MAVA
FONDATION POUR LA NATURE

FINAL EVALUATION

SE3 - SUSTAINABLE AND NATURE-BASED INFRASTRUCTURE 2017-2022

19.10.2022

1. INTRODUCTION

A global challenge is upon us. As climate change increases the need for more resilient infrastructure, we will face an ever-more-pressing demand to refurbish or renew existing infrastructure. At the same time, infrastructure development is a major cause of greenhouse gasses emissions and biodiversity loss.

Given this, we must make sustainable and Nature-based infrastructure the norm. Sustainable infrastructure is designed to ensure economic, social, institutional, and environmental sustainability over its entire life cycle[1]. Nature-based infrastructure harnesses nature to provide infrastructure that protects people, the economy, and the environment. Examples include wetlands, forests, water-filtering green roofs, and habitat-preserving flood mitigation systems.

With our partners, we worked to make sustainable and Nature-based infrastructure a viable, mainstream choice for infrastructure renewal.

BUDGET ENGAGED

CHF 6,9 mn

OBJECTIVES

- channel investments towards sustainable and Nature-based infrastructure using innovative financial instruments
- establish sustainable and Nature-based infrastructure as a mainstream asset class
- foster stakeholder capacities to plan, finance, implement, and operate these infrastructures
- shape infrastructure development and financing by influencing stakeholders and processes

THE PARTNERSHIP

eit Climate-KIC

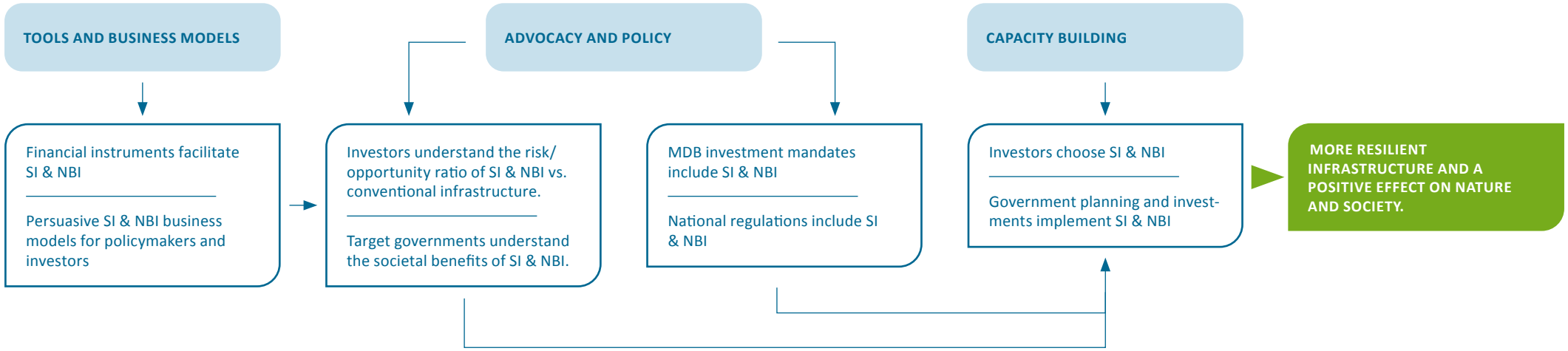
Global Infrastructure Institute
mobilizing communities

BANKERS WITHOUT BOUNDARIES
THE INVESTMENT BANK FOR EARTH

IISD
International Institute for Sustainable Development

Global Infrastructure Basel

[1] UNEP: https://www.unep.org/explore-topics/green-economy/what-we-do/sustainable-infrastructure-investment


TOOLS AND BUSINESS MODELS
ADVOCACY AND POLICY
CAPACITY BUILDING
Financial instruments facilitate SI & NBI
Persuasive SI & NBI business models for policymakers and investors
Investors understand the risk/ opportunity ratio of SI & NBI vs. conventional infrastructure.
Target governments understand the societal benefits of SI & NBI.
MDB investment mandates include SI & NBI
National regulations include SI & NBI
Investors choose SI & NBI
Government planning and investments implement SI & NBI
MORE RESILIENT INFRASTRUCTURE AND A POSITIVE EFFECT ON NATURE AND SOCIETY.

2. PROGRESS AND ACTIVITIES

Partners implemented complementary strategies across the infrastructure value chain to encourage systemic change - from policy, planning, financing, and design through to construction, operation, and decommissioning. The strategies targeted three areas: tools and business models, capacity building, and advocacy and policy. While some strategies created direct impact through projects, others focused on shifting the global discourse.

Goals included improving policy and practice, mobilising investment, creating relationships along a fragmented value chain, challenging power dynamics, and promoting sustainable infrastructure as a superior asset class to conventional infrastructure.

The focus on sustainable infrastructure rapidly narrowed in on Nature-based infrastructure for its capacity to protect natural capital while delivering economic and societal benefits.

STRATEGY 1: TOOLS AND BUSINESS MODELS

We developed a set of evaluation, financing, and project development tools to support broader systemic change and counteract bottlenecks that impede investment in sustainable infrastructure. Our activities included:

- quantifying and monetising infrastructure sustainability risks and impacts with the Sustainable Asset Valuation methodology (SAVi);
- establishing a common understanding of infrastructure assets between developers and financiers with the SuRe® Standard for Sustainable and Resilient Infrastructure certification programme;
- helping public sector stakeholders assess, plan, and implement freshwater Nature-based solutions for anti-flooding infrastructure with the Nature for Catchments Launchramp;
- developing artificial intelligence tools such as the Aligned Indicators for Sustainable Infrastructure (AISI) and the Infrastructure Sustainability Intelligence to flag sustainability risks for planned infrastructure.

STRATEGY 2: CAPACITY BUILDING

We raised awareness on sustainable infrastructure, provided stakeholders with the skills to use the tools outlined above, and increased their confidence in planning, financing, and implementing sustainable infrastructure. Our activities included:

- organising capacity building programmes including face-to-face training, online training, and a MOOC (Massive Open Online Course) for leading institutes such as GIB, Bankers without Boundaries, Climate KIC, the Ecole Polytechnique de Lausanne (EPFL) and IISD;
- promoting capacity building on project development aimed at politicians, investors and public authorities with the Nature for Catchments Launchramp;
- encouraging capacity building on systems thinking, system dynamics modeling, cost benefit analysis, spatial modeling, and financial modeling for decision makers across the infrastructure value chain with the SAVi Academy and Nature-based infrastructure Global Resource Centre;
- strengthening municipalities' and regional capabilities for integrating Nature-based infrastructure.

STRATEGY 3: ADVOCACY AND POLICY

We engaged in critical policy dialogues along the infrastructure value chain to drive change in the private and public sector and create a community of stakeholders who support sustainable infrastructure. Our activities included:

- drafting statements for G20 advocacy groups T20-D20-B20 ;
- participating in strategic organisations such as the Long-Term Infrastructure Investors Association (LTIIA) and Long-Term Investors Club (LTIC), and the Global Infrastructure Facility (GIF) Advisory Board;
- advising the Technical Expert Group (TEG) and participating in stakeholder consultations for the EU Taxonomy on Sustainable Activities;
- cooperating with rating agencies and government entities on the Sustainable Infrastructure Alliance (SIA), and EIB's Advisory Hub on Nature-based solutions for climate adaptation in Europe.

KEY LESSONS

The following lessons have guided our strategy as the infrastructure sector evolves:

1. Discourse must be grounded in empirical evidence and practice. The nuances of Nature-based infrastructure deployment require a firm command of technical details for effective implementation.
2. Ongoing innovation and engagement are key to developing sustainable infrastructure as an asset class which is both extensive and liquid.
3. Private finance is not a one-size-fits-all solution. Many of the most important Nature-based infrastructure projects fall under the jurisdiction of regional authorities with specific options for private participation.
4. The time is now. As market participants are increasingly motivated to invest in sustainable and Nature-based infrastructure, it is critical to capitalise on this momentum towards positive change and protect it from greenwashing.
5. Stakeholders across the infrastructure value chain are diverse and often siloed. Key research findings should be tailored to effectively engage and influence each stakeholder.
6. Infrastructure development takes time - a lot of time. To stay at the vanguard of innovation from beginning to end, planning procedures should be flexible, with procurement processes that allow for the inclusion of new technologies.
7. Individuals within institutions come and go. To guarantee lasting change, it is important to build institutional capacity, not only individual capacity. At the same time, some people can move mountains, so it is worth taking the time to identify and support these champions.
8. Set a pace to go the distance. It is important to push new ideas, but mainstream acceptance takes time. Being too far ahead of the curve can make it hard to convince key individuals.

3. ACHIEVEMENTS AND IMPACTS

Our actions have fueled the transition towards sustainable and Nature-based infrastructure. For example, the Nature for Catchments Launchramp and the Nature Based Infrastructure Global Resource Centre, have directly influenced resource mobilisation, policy improvements, and sustainable infrastructure implementation.

The knowledge, tools, and insights we generated have raised awareness on the societal and economic value of nature and sustainability. Our work has supported policy changes to mainstream sustainable and Nature-based infrastructure with city networks, industry associations, policy engagement groups, and financial institutions.[4]

Governments and communities, financial institutions, and investors now have a broader and better understanding of the impacts and opportunities of sustainable and Nature-based infrastructure. Stakeholders are asking more sophisticated questions about climate impacts on infrastructure finances, project emissions values, and how infrastructure can vector social and environmental betterment.

Sustainable infrastructure is now a viable asset class, and there is a clear upswing in funding and investment dedicated to renewable energy, energy efficiency, and energy storage. Fund managers, banks and institutional investors increasingly understand that sustainable infrastructure generates better returns than conventional infrastructure.

[4] For example, collaboration with the European Investment Bank (EIB), World Bank, the EBRD, OECD, B20, T20 and D20/Long Term Investors Club, WEF Global Futures Council, Sustainable Infrastructure Partnership, Long Term Infrastructure Investors Association (LTIIA), Technical Expert Group of the EU Taxonomy, Global Infrastructure Facility (GIF) Advisory Board, C40 Cities Financing Facility, City Climate Finance Leadership Alliance (CCFLA).

CASE STUDY 1: THE NATURE FOR CATCHMENTS LAUNCHRAMP, GREECE AND CYPRUS

One impact of climate change is an increased risk of flooding, which is exacerbated by degradation of natural environments such as wetlands, forests, floodplains, and riparian vegetation. In the Mediterranean, there is enormous potential for Nature-based solutions to create or restore forest, wetland, and riparian habitats.

The Nature for Catchments Launchramp addressed financial, technical, and political barriers to Nature-based solutions and hybrid green-grey solutions in high-risk flood catchments in Cyprus and Greece. In both locations, working with local authorities, we conducted pre-feasibility studies on a pipeline of solutions. The projects identified regional interventions that would align stakeholder interests (e.g., flood risk, water quality and availability) with habitat restoration and capacity building. The next phase will complete the feasibility studies on the pipeline and scale the concept for more than 100 regions.

Photo © Thanos Giannakakis / WWF Greece

CASE STUDY 2: NATURE-BASED INFRASTRUCTURE GLOBAL RESOURCE CENTRE

The Centre was founded to increase confidence among project developers and investors to invest in Nature-based infrastructure instead of, or in combination with, grey infrastructure[5]. It came on the heels of the Sustainable Asset Valuation (SAVi) methodology and was a collaborative effort between IISD, the Global Environment Facility (GEF), the United Nations Industrial Development Organization (UNIDO), and the MAVA Foundation. The Centre is currently involved in more than 40 customised, integrated, cost-benefit evaluations of various Nature-based infrastructures. These evaluations demonstrate each project's risks and benefits and help guide future financing strategies. The Centre has also trained more than 2,000 participants from more than 100 countries on NBI valuation methods and case studies and will continue delivering these courses and customised valuations over the next 4 or more years.

Photo: Shutterstock

[5] Grey infrastructure are systems constructed with materials such as steel and concrete to deliver a specific service (e.g., concrete bridges, roads, or water treatment facilities).

KEY IMPACTS

Sustainability and nature have become key elements of any infrastructure planning, financing, and implementation project. Better understanding of sustainability in terms of infrastructure development and a broad engagement with stakeholders has led to increased interest in sustainable infrastructure from project developers, governments, and investors alike. Stakeholders now see sustainability as a benefit rather than a cost. The first investment funds financing Nature-based infrastructure have emerged, although more work needs to be done before NBI financing becomes mainstream.

1. Tool development and implementation (SuRE, SAVi, Nature for Catchments Launchramp, Infrastructure Sustainability Intelligence Tool) have provided sustainability performance assessment and valuation for more than two hundred projects across forty-seven countries and five continents.
2. We helped influence the content of new facilities to support financing and project preparation (including InvestEU and the EIB Environment Framework) by multilateral development banks (MDBs), which have been launched by The European Investment Bank, the World Bank and the European Bank for Reconstruction and Development.
3. Support of over thirty municipalities allowed for mainstream integration of Nature-based solutions through spatial planning assessments, legal framework, and financing.
4. More than three thousand participants from over a hundred countries received training on valuation methods for sustainable and Nature-based infrastructure.
5. Sustainable and resilient infrastructure has become a viable asset class for investors, project developers, and decision-makers alike.

4. WHAT WILL HAPPEN NEXT

Since we began this work, the world has changed considerably. The impacts of climate change, the pandemic, economic, and geopolitical uncertainties have brought new challenges and opportunities.

We have succeeded in changing mindsets towards sustainable infrastructure but have also learned that simply driving investment into Nature-based infrastructure is not enough. While finance and insurance can increase the scope of change, the involvement of public authorities will be key to making sure that nature is fully integrated into masterplans, policy, and regulation.

Continuing efforts to encourage a mainstream preference for Nature-based infrastructure will ensure that future projects deliver a positive return on investments for climate, biodiversity, and more resilient communities. The prototype tools we developed will help advance our understanding and the implementation of sustainable and Nature-based infrastructure in new initiatives. Over the coming years, the Nature for Catchments Launchramp will be deployed in more than 100 catchments.

Our work to develop sustainable infrastructure as an asset class will be adapted into the industry-wide FAST-Infra initiative (Finance to Accelerate the Sustainable Transition-Infrastructure initiative), leading more than eighty leading institutions to increase liquidity. The Sustainable Asset Valuation (SAVi) methodology will be applied through the NBI Centre on more than forty projects globally. We will collect more data and build out the repository of case studies and knowledge on the performance of Nature-based infrastructure to drive the transition to nature-positive infrastructure.

> *“Nature-based infrastructure needs to play a significant role in closing the global infrastructure gap.”*
>
> David Uzsoki, IISD

> *“Sustainable infrastructure, and especially Nature-based infrastructure, represents our best hope of achieving the Sustainable Development Goals.”*
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> Louis Downing | CEO | Global Infrastructure Basel Foundation