupt highly visible public events, e.g., in the field of sports or fashion, while crying out for policy and businesses action.

Yet, there is little agreement where all this leads. While many small steps are taken, and some indicators register improvements in particular regions or areas of activity, many of the worst contributors to climate change or the degradation of our natural environment in other respects, continue unabated. Through their mainstream operations, the financial and corporate sectors are directly involved in most of the investment, production and consumption decisions that shape the global economy. Thus far, demonstrating care for sustainability has not quite been

² The document has been edited by Thomas Andersson, on behalf of the co-organisers and partner organisations contributing to the event. The support of the Global Commons Alliance is particularly acknowledged and special thanks to Barbara Dubach for moderating the event. For comments or communication on the document and related activities, e-mail Thomas.andersson@iked.org, or info@globalforumstf.org

expected to feature among their top priorities. Initiatives in this regard has rather been viewed as a sort of side-activity, typically appearing as Corporate Social Responsibility (CSR).

Mainstream economics and corporate governance literature strenuously argued for many years that businesses are about maximising profit/shareholder returns, period. Governments, meanwhile, were expected to look after the public good. The tides have turned, however. More and more enterprises take the shape of NBE which perceive their mission as a blend of “acting green” and running a business. Meanwhile, financial institutions and corporations experience increasing pressures, popping up from all sorts of directions, to cut carbon emissions as well as act sustainably in other ways. Not only the organisation itself counts, but so does damage caused by the activities of others that it engages with one way or another. Banks and the financial sector more broadly meet with demands to de-invest in clients viewed as contributing to climate change or doing harm in other ways. Industrialists are required to scrutinize their supply chains. Rather than handling such matters through a CSR-department, they have become intrinsically engulfed with core business strategy and top management decisions.

Various instruments have arisen, offering pathways for financiers and corporations to “go green”. These include issuing of green bonds, or so-called sustainability-linked-bonds (SBLs), certification of carbon-credits, and other means to prove that the carbon footprint of a particular organisation has been diminished and is on the way to be phased out. Propelled notably by EU policy, such as the Green Deal, financiers as well as the corporate sector are under pressure not just to report on contributions to sustainability but demonstrate commitment to carbon neutrality as well as other green behaviours, applying to various strands of activity and external relations.

Box 1: Existing ESG frameworks and standards

- SASB was established to connect business and investors on the financial impact of sustainability (specific treatment is elaborated for exploration & production, midstream, and refining & marketing)
- GRI aims to constitute global best practices for reporting publicly on a range of economic, environmental, and social impacts. GRI standards are linked to the UN SDG goals
- TPI segments companies based on their disclosure of metrics related to climate change as relevant by sector, applies metrics to evaluate a company's performance
- TCFD is primarily concerned with climate related metrics and targets, developed with a view to facilitating information exchange within the industry and with investors.

The most influential reporting and certification mechanisms are those associated with so-called ESG (Environment-Society-Governance) compliance. According to some estimates, about half of all financial assets worldwide may be reckoned as having achieved eligibility. Box 1 provides a snapshot of the main frameworks and standards at hand, all backed up by a hefty list of consultants and other bodies involved in auditing, verification, and certification.

Although most of these vehicles may be viewed as still in an early stage, a striking insight takes hold. Compared to the scope of the attention that has arisen, amount of work pursued, and the range of activities unfolding, much less can be said about the results of all this. That discrepancy, in a nutshell, stands at the heart of the present report. By summarising what was presented at the event “*Revamping Investment for Nature Regeneration*”, it confronts the disconnect between today’s market response to the outstanding challenges of sustainability, and what conditions, actions, and impacts are actually observable on the ground.

BOX 2: Revamping Investment for Regenerating Nature	
Date & Time	January 18 th , 2023, 12:30 – 14:30
Location	Morosani Post Hotel, Promenade 42, 7270 Davos Platz
Organisers/ partners/ secretariat functions	<ul style="list-style-type: none"> • EU NBS Task Force of Horizon Research and Innovation Projects, with focus on Governance, Business Models and Financial Mechanisms • Global Commons Alliance (GCA) • InTent • Water and Humanity • Global Forum, Shaping the Future • ECE Excellence Center on Smart and Sustainable Cities, University of Geneva • IKED
Targets audience	<ul style="list-style-type: none"> • Cities • Corporates • Government representatives • Financial institutions, investors • Nature-Based Enterprises • Entrepreneurs, civil society
N° of participants	60
Moderator	Barbara Dubach, CEO and founder, engageability and Board member, Innovate 4 Nature

The presence of such a disconnect indicates that something is out of a hand and needs to be corrected. We cannot continue as is – a new kind of initiative is required, for “green” investment to become “green”. That, in a nutshell, was the theme addressed at the Davos event of January 18, the setup of which is outlined in Box 2. The next section presents some brief additional perspective on the issues. The ensuing sections summarise each of the individual presentations, as well as the outcome of the group discussions that took place. The last part of the report briefly concludes and outlines the agenda ahead, notably to proceed with work to build and launch an operational model and action plan revamping green investment for real results.

2. Brief on the Issues

We are now more than eight billion people populating Earth. Our combined influence on the natural environment surrounding us has become pervasive and keeps growing. This should not come as a surprise. The benefits of nature are multifaceted, partly long-term, and partly indirect. They cascade in all directions and magnify through synergy and complementarity. This implies, as well, that the full benefits are invisible to humans, and impossible to capitalise on by any individual person or organisation that chooses to invest in the conservation or perpetuation of natural assets.

Against this backdrop, in today’s world, we experience under-investment in nature, under-protection of the very basis of our existence. Governments/institutions, businesses and other organisations, people as consumers or voters, undertake disproportionately little effort to protect and invest in nature, when related to the benefits at stake. There are exceptions, of course, where traditional knowledge is at play, as in the case of indigenous peoples living to a high degree in symbiosis with nature and doing what they can to defend the basis of their existence.

The presence of issues is now widely realised, although the totality and pace of the damage remains controversial. This is as the results have become highly visible in so many ways. Systematically changing weather conditions, including the intensification of storms, floods, and other extreme weather events, belong to those attaining most media attention, and causing concerns for the insurance industry, among others. There are many other signs too, appearing at various levels. Among them, the disruption of water cycles and the loss of fertile lands, waning biodiversity, the shrinking presence of wildlife, also of insects that used to buzz around us, the disappearance from the restaurant menu of kinds of fish that we used to eat, the presence of

plastic and other pollutants wherever we turn – whether travelling to the other corner of the world, or looking inside our own organs --, decreasing quality of water and air, and so forth.

So, what is being done, not just said, to address the situation? What can be done, and by whom? The presentations, discussions, and conclusions summed up in this report, centre not just on outstanding issues, but also on the presence of untapped opportunities. The same ingenuity that made people conquer the world, exploit resources and degrade nature, puts us in the position of working out solutions and putting them to work in protecting, or *regenerating*, nature. A particular opportunity in this context is that of “Nature-Based Solutions” (NBS), through which people, societies, and organisations, can draw on and realise nature’s wealth of value streams. More generally, the impetus and role of technology as an enabler of solutions - rather than a solution in itself – stands out as critical, including when it comes to diffusing information, facilitating collaboration, speeding, and scaling activities with high potential. Yet, what technology can achieve, one way or the other, depends on people.

It may be argued that lasting damage in a particular context mirrors some sort of obstacles, lack of information by those at the losing end, and resistance to change by those responsible – in a context of weak governance lacking resolution and support for solutions to be put in place. A peculiar aspect of human disposition is a preference for uniformity, a liking of interaction with those who may look and think “the same”, limiting collaboration to narrow circles. From that follows a remarkable state of fragmentation, that easily invokes animosity, or neglect, to the consequences for others. With the information revolution, the world gets drowned in codified information. In terms of volume, the flow of newly produced digital data entering our collective joint knowledge banks quickly dwarf all information stacked into printed books since the beginning of time. The ever-expanding codified data can easily be accessed and processed by AI, which is about to alter the boundaries of the achievements by men vs. machines. Yet, the information that is most valuable in a particular situation is often not accessible that way, but is tacit, belonging to individual people. Tacit information is transferred where there is trust. Personal values and relations continue to shape critical information exchanges and use, even when other circumstances change.

Big organisations – public, private, academic – tend to compartmentalise by narrowly defined spheres of responsibility and competency. Sharing of joint concepts along with the specialisation of language and human networking go together in underpinning sharper specialisation along with in-depth learning and achievement. This is at the heart of the human knowledge revolution. Yet, where balance is missing, putting barriers to horizontal exchanges, and limiting the inflow of

ideas and impulses from outside, the opportunities for learning and value-creation will be severely compromised.

Even if many solutions are at hand, it is also critically important with mechanisms and avenues for developing new ideas, inventions, innovations, and get them through early stages of development. Engaging in what is “new” is inherently risky, presenting entrepreneurs and investors with particular challenges. While this is not in any way limited to NBS and ventures battling to achieve sustainability, but widely applies to innovation dynamics and early-stage activity, inaugurating the means to internalise the value streams that emanate from nature tends to call for a particular drive, as well as the capability to overcome special hardships. Their rise and progression will have to evolve in sync with a tailored blend of financial instruments and other supportive mechanisms.

A growing stock of experience points to the importance of cities, or local communities, in framing prosperous conditions in such respects. The smaller distance between decision-makers, citizens, enterprises, and innovators facilitates identifying and coordinating responses to outstanding issues. This includes the process surrounding NBS, including framing of conditions conducive to fruitful contributions through innovation, entrepreneurship, and NBE. “Smart” solutions, made possible by big data, IoT, AI, and so forth, provide seamless tools that may similarly be adapted and applied with greater effectiveness and relevance in the local context. Success in these respects much depends on governance, however. A common understanding is taking hold, that people need to be welcomed to actively engage, “co-create”. People’s knowledge and perceptions of what constitutes a local problem is critical for the selection, design, and implementation of a solution. Beyond that, inclusion, not just for the “usual suspects”, as an afterthought or to just be on board, but for people to be in driving seat from early on, brings the benefits of experienced ownership, to be part of the solution – not represent the problem.

Despite the potential for action, as things stand, too little is done to embark on NBS, as well as to put breaks on nature’s decay more broadly. What does it take for transformational change to happen?

A vehicle that has proven capable of diffusing and taking hold is that of ESG (Environment-Society-Governance) investment. Following a remarkably rapid rise over a few years, ESG compliance is becoming an increasingly important trademark, a license to attract capital, debt as well as equity, at a lower cost, to enter or remain as part of vital supply chains. The force with which ESG has spread, and the difference it makes for economic transactions, reflect the seriousness with which markets have come to regard to threat of undermining sustainability. Yet,

we keep observing a mismatch, a disconnect, between the resources and economic consequences brought by the ESG label in the market, and what impacts are generated as a result.

Of course, the subject of funding cannot be addressed in isolation. Policies and institutions matter (globally, nationally, locally), so do people, learning, how people behave, how they connect, collaborate, or do not. The issues at hand are systemic and transformative. Confronting them requires reaching beyond a limited circle of likeminded institutions and individuals.

In order to achieve sustainability, meanwhile, resources need to go where action must happen, while also guided and channelled within a framework supportive of efficiency and relevance for sustainability. This in turn will require capacity building and complementary competences joining forces in collaborative action. Crucially enabling factors may be associated with nature directly, or with people and organisation. At the same time, barriers to viable solutions may have to be identified, and removed. What has proven to work may thereby be scaled and emulated. What is promising, but requires piloting and evaluation, can be tested.

This ought to raise hope. The call for investment, financiers, and corporates to go “green” could and should be accompanied by a framework that has teeth to it. Whether we refer to ESG, green bonds, SLBs, carbon credits, or other financial and market instruments, the question begs itself, how current practices and mechanisms for follow-up may be adjusted, so that a stronger connection arises with impacts on the ground.

3. Summary of Presentations by Invited Speakers

By **Olga Algayerova**: Executive Secretary General of the United Nations Economic Commission for Europe (ECE)

Drawing on our normative and capacity-building mandates, UNECE is working on a variety of issues regarding climate and sustainable development, from inland transport to efficient buildings, from reconstructing cities in war zones to strengthening forests and water policies. To make sure that guidelines, policies, and recommendations are actually implemented, we need to address the funding gap. In many cities, for instance, capacity of cooperation with the private sector, including the start-ups, is still missing.

To that purpose and ahead of COP27 in November in Egypt, we hosted a Climate Finance Forum which tried to facilitate the matchmaking between project sponsors and financiers. Our event, which concerned the ECE region, drew lots of attention and participants from international finance institutions, such as the European Investment Bank, but also industry, finance, civil society and expert circles. The projects portfolio presented at the Forum got very good buy-in from Member States. Projects ranged from renewable energy production to means of energy storage, from waste to digitalization. They are worth a total of \$10 billion as well as two additional multi-billion initiatives on green ammonia and green hydrogen in Kazakhstan. I invite you search them out on our website.

We focused on Critical Raw Materials (CRMs) needed for decarbonizing the economy. We know it is the necessary ingredient of achieving net zero, as without it neither the green energy transition nor digitalization are possible. And yet, somehow this topic has been off the radar in the climate discussion. Our decision to focus on CRMs yielded great dividends. We have very strong interest from the finance sector; and also, strong demand for support from governments.

But our Forum tackled Climate Finance more broadly as well. The key word was transitional finance (“transform instead of divest”). Two key takeaways for me: (i) we need clear sustainability focussed trajectories for sectors such as hydrogen, ammonia, and CRMs, among others. And if we can help countries with both strategy and practice, we will make a real difference for GHG emissions. This is a concrete example of the UN’s advisory role in creating an enabling environment and de-risking investment.

Based on these results, we will keep supporting countries and cities in strengthening their capacity to mobilize resources and investments in various ways, such as through better access to bilateral and multilateral financing, as well as innovative financing mechanisms such as carbon credits, “green” and “blue” bonds or debt swaps.

The tasks ahead are clear. We now urgently need commitments to fund concrete actions. It is now or never. We simply owe it to our planet and, above all, to the next generations.

By **Sasja Beslik**: Chief Investment Officer, NextGen ESG Japan & SDG Impact Japan, Tokyo, Young Global Leader at the World Economic Forum 2011

ESG analysis in general focuses on understanding how company X manages sector specific risks and opportunities (whereas risk management has priority). Sector risks are assigned based on

subjective understanding & interpretation of potential ESG risk having significant or limited potential impact on company financial performance and or valuation.

Financial metrics are not assigned in terms of % of revenue affected by “bad or non-existent” Human Rights policy. Limited information is available on product and or service level, in terms of potential revenue streams aligned with EU taxonomy. Exact numbers enabling true appreciation of financial impact, positive or negative, is currently not available. Estimates can be made, of course, and are used in many cases as a proxy for investment decisions. A company is hence assigned a certain risk & opportunity-profile, which is then translated into alphabetic or numerical rating. Depending on which analytical model the asset manager uses (passive, active, bottom up, thematic, quantitative, etc.), rating and or underlying ESG data can be trenced, skewed, or extracted and transformed (with a large measure of estimates) into the decision-making process of portfolio management.

All investment decisions are forward-looking, i.e., based on expectations that company X will reach or exceed certain targets and, in that process, investors will gain certain profit in reference to the starting point of that investment. In principle, investors using current ESG data sets are making forward-looking investment decisions based on ESG datasets covering past ESG (mostly risk) management performance of the company. Certain ESG data related to information on products & services is limited and, where available, in most cases not connected to a company’s growth strategy in relation to a particular client, geographical area, or market segment. In other words, there is no connection between the way, where, and how, a company plans to grow, and the extent to which a measure of ESG compliance assigned to that company will enable, hinder, or prevent further growth.

Consequently, a typical situation will be that of the CEO of company X communicating in the annual report the expected growth in segment Y over the next 2 years. In relation to that expectation, and thus established goal, representatives of company X have no explicit or implicit or even limited explanation how that goal is related to, helped by, enabled by, or prevented by the ESG framework adopted by the company and also separately reported on.

A challenge at the core of current ESG approaches has to do with the effort to identify how certain aspects of ESG (managed and translated into risks and opportunities), related to the specific company, add value to the company’s business, whereas - at the same time – those same aspects are absent from the that company’s growth strategy at the level of products, services, and markets. While investors argue that ESG compliance adds value to a company in the long term, it remains unclear how. This situation needs to change. Stronger connections need to be

established between what companies actually produce and sell in the market, and how that impacts our ability to transcend to a more sustainable future.

By **Pascal Peduzzi**: Director, UNEP/GRID-Geneva at the United Nations Environment Programme, and Professor at the University of Geneva.

Ecosystems provide a rich array of multifaceted services, broadly referred to as “ecosystems services”. On this basis, investing in the regeneration of ecosystems carries the potential to yield multiple benefits.

Here in Davos, we are bestowed with forests which effectively protect the village from snow avalanches. In the Swiss alps, many roads are protected against landslides and falling rocks by forest. Managing the same by applying “grey infrastructures” would be more costly. The direct building costs represent only part of the equation.

Compare with the case of a wall that is erected for the purpose of stabilizing a slope. The wall has to be engineered and built. After some years it needs maintenance and, eventually, replacement. Meanwhile, a wall does not store CO₂. It has limited landscape value (this is an understatement). It doesn't support much biodiversity. Now, when using a forest for slope stabilization, plants will be capturing CO₂, support biodiversity, have aesthetic value (for all, including tourists), and add space for recreation. Further, plants are self-maintaining and renew themselves naturally. As they require less engineering know-how, the local population are in the position to assume more responsibility. This is sometimes referred as the “no regret option”.

In brief, natural ecosystems are:

- Environmentally friendly
- Cost-effective
- Easy to work with, e.g., go along smoothly with local population
- Low requirement (if any) of maintenance
- Rich in esthetical value
- A robust source of carbon storage
- Supportive of biodiversity
- A source of multiple services

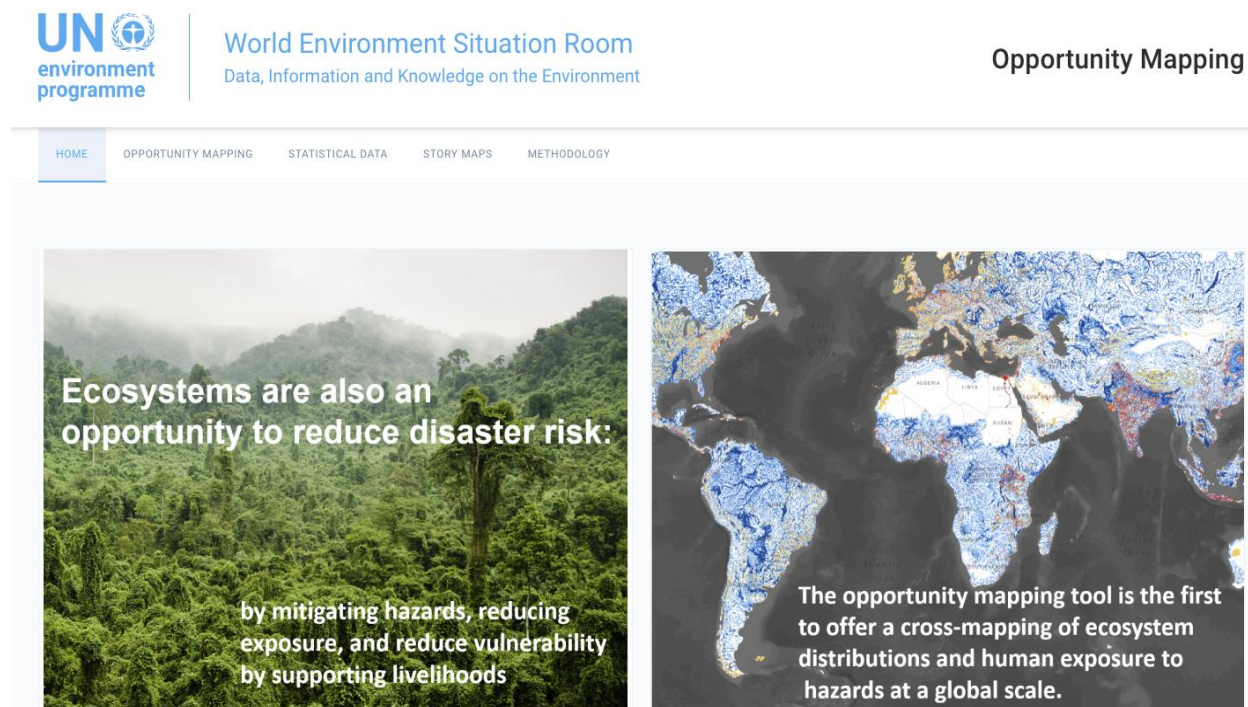
In urban areas, the use of vegetation reduces the risk of “heat islands”. Careful preparations should be pursued, determining the optimal design of urban green areas as suitable for specific

circumstances. Trees further allow the soil to absorb and retain humidity, countering flooding and contributing to replenishing aquifers.

In most cases, the value of ecosystems is grossly under-estimated, or neglected. For instance, the replacement of mangroves by fish farms, or tropical rainforest by palm oil plantations, may result in high immediate incomes for the landowner, but at the expense of the collective, and the long term. Indeed, the monetised revenues in such cases are usually completely inferior to the value streams once provided by the ecosystems in the shape of multiple services benefitting both the local community and wider society, including: CO₂ capture; support of the local climate (precipitation, temperature); water supply; fish reproduction areas, supporting the livelihood of fishing communities and generating incomes for coastal and rural areas broadly, and so forth.

To facilitate the prioritization of ecosystem restoration, UNEP just produced a new platform showing where ecosystems can offer best value for Disaster Risk Reduction. This platform, part of it visualised in Figure 1, it conceived of as “opportunity Mapping”. It can be accessed at: <https://opportunity-mapping.unepgrid.ch/>

Figure 1: Opportunity Mapping at UNEP Platform



Source: UNIP-GRID

By **Erin Billman**: Executive Director, Science Based Targets Network, Leads the Science Based Targets Network of the Global Commons Alliance.

CONTEXT

The transformation required to reach a Nature-Positive future is immense, but it is possible, and it is not only nature that would gain. Collaboration is essential given the diverse connections between actors in landscapes and seascapes where economic activities take place. Conserving nature protects future opportunities for growth. Stopping nature loss and halting climate change are two of the biggest business opportunities of our time. The World Economic Forum's Future of Nature and Business report estimates Nature-Positive transitions could generate up to US\$10.1 trillion in annual business value and create 395 million jobs by 2030.

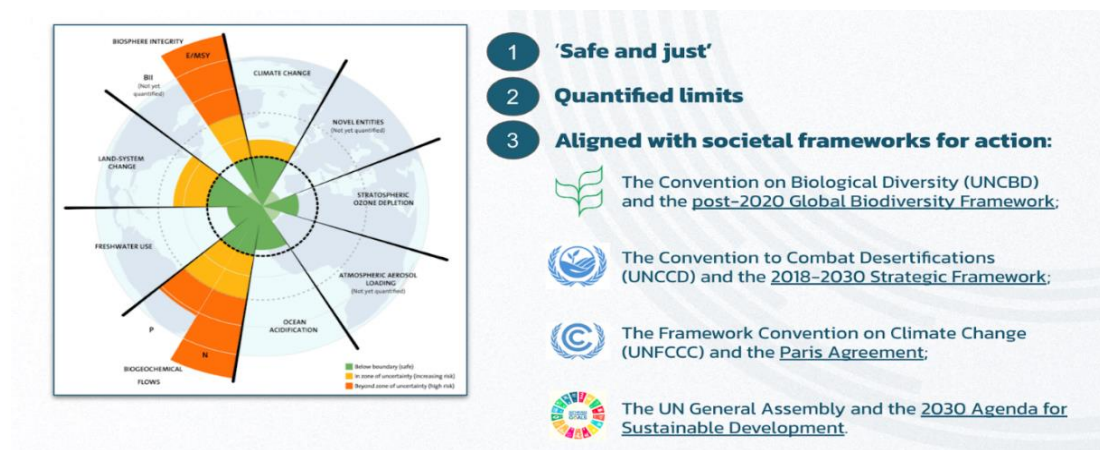
SCIENCE BASED TARGETS NETWORK

Science Based Targets Network (SBTN) aims to enable companies and cities to do their part for an equitable, net zero, nature positive future through the setting of integrated science-based targets. It will do this by:

- Equipping companies and cities with the guidance they need to set integrated science-based targets across all Earth systems. Note SBTN's current focus is on developing corporate science-based targets.
- Building on the progress of establishing corporate science-based targets for climate to achieve widespread adoption of corporate science-based targets on water, land, biodiversity, and ocean.
- Demonstrating significant progress in line with key global policy milestones like the SDGs, and goals and targets under the UNFCCC, UNCCD, CBD, by developing an indicator framework that tracks how SBT setters deliver progress.
- Working to embed the adoption of science-based targets for nature within capital markets by partnering with policymakers, financial institutions and service providers such as benchmarks and credit agencies.

MOMENTUM FOR SCIENCE-BASED TARGETS FOR NATURE

SBTN is a network of 65+ NGOs, business associations, and mission-driven consultancies contributing expertise to collectively define what is necessary for staying within Earth's limits. SBTN is part of the Global Commons Alliance, a network of organizations aiming for societies and the global economy to thrive, sustained by healthy global commons, on a stable planet. At present, 90+ companies, ~60 consultants, and 13 industry coalitions engage directly with SBTN through the Corporate Engagement Program to road-test our guidance. In addition, 30 companies engage indirectly with SBTN through our partner network.

Figure 2: Compliance with Guiding Frameworks

SBTs for nature have been designed to build on and complement related corporate sustainability initiatives. An important ongoing collaboration is that represented by the Taskforce on Nature-Related Financial Disclosures, with a shared goal and focus to align our respective guidance.

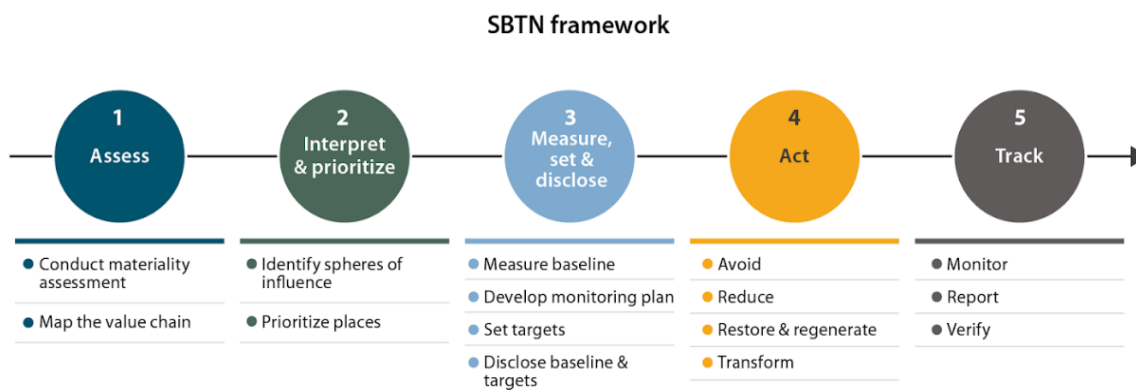
THE SCIENCE BEHIND SBTs

In addition to drawing from the scientific expertise of the organizations comprising SBTN, SBTN works with the [Earth Commission](#), a group of leading scientists (with key authors of the IPCC and IPBES) convened by [Future Earth](#), the world's largest network of sustainability scientists. The Earth Commission's mission is to assess the latest science and define, for the first time, *safe* and *just* Earth system boundaries for people and planet. SBTN and the Earth Commission are core components of the [Global Commons Alliance](#).

The Earth Commission's work will improve upon the Planetary Boundaries framework by mapping out the interconnections between different systems or boundaries, adding a focus on equity and improvements in the quality of life for the most vulnerable. The first assessment has been submitted for peer review and will be published during the course of 2023.

SBTs FOR NATURE V1

As a consequence of this work, companies will be better equipped to address issues related to water use and water pollution, with company targets on water withdrawals from surface and groundwater and on nutrient loading (nitrogen and phosphorus) to surface water bodies. Such targets will help reduce companies' impacts on water use and pollution in freshwater systems.

Figure 3: Five-step Process for Setting Science-based Targets Related to Nature

Land targets will focus on the pressures of land occupation, conversion, and degradation, alongside GHG emissions (signposting to SBTi's FLAG methods). These targets will help reduce company contributions to the IPBES drivers of land use (and use change), resource exploitation, pollution, and climate in terrestrial systems.

V1 WILL BE THE NEXT STEP ON THE PATH TOWARD COMPREHENSIVE TARGETS

Subsequent releases of SBTs for nature, beyond 2023, are set to increase the scope of issues that SBTN can cover with its guidance, in line with the latest science and development within the Network. For cities, guidance on nature SBTs is to follow, pending capacity.

These outputs form part of a process to put in place better tools and practices for various actors, notably cities, to set measurable targets and thus to evaluate outcomes.

4. Summary of Six RoundTable Discussions

An important part of the event consisted of six parallel Roundtable discussions, each addressing a specific theme and guided by pre-set questions. Each roundtable had about 10 participants. Below, the main outcomes are summed up, mostly based on the write-ups by rapporteurs, with adjustments incorporated by the editor following amendments by others who took part in the respective discussions. Each section is labelled in accordance with the theme addressed. The pre-set questions are stated in a box at the opening of each sub-section (summarised table discussion).

4.1 Green Investment Clout

The following questions formed the starting point for the discussion at Table 1³:

*Question 1: What key **factors explain divergence** between financial instruments in support of green investment (ESG frameworks, green bonds, Sustainability-Linked Bonds (SLBs), carbon credits....) and the actual impacts? What elements can unleash some of the untapped potentials?*

*Question 2: How can **verification and certification** of financial and corporate behaviours strengthen action on the ground in support of regeneration? Further, how can positive experiences translate across different stages of development of national data ecosystems?*

Initially, participants exchanged views whether there is indeed a divergence between the availability of instruments for green finance and the resulting impact. Based on this discussion, the group agreed that is so. Suggested reasons put forward for this situation included lack of bankable projects, high overhead costs charged by intermediaries, and challenges with mandatory requirements imposed by governments. These were pointed to as examples of factors which, taken together, lead to inadequate outcomes.

Participants further noted that recent changes in the perception of many ESG policies and practices, particularly among conservative voters in certain developed jurisdictions, highlight the presence of rifts within nations as much as transnationally. Observed U-turns by many asset managers on their commitments were viewed by the participants as confirmation that scepticism regarding the outcomes of ESG is well founded. In many cases, ESG in effects serves as a marketing tool aimed at targeting certain geographical or demographical segments of relevance to specific funds. One commentary referred to offers as just “ ...Blackrock trying to sell their services to the Europeans...”.

Recent moves by European and US regulators have partly aimed at putting an end to practices of greenwashing, while also blending sustainability concerns with trade and investment issues. Where these processes will lead remains to be seen. Participants nevertheless noted signs of progress, with industry entering a stage of maturing where more and more actors are ready to collaborate in underpinning market mechanisms and investment behaviours conducive to sustainability.

³ Danil Kerimi, Independent Oversight Advisory Committee, World Intellectual Property Organization, drafted this summary, which has been processed following complementary input from other participants.

As for verification and certification, participants concluded on the need of introducing investment vehicles and market instruments that meet with such demands. There is a need of engaging in collaborative efforts to arrive at practices that are more ambitious in terms of measuring impact and also more reliable. At the same time, the participants noted the need of avoiding undue burdens with reporting for the individual organisations. Ways will have to be developed for those seeking to engage in schemes for channelling and certifying green investment to plug more seamlessly into a robust data ecosystem which is efficient, up to the expectations of sound reporting standards, and also successful in closing the door to greenwashing. The more effective and rewarding such a system becomes in these respects, the more costly it will become for those that choose to stand aside, and thus fall behind.

4.2 Impact and Motivation

The following questions formed the starting point for the discussion at Table 2⁴:

*Question 1: What **initiatives and motivating factors** could spur financial institutions to adopt more effective requirements on Nature-Positive investments/actions?*

*Question 2: How can the degree of compliance with a Nature-Positive Economy (NPE) **impact capital costs**, for debt as well as equity?*

*Question 3: What tools, frameworks and entities could be utilised to **realise greater impact and ambitiousness of green projects**?*

The participants started out reflecting on investors' point of view when it comes to NBS and sustainable development. The investors at the table were placed at the centre of the discussion with a view to understanding their drive when it comes to achieving sustainability, what may stand in the way, and how the hurdles can be overcome.

The answers of the industry representatives suggested that strong attention is given to process. Candidate projects are subscribed to internal processes, pursued in accordance with standard procedure. Only projects that are robust, with high expected returns, will pass. At the same time, the search is on for taking on more, based on lessons from best practice how to engage in viable projects. Priorities include how to identify and work with constructive Key Performance Criteria (KPIs) for sustainability, and how to communicate success. There is genuine interest in achieving

⁴ This summary draws on the report of Diane Henny, Braillard Architects and Sustainability specialist | Singer | NGO.

an expanded and more successful agenda, although thus far this generally does not translate into much. Moreover, ambitions seem to be lower where perceived hurdles are judged to present tangible risks, with investors demonstrating little appetite to invoke a portfolio strategy where high returns from a few successful projects could compensate for losses inflicted by others.

Of high importance for spurring financial institutions to adopt more effective requirements when pursuing and requiring Nature-Positive investments/actions, is what applies in terms of time horizon. Where markets and managers squarely put the priority on short-term profit, investment resulting in partly indirect, long-term returns will not happen. The adoption of a longer time horizon requires paying attention to a broader set of actors and objectives. Organisations that value well-being, of employees as well as in surrounding society, will rethink. The group recognised the potential weight of the aggregate influence emanating from a spectrum of actors, including customers, advisors, partners, along with the general public, and the media.

Given a tilt in overall attitudes towards placing greater weight on well-being (emotional, mental, holistic) pertaining to various aspects of life, financial institutions will become more prone to measure and evaluate real impacts of “green” investment on the ground. The engagement of professional consultants and psychologists championing a corporate culture that enhances a healthy lifestyle is important. Yet, to be effective, transformational schemes in this regard must entail serious engagement by both management and employees, spanning all levels of the organisation. For the long term, the attitudes professed in education, ranging from primary to undergraduate level, and also training for professionals, must evolve accordingly. This includes what methods are applied and the organisations that evaluate the quality of education, as well as those that rank universities and university programs. Business school rankings must particularly take into account a broader set of measures and calculations, where the salary and monetary compensation of an alumni is weighted with what positive impact he or she exerts on society, nature, and by way of climate mitigation.

As for capital costs, it is already well-known that a general “greenium” effect has taken hold in many parts of the world, meaning that the classification of investment as “green” does impact on capital costs, for debt as well as equity. Whether that actually reflects behaviours and actions compatible with a NPE, i.e., where production and consumption are in harmony with natural regeneration, is another thing. Measurement, verification, and validation need to pick up what relations apply and have those feed market rewards vs. penalties. Impacts on capital costs belong among the most effective, applying to both debt and equity. The former may be said to invoke a “passive” stance though – meaning that creditors value and reward debtors that demonstrate real environmental impact – in contrast to equity where investors take a direct stake and opt to

be part of, as well as possibly contribute directly, to the journey. How all this is best engineered requires further examination, engaging financial agents, investors, environmentalists, and so forth. For effective outcomes, other additional initiatives should be taken into consideration:

- Ways of measuring and internalising a company's externalities by way of impact on Nature, so they become part of the basis for evaluating the company;
- Calculate prevention/repair plans and their costs in terms of investment anticipated to result from unabated climate change. The insurance market is key in this regard. Governments and financial industry should jointly examine how to achieve greater internalisation in insurance premiums of expected damage of natural degradation;
- Amend urban planning so to enable greater attention is paid and efforts made to innovate in response to sustainability issues.

Adding to the above, changes are required in education and the culture of management, so that the benefits associated with NBS can be perceived and addressed as strategically important, applying to climate mitigation as well as adaptation, the biodiversity crisis, and so forth.

We do not have the time to wait for changes to appear in the long term, however, as we are faced with a severe time crunch. Already in the short term, a combination of re-education and interventions guided by psychology needs to instil mindset change. This must be accompanied by other measures capable of making sustainability count, such as real influences on the cost of capital and terms of investment. The latter will be key to influencing corporate circles.

4.3 Actors and Stakeholders

The following questions formed the starting point for the discussion at Table 3⁵:

*Question 1: Which **key actors**, ranging from local to global, could lead the way in realising agile collaboration and resource provision in nature positive investments?*

*Question 2: How can the role of **science and/or community engagement** be strengthened and mobilised constructively in support of green investment?*

*Question 3: What key enablers of **Nature-Based Enterprises (NBE)** contribute to viable business-models, innovation, and value creation?*

⁵ This summary is based on inputs provided by various participants at Table 3.

In addressing the subject under consideration, participants reflected on a range of actors, exerting influence beyond the arena of national policymaking. The group agreed on the importance of distinguishing between different levels.

At the global level, multilateral organisations pursue diverse agendas. While some cover a spectrum of responsibilities, others are highly specialised. Some provide fora for countries to call each other out, negotiate and achieve joint solutions. Others pursue concrete project, in many cases quite specific, with varying degrees of dependency on national leadership or participation. Whichever, the multilateral organisations tend to rely on technocrats and try to advance support for the agendas they champion. NGOs often originate in local initiatives, but many grow and quite a few accomplish significant reach, also at global level. This kind of organisations tend to spin around “communities of interest” which evolve based on joint beliefs and passions, set in motion by their founders and further propelled by their members. Those who expand the most and achieve the greatest influence respond to needs and communicates in a format and with content that resonates with larger numbers of people. Partly as a consequence of social media and platformisation, the relative importance of NGOs has increased, relative to the multilateral organisations, when it comes to raising attention and responding to new issues, thereby underpinning stronger demand for solutions, which supports green investment.

As for global corporations, meanwhile, those which act and invest most visibly in response to the challenges of sustainability tend to have founders/CEOs with strong personal convictions, while also in some cases very successful in wealth generation. That combination may lead them to engage and invest in ventures devoted to sustainability rather than buying a football team or sponsoring traditional culture, arts, etc. The scope for green investment to serve as a powerhouse for the attraction of private investment remains to be seen, however. High tech exemplifies a specific other sector with continuous huge capacity to attract diverse sources of funding, especially in location marked by intensive research, innovation, and entrepreneurial activities, with high tolerance for risk-taking. The huge investments attracted for decades to this sector have been propped up by acceptance of experimentation and disruptive change, fuelled by expectations that the frontrunners were poised to reap excessive profits. Investments in many other sectors, including basic industry, construction, or real estate, have rather capitalised on a sense of stability and maturity, scale and rent seeking. For front-line investors to flock to “green”, a favourable investment climate provides the basis, backed by coordination and consistency in rulemaking, healthy means of reducing uncertainty, and that acquired assets can keep accumulating and delivering value, whether monetary or of other sorts.

Major multilateral fora, such as the UN Climate Conferences (COPs), represent opportunities for diverse actor categories/stakeholders to come together and work out a way to manage conflicting interests, e.g., by finding a footing for agreeing to mutually beneficial joint terms. It is of high importance that such meeting grounds keep evolving in directions that facilitate constructive dialogue, avoid traps such as those associated with “quick fixes” that actually just postpone the real problems to be dealt with on another day, but increase chances of breakthroughs in achieving meaningful collaboration as soon as that becomes feasible. In the sphere of “green” diplomacy, various initiatives and agendas have repeatedly been captured by vested interests, causing serious disruptions and setbacks on many occasions over the years. Actors with a bearing on the process and outcome should take maximum care to ensure that real issues are addressed, and trust built for the longer term.

The local level obviously matters greatly too. This is where more action must happen, and results be discernible. This has become even more evident with the arrival of the information society and globalisation. Progress achieved by cities, local communities, individual entrepreneurs, and so forth, may now gain recognition and serve as a source of inspiration in distinct locations. A pool of such experience may be packaged and communicated as examples of “best practice”, subjected to further systematic study and evaluation. Achievements in one location may not be possible to emulate in another, however. Favourable and enabling conditions locally may not just facilitate investments but be critical for what results will follow. Meanwhile, compared to the local level, national institutions control far greater resources. Corporate headquarters of major private companies tend to be co-located with powerful government authorities. Incumbent interests are similarly the most entrenched at that level, presenting the most effective resistance to new initiative. Thus, transformational change in support of green investment may have to be instigated at global and/or local level, where actors other than national governments or leaders of corporate giants may “go between the lines”, acting as pioneers in seeking out new niches.

Science can be called upon to measure what should to be measured, communicate, and help raise awareness more broadly what is going on. By building a better understanding, not least of common interests, conditions could improve for follow-up initiatives. Science should counter the lure of inward-looking perspectives and the risk that green policy and investment become entangled with protection of vested interests.

The group ran out of time and could not thoroughly review the subject of enablers of NBE. Observations were put forward, however, noting the strong link between enablers that are internal to companies and those that are external. NBE require a strong presence of founders and investors that take a long view and value a broad range of benefits, not just short-term profit.

Their attitude, strategies, marketing, and communication is of high importance for framing a positive interface with citizens, customers, and policymakers, which in turn is essential for creating external demand for their output. Viable legal conditions, certification processes, procurement rules and practices strongly influence, however, the ability of NBE to become visible and their agendas to be understood.

4.4 Policies and Governance

The following questions formed the starting point for the discussion at Table 4⁶:

*Question 1: What is the desired role of **regulation** in driving corporate management and shareholder representation towards green practices and projects? What tools are recommendable to incentivise taking stakeholder considerations on board?*

*Question 2: What policies could be deployed to **enable cities, communities, and citizens** to take the lead and benefit from Nature-Based Solutions (NBS)?*

*Question 3: How can the **governance** of green projects be improved to help underpin confidence in material impact in a manner that appeals to investors and therewith decrease the cost of capital for such projects?*

Emphasis was placed at the start on the importance of long-term direction and consistency in policymaking. The quality of regulations matter, and what may appear as subtle points may exert a notable impact on the costs and benefits experienced by market actors making a shift towards greener practices. Beyond technical aspects, however, the corporate sector and its ability to manage a green transition will strongly benefit from conditions that help underpin healthy governance, marked by sound rationale and defining philosophy in support of durable impacts of green practices and policies. Two participants underlined the risk of mismatch between actual governance practices and the regulatory outcomes they produce, on the one hand, and the need of regulations that facilitate for companies to put in place innovative methods and strategies pioneering greening practices, on the other hand. Examples of “smart” regulation were then put forward - less intrusive or concerned with micro-management, but more effective in setting directions, capable of realising synergies and consistency across sectoral barriers, and thus more inclusive in promoting reform and renewal across more or less all sectors. Genuine citizen

⁶ The summary was provided by Alexandre Hedjazi, University of Geneva. It incorporates inputs collected from other participants at Table 4.

participation, including co-creation of NBS, stands out as key to achieving relevance, buy-in by the local population and thus lasting local impacts. For this to take hold, regulatory frameworks need to adopt appropriate means of co-governance, capable of engaging critical stakeholder categories while ensuring efficiency and ability to compromise and manage trade-offs. Awareness-creation and practices for information sharing that are reliable and can help build trust are of high significance for underpinning constructive exchanges and collaboration. User-friendly platforms for accessing scientific data as well as various sources of public and private information can be greatly useful in this respect. One of the participants drew attention to the importance of ensuring Data interoperability, as well as engaging SMEs for providing input, formulating, and calling attention to the issues they meet with, and also engage them actively in the reform process.

The critical notion of shared, collective consciousness was taken note of. A participant pointed to the agenda of promoting peace and preventing conflict being infused across all EU laws and regulations as a fundamental supra national guiding principal. It was argued that the private sector similarly needs to be infused with universal principals of solidarity and collective prosperity. Greening strategies will merely equate the compilation of statements and numbers, unless infused within a viable value system. Other participants noted that Global Governance structures evolve slowly, and that shared standards are lacking. This was contrasted with the greater room available for speedy action and experimentation at the city level. The group took note of the ongoing impressive wave of EU NBS Horizon Research and Innovation projects that, in effect, has been able to unleash an extensive collaborative agenda systematically propelling testing and learning from new practices in co-creation by citizens and stakeholders, in Europe as well as in other regions, and drawing lessons thereof. This experience clearly demonstrates the usefulness of actively linking competencies, including through development-oriented finance, in novel collaborative schemes that enable adaptation to local conditions, while also stimulating openness in comparing lessons and learning from the practices of others.

Considering ways of enhancing impact, the discussion ventured into the role of science and what is required for exerting an influence on decision-making. Scientists are generally not well placed to run businesses or tell businesspeople what to do. Rightly applied, built on, and communicated, however, scientific results are widely applied by leading businesses to inform and gain support for strategic decisions, internally as well as externally. On green projects, it was agreed that more can be done to foster industry-university research and development cooperation, as well as facilitate a role for civil society in evaluating and communicating the importance as well as outcomes of green projects. It was recognised however, that building required capacity takes time, is costly, and that individual companies may not have an interest in contributing. For such

reasons, specialised intermediary actors may be used to build competences and support structures, benefitting from economies of scale and value-enhancing synergies.

Participants observed that current practices tend to rely on building confidence in material impact mainly by taking advantage of tools and witness reports drawing on what is presently available. This, coupled with other easily adopted methods, e.g., by way of voluntary reporting, can be built on to achieve gradual improvement. Efforts need to be mobilised, however, beyond *ad hoc* measures, to build serious relevant capacity as a backbone for accountability, target setting and compliance. That, in turn, should be worked out in tandem with consciously crafted governance reforms.

4.5 Technologies and Projects

The following questions formed the starting point for the discussion at Table 5⁷:

*Question 1: Which green technologies and projects are best positioned to **combine** economic returns and favourable impacts on natural ecosystems?*

*Question 2: What is key to **packaging and structuring** green projects, measuring, and communicating their impacts, commercial vs. non-commercial aspects?*

The participants engaging in the discussion at table 5 started out by considering how to define the role of technology in the present context. Particular attention was devoted to aspects of transparency and traceability, with implications for the degree to which and how early-stage financing can be unlocked for impact projects. It could also fill the gap by opening a trustful primary market for projects requesting early-stage funding.

The group further considered issues and opportunities associated with various kinds of technologies. They pointed to the importance of building further understanding of the degree to which specific green and blue technologies combine economic returns with favourable impacts on natural ecosystems. Practical examples where they pointed to that being the case, include:

- Wetlands as the elements of water purification, flood protection, shoreline stabilization and groundwater recharge and stream flow maintenance;
- Trees and forests as the green technology for prevention the landslides;

⁷ Based on the report provided by Tural Aliyev, University of Geneva, this summary incorporates inputs by other participants at Table 5.

- Air River restoration project in the Canton of Geneva: renaturation of the watercourse of the Aire' project is a fine example of the preservation of a cultural landscape that combines both recreational and ecological needs;
- GeniLac project: renewable innovative thermal solution, using lake water to cool and heat buildings in the centre of Geneva.

As a green project example, EIB has outlined the agriculture project in the west of Madagascar. The aim of the project the achievement of new technologies from Australia for producing rice, corn and fishery in a manner which will allow the regeneration the land (and not to destroy the producing capability). It will also help to reduce the poverty and to use the land in a sustainable manner.

The group further highlighted the importance of building and diffusing a more profound understanding across diverse sets of researchers, industrialists, and policymakers, what it takes to structure, prepare and implement green projects on terms that enable better, measurement and communication on their impacts. The following steppingstones, which matter for business relations with customers broadly, are particularly critical for building a client basis in the case of “green” products:

- Being on the ground, with an in-depth understanding of client needs;
- Offering technical assistance to clients;
- Entertaining long-term relationship with clients;
- Helping clients measure results and build an interest in gradual improvement;
- Communicating, being accessible and keep reminding clients of the benefits.

4.6 Ways Forward

The following questions constituted the basis of the discussion at Table 6⁸:

1. How do you **implement a multi-stakeholder** approach capable of engineering on-the-ground investments in nature? What is crucial to the success of such an approach, and what would its implications be?
2. How do we best arrange for a combination of work on the mechanisms for green investment and **piloting** these mechanisms in real-world projects?

⁸ Matteo Tarantino, Catholic University of Milan, provided the draft summary, which also incorporates inputs from other participants at Table 6.

The discussion started out with reflections on the roles that various actors and stakeholders play in realising or hindering policies and projects conducive to sustainable development. Hurdles commonly derive from conflicting interests coupled with the lack of motivations or willingness to engage in efforts to compromise and work out solutions of mutual interest. The source of difficulties may emanate from bureaucratic rigidity, marked by narrow mandates and turf-mentality, or short-sightedness entailing neglect of long-term effects. Entrenched interests rooted in a traditional mindset and ways of working present obstacles to change.

Solidifying such issues, sectoral or partial indicators, and associated policy objectives and reward systems, account for mismatch in objectives, expectations, and perception of results. On this basis, participants reflected on the scope for introducing and implementing sets of indicators better suited for identifying and measuring synergies. They observed that cross-border collaboration, between scientific disciplines as well as between policy fields and sectors, is required for building an understanding of systems effects, and thereby achieving consistency and also synergy between measures taken at varying levels, ranging from local to global. Representatives of international organisations reported on their experience in developing sets of indicators as part of wider strategies to improve horizontal communication and collaboration. The ongoing experimentation supported by European Horizon projects introducing NBS at city level, puts high focus on processes featuring intensive engagement by citizens and other key stakeholder. Much attention is devoted to exchanges of experience and mutual learning how to develop and implement inclusive practices, with consideration to disadvantaged groups, gender, rural areas, youth, elderly, and so forth.

The potential of using information and communications technology, to achieve greater precision in tailoring messages in support of special needs, as well as greater reach in building broad-based demand for green solutions, was noted. Also, the discussion touched, however briefly, on potential new applications, such as quantum computing, in support of scenario simulation, particularly with reference to complex environmental policies. Increased trust in simulations (and the predictions thereby produced) was hinted as potential way to boost alignment among stakeholders.

The discussion further ventured into the economics of nature-oriented interventions. Better informed citizens and broad-based community engagement may reduce the costs and risks of engaging in green investment. An example is that of circularity- Multiple examples, not least from developing countries, demonstrate the key role of broad-based community engagement in ensuring economic returns from re-use of waste streams, along with reduced social and economic costs. Greater public awareness further helps build resistance to state subsidies

distorting and undercutting green investment. Of fundamental importance is the ability of policy coordination to enact consistent progress in putting a price on environmental assets, while also building institutional support as well as mechanisms for financial and corporate behaviours that take account also of those natural assets that cannot be priced and protected by market forces. Joint efforts underpinning sound strategies in this respect need to be fed by science-based inputs, indicators, information systems and certification mechanisms, that help build trust and a robust wide-spread understanding of the link between actor and stakeholder behaviours and what they bring in terms of outcomes on the ground.

5. Introduction to Selected Project Agendas

5.1 On Vision 2040 for Africa

By **Marc Watum**: CEO Vertex, Founder of Vision 2030 Fund, a sustainability and entrepreneurship agenda for Africa, and

William Kotun: General Partner of Vision 2030 Fund, a sustainability and entrepreneurship agenda for Africa

Vision 2030 is an Africa-focused Venture Capital Fund. We specialize in solutions for Africa's most pressing agriculture inefficiencies, suffering from an investment gap estimated at 500 billion dollars. Yet, the actual gap at hand is not made up just of funds – and cannot be closed by funds per se. In reality, so much more needs to be addressed.

The key initiatives you will hear about today have to do with closing gaps by way of mind-set and collaborative action. At Vision 2030, we believe the only way to proceed and succeed in this regard, has to work out the way to relate to - and capitalize on - the myriad of people living on the ground that are currently staying on the side-lines.

At this very moment, we're observing the improvement in the daily lives experienced by millions of Africans. On the one hand, we have a new generation of market making solutions that close accessibility gaps for small holder farmers. While on the other hand, we're coordinating the empowerment and grip-hold onto self-determination, of over 8600 protected areas, rural populations, and cities all around.

Our first case of concrete action takes the shape of an international multi-stakeholder initiative that spans, in principle, every protected area in the Sub-Sahara. Its organisation, capacity building process and external linkages are framed for the purposes of bridging barriers and gaps vs. the financial community which emanate from language barriers, lack of financial literacy, and other sources of mistrust, uncertainty and perceived risks. The objective is to pave the way for a better and more productive screening by financiers of investment projects, enable learning and gradual improvement, and eventually realise the provision of consistent, reliable funding of quality projects on favourable terms. In turn, a virtues circle can be created whereby:

- protected areas meet with opportunities to unlock greater funding,
- more private capital can be mobilised for conservation and development.

An integrated pan-African network of entrepreneurs, managers, experts and other resource-persons is taking shape, creating the conditions for achieving a multifaceted innovation ecosystem, of direct relevance to the local people, those who live in these areas. While significant funding will be required to take this process forward, this collaborative network, propelled by complementary competencies and incubator services in support of more viable start-ups and business models, is structured so as to become accessible and actionable for diverse kinds of investors and resource providers. Many of these need to bring vehicles of their own for further capacity building and mentorship orchestrated to raise financial literacy, sharpen localized problem solving, and thus achieve investor readiness much deeper in these social realms than has previously been the case. Grants and basic funding need to be attracted too, coupled with strategic partnerships ready to play a role in building this overarching structure of interlinked competencies and development efforts.

Our second program, named Bolstering Africa, features a portfolio of companies staged in a process of maturing plans making them well placed to receive and manage suitable funding. As examples, meet Sylvia's basket, the Pastory index, and ASHES:

- Sylvia's basket features organic smallholder farmers and advanced market making facilitation. Today this start-up helps thousands of farms deliver their produce to thousands of Kenya's within hours of harvest. Sylvia's pipeline rids the value chain of preservatives, pesticides, and the poison that is unsustainable farming and distribution while making the nation healthier than ever before.
- The Pastory index tracks and traces every input, process, and output involved in the seed to sale cycle of Africa's in-demand crops. Using Dr Denis Pastory's ai and 4th generation technological mastery, the data and its corresponding real-time immersible mapping interface allows anyone to identify these industry shortcomings, ideate, innovate, and transact - once again without the burden of value-diluting mediators.

- Finally, the African Sustainability Hubs, known as ASHES, builds on innovations like Sylvia's Basket and the Pastory index to encourage local entrepreneurs to innovate in ways that solve local agriculture challenges, test them in designated eco-hubs beside fellow ideators, and integrate them in support of a viable, value-enhancing and at the same time resilient regional value chain.

New channels need to evolve in order for such projects to fulfil their potential. Their progress means livelihood, environmental protection, and setting in motion irreversible processes of agri - and social - innovation.

5.2 Mangroves and Wetlands Development

By **Hans-Ludwig Dankwardt**: Founder and Managing Partner of Macun International LLC, a Swiss based company contributing to the sustainable socio-economic and ecological development of the societies in Europe, Middle East and Africa.

We aim to address the most important challenges of our times with large scale Mangrove Reforestation Ecosystems: poverty, hunger, water scarcity, migration, climate change. With increased livelihood for people living at hot, arid coastlines in Africa and the Middle East, providing food and fodder security for both humans and livestock, offering multiple employment opportunities, and avoiding migration of millions of people from Africa and the Middle East to Europe as well as protecting freshwater resources by only using seawater for our Mangrove reforestation project. Given adequate coordination between the different beneficiaries at hand, affordable solutions are at hand. The factor tipping the balance, to make project development possible, us by taking out CO₂ from the atmosphere with NBS, of which Mangrove Reforestation Ecosystem projects represent a prime example.

Given a comprehensive approach, Mangrove Reforestation Ecosystems can be funded under the label of “premium carbon removal credits”, certified by GoldStandard. A condition is that Governments are willing to provide a simple signature on a document, verifying “corresponding adjustments” (Paris, art. 6 Agreement) to avoid double counting.

We aspire to put modern finance at the service of nature and incentivise investors to deploy capital with the view to generating attractive, market-based investment returns. A key element has to do with the carbon sequestration, accredited periodically in the form of Verified Emission Reductions (VERs). Each VER is equivalent to one tCO₂ removed from the atmosphere. The VERs will be made available to both “off-takers”, with the view to mitigating their respective CO₂

footprint, as well as to financial investors focused on the creation of a new carbon asset class capable of delivering a differentiated, yet “CO₂-compliant”, market return.

The value of CO₂ captured will be directly monetised through the sale of CO₂ certificates to repay the initial capital commitment made by international investors. All ecosystem benefits financed with Carbon Credits are remaining and belonging to the country where the Mangroves are. This includes all ecosystem values coming out of natural coastal protection, new eco-tourism business opportunities, increased fishery business opportunities, increased biodiversity, apiculture, sustainable livestock fodder, increased livelihood, employment opportunities for both skilled and unskilled people. It is a direct contribution to national GDP and fiscal revenue.

When discussing Mangrove Reforestation Ecosystems finance with Governments, however, the same issue tends to pop up over-and-over again. Although the present multilateral frameworks in fact enable Governments to access climate finance and embark on cost-effective ways to achieve their climate commitments, there are only very few countries offsetting their CO₂ emissions with bilateral agreements according to Paris Agreement Art. 6 and UN Framework Convention on Climate Change (UNFCCC).

A major obstacle in this context is the lack of knowledge how the Paris Agreement and climate finance in general works. Unrealistic expectations arise easily. Rather than focusing on securing agreements that enable projects to come about, and that all parties can benefit thereby, many governments observing the opportunity of attracting pre-funding quickly adopt a one-sided stance. Even where there is scope for projects to be 100% financed internationally, with foreign investors carrying the full risk for failure, Governments get bogged down in the distribution of certificates. It is then also neglected that the ecosystems value is far higher than the carbon value. There is a need for Governments to broaden their perspective of the benefits, and not only focus on monetary returns. An issue here is the tendency of the responsible government agency to look at its *own* financial return, rather than the overall benefits in terms of sustainability. Through just a stroke of a pen, which may cost them nothing but open the door to huge societal benefits, governments could generally reduce the uncertain to currently prevents investors from moving forward with support for such projects.

Another challenge is that associated with “valley of death financing”. The highest costs are at the very beginning of the NBS project. We need to finance feasibility studies, environmental assessments, stakeholder meetings, etc., until project registration for Gold Standard certification and preparation costs for deployment are in place. The Finance Industry is not well prepared for long-term climate carbon projects, although multiple advantages are generally recognised.

Photo 1: Fiakor, Keta Lagoon, Ghana. Mangrove Reforestation Project
Seawater Solutions, 2022



Source: Joella Korczak, SeawaterSolutions

Further, Certification Companies used to work with NGOs on Mangrove “Conservation” and “Restauration” projects, not with the more appropriate concept of Mangrove “Reforestation” Ecosystems. The certification process for such large scale “Reforestation” projects remains complicated.

Realising Mangrove Reforestation Ecosystems along hot, arid coastlines in Africa and the Middle East carries multiple potential benefits, including highly effective means of both climate mitigation and climate adaptation.

Mangroves provide favourable carbon sequestration capabilities, which go beyond those of boreal and tropical forests. Quantifying the sequestration potential requires consideration to what degree of additionality applies. Mangrove reforestation projects do not compete with farming land or previously used land and tend to account for greater net carbon storage in the long term, while also protecting against various negative consequences of climate change.

Photo 2: Local Team Fiakor, Keta Lagoon, Ghana



Source: Joella Korczak, SeawaterSolutions

5.3 Valuing Water – Workshops for Children & Youth and Circular Cities Café (C3)

By **Ingrid Andersson**, Vice President Global Forum and Founder of Sweden-Japan Eco Village in Nagoya, Japan. Senior business executive, analyst, and serial entrepreneur.

Valuing Water Workshops for Children and Youth are based on a unique workshop methodology which has been put together by a number of experts with the aim of igniting energy and learning by creativity for lasting impressions and empowerment. In November 2019, a pioneering workshop was arranged for children and youth, at the National-Museum of Oman, back-to-back with the international launch conference of W&H.

Following up on the remarkable outputs, a series of workshops has been rolling, with children and youth in selected countries. Established methodology, rooted in motivational interviewing,

has been adjusted and applied to connect and inspire children around the theme of the world's most precious resource, water. Everyone, everywhere, relates and engages within minutes, extending to personal positive associations with water, to open up for reflection by the children individually and in groups on the value of water, and from there on issues with regard to water management today and in the future.

Thus far, the model has been applied also in Germany, Italy, Iran and South Africa, with preparations in an advanced stage for implementation in Malaysia. All these exercises have been the result of local, personal initiatives within the network. The age groups have varied from 3 up to 15 years' old.

Despite a considerable degree of adaptation to the specific context, the content has been elaborated based on a core set of common content typically structured as follows: i) Reflection on the unique value of water; ii) linking water to personal aspects, such as family or their immediate surroundings; iii) opening for reflection on the role of water today and how it is handled; iv) considering where we are heading in the future, and; v) creative work, including in teams, using art for expression. In each country, a slightly varied version of the workshop was offered to age groups, with lessons of what worked well or less well recorded. The relationship to the teachers, specific school, school administration, etc., was handled in each country, a slightly varied version of the workshop was offered to age groups, with lessons of what worked well or less well recorded. with care. Both preparation and follow-up are included in the set-up.

The ongoing work is currently focus on the establishment of a certification of the workshops. The objective, after some additional experimental workshops, is for a protocol for the certification to be developed, reviewed and accepted through a process that entails collaboration by other existing relevant organisations and networks. This will include mechanisms for channelling ideas and outcomes flowing from the workshops into real-world action. A Steering Group is in formation to guide the strategy.

Strong attention is further paid to diffusion and to promote opportunities for newcomers to engage, for instance, through the following:

Photo 3: Drawing in Muscat



- the offering of arrangements for smooth and effective adoption of the main principles, by drawing on the experience of the previous process, packaged by way of a “protocol” / guidelines framing the set-up and the conditions for certification,
- engage educational institutions in their local environment,
- expand the mentors’ network,
- support by their expertise & network & fundraising activities.

Photo 4: Valuing Water, Muscat Nov. 2019

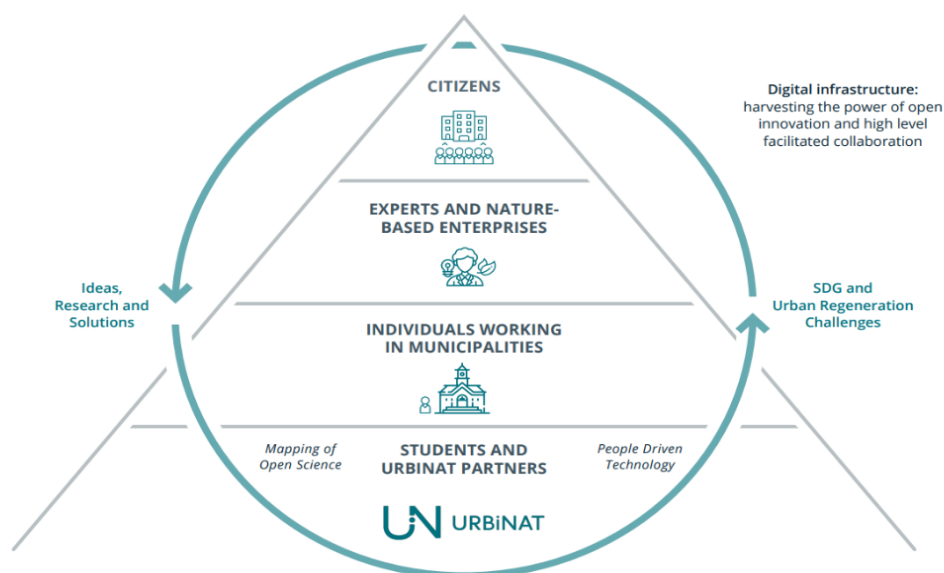


Source: National Museum, Learning Centre

For further information, visit: info@waterandhumanity.com

Circular Cities Café (C3) is a hybrid platform (on-site and on-line) that has been developed in connection with the Horizon 2020 project URBiNAT (www.urbinat.eu). Through 2020 and 2021, all cities engaged in the URBiNAT project were invited to take part in the development of digital enablers in support of citizen participation, while able to choose between different concepts and approached. Several of them responding positively to the ideas behind C3, which was subsequently developed through consultations between the interested parties. In this context, input was obtained from the various task forces established in the URBiNAT cities, and from other actors taking part in the associated Community of Practice (CoP). Gradually, the project’s maturing has involved a broadening range of relevant actors as well as individual citizens in the participating cities, while extending to the wider sphere of communication made possible by digital enablers.

The Circular Cities Café concept is depicted in Figure 4. Initially, students and other URBiNAT partners will be connected through the digital infrastructure, which is run on the concept of people-driven technology. It means that the digital collaboration space will be used primarily for the purpose of improving citizen-centric urban regeneration processes through open innovation. All data shared among platform users will be open-source and used to map already existing science on SDG related topics and urban regeneration challenges. There will be a rich and interactive exchange of ideas, enquires, and lessons learned within as well as between various actor categories, such as, students, researchers, the public sector (municipalities), NBS experts, NBE, citizens, and various stakeholders. The set-up will be initiated, however, with a focus on engaging students along with relevant scholars who reside in the intervention areas.

Figure 4: Interlinked Communities of interest in the Circular Cities Café

Source: URBINAT, 2021

Several physical cafés have been approached and selected as physical entities, based on criteria ranging from participation by different eco-socio groups, maturity in embedding NBS in the operations of the café, readiness to host onsite and online meetings for sharing of experience, etc. In the forthcoming process all the selected cafés will be presented on the platform.

In the next stage, the selected cafés will feature on platform, with key features and hosts, as well as with the interface to their members and users, opening up multi-level but constructive channels for members' interface.

Indications are at hand that various cities' networks, such as Sustainable cities by Global Environment Facility (<https://www.thegef.org/what-we-do/topics/sustainable-cities>), the EU Initiative Net Zero Cities (<https://netzerocities.eu/>), and others, will be in the position to benefit from taking part in the hybrid solution offered by the C3 platform. These bodies, as well as suitable technology partners and other representatives of local communities, are invited to engage in the preparations and anticipated launch and scaling of this project.

6. Conclusions: Towards Implementation

The previous sections feature brief summaries of the various presentations and outcomes of the group discussions that unfolded at the Davos workshop of January 18, 2023. The challenge that has been outlined will not be addressed by issuing another report, however, but draws attention on changes of practice in ways that can open for making a difference on the ground.

A recurrent theme is that of a disconnect between pledges of green investment, on the one hand, and what is achieved in terms of impact, on the other. The advancement of ESG, green bonds, and carbon credits, along with ambitious references to achieving sustainability in corporate reporting, is accompanied by serious concerns of greenwashing.

As touched upon in various parts of the report, several coinciding factors contribute to explaining the disconnect between alleged efforts and actual results. A key aspect has to do with the inherent difficulty to internalise the value streams of regenerating nature, which undercuts the bankability of numerous projects of high environmental and social value. Other complications arise due to unfavourable conditions for entrepreneurship, heavy government bureaucracy, and resistance by vested interests that benefit from incumbent production and consumption patterns. Social organisation, with human networks closing inward due to favouring of like-minded, uniform mindsets, defined by language, education, or special interests, does its part. Donors and financiers meet with high transaction costs in identifying and evaluating prospective project agendas outside their core expertise. Meanwhile, the higher the actual costs confronting companies in addressing their own emissions, or working out effective offsets, relative to the ease of getting away with simple showcases, the less likely they place priority on actual content.

The discussions at the event picked up on changes being under way. Corporate managers find themselves under pressure from several directions, including customers, advisors, partners, and also from owners and investors putting up new demands manifested at annual meetings and – in some cases - enforced changes to the board of directors. Additional factors enter the scene and could trigger substantive adjustment ahead. An ongoing shift in attitudes putting greater weight on quality of life and well-being, was pointed to as a force of change. Changes to corporate culture have a bearing on the time horizon applied in strategic decision-making, including what weight is awarded to long-term prosperity vs. short term profit. Of importance too, is the dynamic shaping value propositions of other institutions with high impact on prevailing mindsets, e.g., how business schools get ranked and profile themselves.

Tangible process in realising financially viable projects in nature regeneration will, no doubt, require a systemic approach, managing complex processes and partner relations, engaging complementary competences, and capturing synergies between inter-related direct and indirect value streams. Some are prone to commercial success, as when monetised by eco-tourism, or verified and certified carbon emission reductions. In other cases, value streams take the shape of genuine public goods. As the benefits dissipate widely in space and time, market forces alone provide poor backing. Commercial gains may become attainable by the provision of loans and equity provided on market terms. In this case, there is a major difference between investment in early, inherently riskier, start-up and establishment stages, and what applies in mature stages of scaling and diffusion, with the success of both possible only where differentiated quality strategies and competences are able to evolve. In the case of pure social good, concessional loans or grants may be required, with different prerequisites for support depending on the kinds of value streams and actors involved. Strengthening public and consumer demands for sustainability, coupled with the formation of NBE and innovation, potentially shifts the boundary lines between the different kinds, while also improving the conditions for investment. In particular, the combined engagement and collaboration between community leaders, green entrepreneurs, citizens, and professionals, may greatly leverage the scope for attracting green investment and managing the resulting assets for win-win among all involved.

The extent to which financiers and the corporate sector will come along, contribute or slow real action in such respects, is not a given. While acting “green” has proven financially profitable in recent years, again, more is required in terms of outcomes for sustainability. Renowned serial entrepreneurs meet with great chances to attract finance for projects that are based on solid business plans. In other cases, prospective project agendas appear in shapes much harder to embrace, as less well-understood representation and lack of “investor literacy” will ensure mainstream financial institutions stay on the side-lines. Yet, as has emerged from this report too, as well as from a range of other recent research studies including practical work, citizen participation, local ownership, and co-governance are key for achieving buy-in by people and thus to underpin lasting impacts. Despite numerous examples of spirited successful local initiatives and change processes, e.g., where citizens have taken the lead in designing and implementing successful NBS, a wealth of such local community efforts rely on minimal public funding. In fact, much of the calls for mobilising greater international funding refer to government-to-government relations, while a range of bureaucratic and other hurdles prevent even already allocated resources to reach those engaged in the real work.

The deliberations leading up to this point make it clear that no silver bullet is at hand, no “one-size-fits-all” solution, to facilitate investment, realise, and expand favourable impacts on

sustainability across-the-board. The Davos event has underlined, however, the need of working out, and putting into practice, new definitions of what is meant by investment “going green”. The effort must go beyond issuing contemporary guidelines or assessment work, as associated with ESG or TFC. It needs to complement the existing frameworks in ways that manage to promote a shift in financial and corporate behaviours towards supporting sustainability.

Part of the effort must entail new means of measuring and demonstrating impact, of verification, validation, and certification. The task extends further than that, however. Going beyond what can be accomplished by any individual person or organisation alone, a coordinated effort is required to enable reach and implementation, with improved linking of diverse actors and for synergies to be captured between the multi-faceted value streams that arise from regenerating nature. The objective is to arrive at a systemic and collaborative “Impact Investment, Financing & Development Model”, inducing and rewarding support to people and nature on the ground.

While directions for going forward were outlined at the Davos event⁹, the precise means and steps of operationalising this work is still taking shape. In short, the effort under way spans the following main strands of activity, to be advancing along partly sequential, partly parallel, tracks:

i) Revamping the mechanisms for green investment

Work is under way to present a sharper definition of “impact investment”, of such relevance to addressing key sustainability issues that references to investment being “green” or “blue” get teeth to them. Means of verification, validation, and certification are essential. Collaboration with organisations such as UNEP-Grid in Geneva, tasked by UNEP to work with the scientific community worldwide to measure the fulfilment of the UN SDGs, lends important support. Representatives of the financial and corporate sectors, as well as international organisations, are consulted with on the allocation of different categories of funding and their relevance for various value streams. Finally, advances within EU NBS Task Force III of Horizon Research and Innovation Projects, addressing Governance, Business Models and Financial Mechanisms, have set the stage for upcoming work on the dynamics of a Nature-Positive Economy, for which structured collaboration and links with the present work have been established.

⁹ Fifty participants signed on to an invitation to receive follow-up information and consider opportunities to engage in a continued collaborative effort to turn out outcomes of the discussions into practical action.

ii) Selecting and applying mechanisms to pilot projects

An initial set of real-world “projects” has been collected and tentatively evaluated and prioritised with a view to their suitability for kick-starting experimentation and finetuning of the proposed mechanisms for revamping green investment, under point 1) just above. The purpose here is partly to help speed the learning process and thus to develop a replicable and scalable method/process. Additionally, there is the objective to channel resource flows mobilised under this framework in support of important verifiable contributions to sustainability, thereby contributing to build interest, credibility, and support from diverse partner categories. The selected projects all abide with a core set of criteria, forming untapped opportunities for scaling and progression, featuring sustainable business model as well as collaborative governance mechanisms. Additionally, strategic partnerships are in formation with novel, innovative global or regional initiatives that display an inherent drive to breed local projects in support of sustainability. Examples here include established players in the insurance industry as well as a rising challenger to incumbent IT platforms in developing countries.

iii) Ecosystem Development

Along a third track, work embarks on leveraging various other elements of critical importance for framing a viable value-enhancing ecosystem for impact investment. At the core here is working out ways to leverage untapped opportunities by realising collaboration. This calls for creating new networks, connecting complementary skillsets, building literacy that helps attracting local as well as international resources, addressing social issues, aligning interests, and building trust.

Specific tasks include:

- Capacity building and support structures by way of training, monitoring, increasing investment literacy and lowering transaction costs for project selection, development, and evaluation;
- Facilitating access to support services for increased benefits for local projects from engagement in presently fragmented markets (such as carbon credits) as well as to prepare for future, presently not yet existing markets (such as biodiversity or water credits);
- Increasing investment literacy for projects, especially where initiated through citizen participation and co-governance;
- Establishing partnerships with organisations specialised in aligning stakeholder interests, and;
- Communicating and highlighting potential, invoking local authorities to ease administrative hurdles, requiring innovation and new initiatives to achieve greater global reach coupled with local connectivity and adaptation to reach out much more broadly to the public as well as key actor groups.

Relevant capacity building in such respects may be supported from various directions. Rich experience is on offer through the mentioned EU NBS Horizon Research and Innovation projects. Furthering collaboration with, e.g., the Global Commons Alliance, UNEP, IUCN, and the ECE, with which joint initiatives have been taken through the Excellence Centre on Smart and Sustainable Cities at the University of Geneva, is greatly important. At the same time, the present agenda needs to reach beyond the circle of the incumbents, placing emphasis on inclusion and fostering of local initiative along with connectedness.

iv) Multistakeholder Forum

The workshop and luncheon at Morosani Post Hotel, January 18, 2023, brought together representatives across a wide spectrum of organisations, industries, and regions. The agenda drew on the conclusions of a related recent global event that aimed to break new ground on cross-border collaboration, the *Global Forum: Technology, Sustainability and Humanity*, Muscat, Oman, October 17-19, 2022.¹⁰ The format of these events have been that of a Multistakeholder Forum, inclusive and action-oriented in nature. Rather than asking for measures to be taken in a general sense, the participating organisations and individuals set out to pursue specific activities, while inviting others to join. In conclusion, we aim to further build on this model, cutting lead times for realising collaborative efforts required for achieving results on the ground. The Multistakeholder Forum is set to gather again, take stock of and evaluate what has been achieved, agree on correcting steps, and then propel further results-oriented action.

Synergies and constructive partnership with other parallel initiatives will be critical. The next stage activities under consideration by the EU NBS Task Force III on Governance, Business Models and Financial Mechanisms, include the formation of a high-level impact board in support of work on the Nature-Positive Economy. Besides contributing with insights and guidance on European efforts in that sphere, the envisaged missions of that body include linking to the global context and the present initiative. Meanwhile, continued contacts with the World Economic Forum may open for another workshop or related event arranged in Davos, in January 2024, or in later years. At present, the effort is on to embark on the stage of operationalisation, for which a practically useful Roadmap is under preparation by the founding organisations. New partners are warmly and eagerly invited to join and take active part.

¹⁰ For the conference document, see <https://waterandhumanity.com/MuscatCall>