

EXECUTIVE SUMMARY

INCREASING SUCCESS
AND EFFECTIVENESS
OF MANGROVE
CONSERVATION
INVESTMENTS

A GUIDE FOR
PROJECT
DEVELOPERS,
DONORS AND
INVESTORS



An initiative by:



Federal Ministry
for Economic Cooperation
and Development



INTRODUCTION

Mangroves are under threat globally due to land conversion, overexploitation and other human-induced stressors. Various stakeholders, including governments and non-governmental organizations (NGOs), have been working on the conservation and restoration of mangrove ecosystems for years, yet with mixed results.

To increase the success rate of individual mangrove projects and to ensure the global, long-term success of mangrove conservation efforts, there needs to be:

- An increase in technical knowledge and capacity building
- Longer-term and additional sources of finance, particularly through the engagement of the private sector and the development of longer-term business models
- Sensitized project developers and investors, both from the public and private sectors, on the key factors determining a successful mangrove project and initiative
- Detailed outlines of opportunities to develop and combine new, innovative financing mechanisms for mangrove conservation efforts

As guidance material for mangrove conservation is limited, this report aims to address the gap by providing a set of recommendations and lessons learned, primarily derived from case studies from Kenya, Madagascar and Viet Nam. The target audiences are mangrove project implementers and investors, including public and philanthropic support and private financiers with an interest in mangrove conservation. This report differentiates between two broad categories of investors – non-profit and for-profit impact investors. For the purpose of this report, the term “investor” also includes the traditional grant provider, typically known as the funder.

For more detailed information and references see the full publication:

Flint, R., D. Herr, F. Vorhies and J. R. Smith 2018. *Increasing success and effectiveness of mangrove conservation investments: A guide for project developers, donors and investors*. IUCN, Geneva, Switzerland, and WWF Germany, Berlin, Germany. (106) pp.

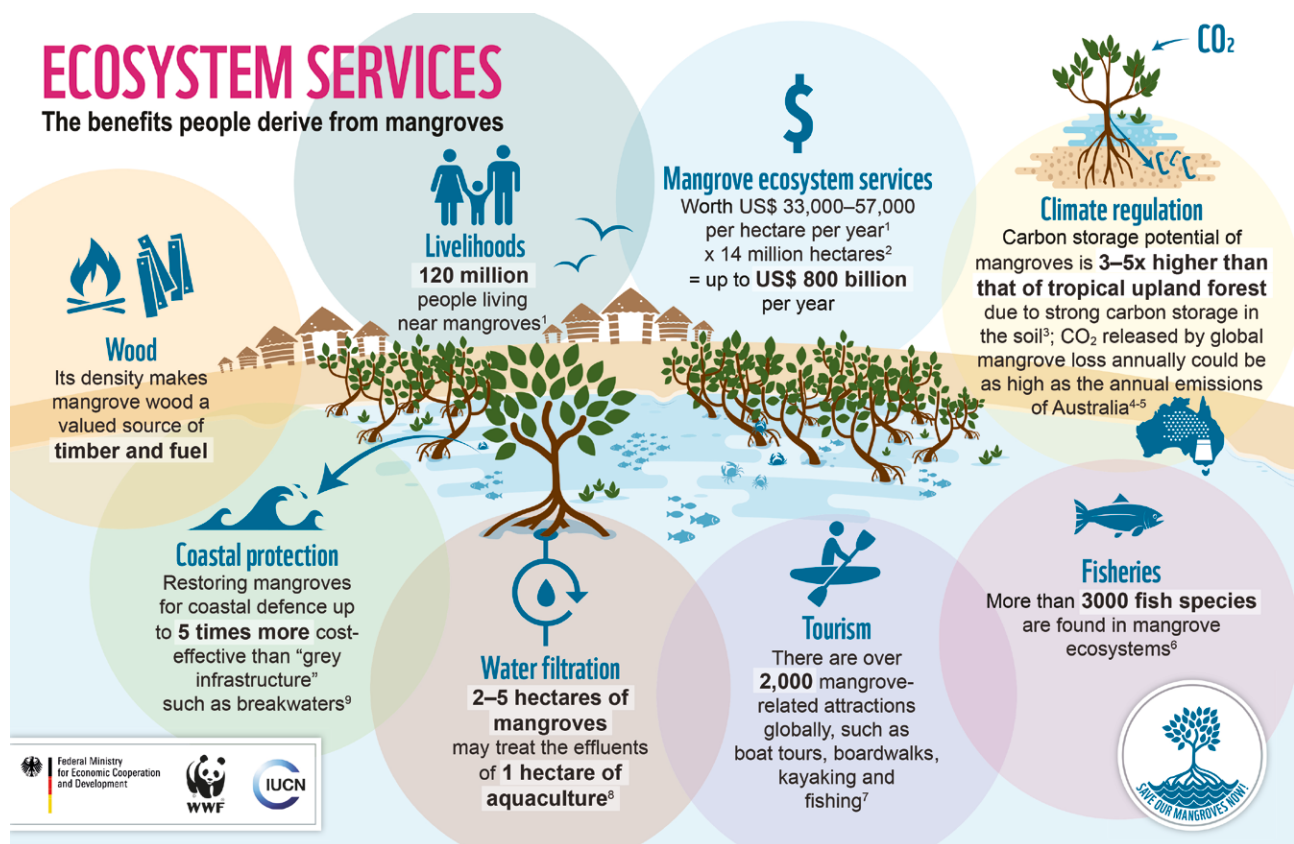


THE BUSINESS CASE FOR MANGROVES: WHY INVEST IN MANGROVES?

Mangroves provide valuable ecosystem services estimated to be worth about US\$33,000-57,000 per hectare, and play an important role in climate change mitigation and adaptation. Conservation of this ecosystem has also been shown to contribute to the goals of the UN Sustainable Development Goals (SDGs) and other national and international environmental targets and commitments (e.g. Convention on Biological Diversity Aichi targets, UNFCCC Paris Agreement).

Investing in mangroves can result in a number of environmental and social benefits (see Figure 1). Some of these benefits can provide revenue back to investors, such as those engaged in fisheries, the carbon market or tourism. Yet despite the increased recognition of value derived from mangrove forests, these ecosystems are still being degraded, lost, or poorly restored.

Figure 1. Ecosystem services and benefits derived from mangroves



Sources: ¹ UNEP, 2014 • ² Giri et al., 2011 • ³ In the Indo-Pacific region: Donato et al., 2011 • ⁴ Up to 450 million t CO₂: Pendleton et al., 2012 • ⁵ In 2015: EDGARv4.3.2., 2018 • ⁶ Sheaves, 2017 • ⁷ Spalding et al., 2016 • ⁸ Primavera et al., 2007 • ⁹ In Vietnam: Narayan et al., 2016

SUCCESSES AND CHALLENGES: WHAT TIPPED THE BALANCE?

Summary of key activities - their successes and challenges from research and case studies from Kenya, Madagascar and Viet Nam.

Mangrove conservation-related activities		
Research and design	Common success factors	Common challenges
Collection of adequate baseline data and assessments. This should include considerations on projected climate change impacts	Assessing proper baseline to monitor impacts Well-conducted and collected baseline data allow for monitoring of success indicators during and at the end of the project. This will also help inform project managers and investors of the project's progress.	Project design Some of the successful carbon payment projects did not include soil carbon in their calculations, which means that when they are paid for carbon sequestration, the majority of the carbon actually stored is not taken into account.
Engagement and understanding the local community and its potential to develop socially and financially	Understanding community needs Projects like Mikoko Pamoja in Kenya would not be the success they are without an engaged and motivated community. To encourage both motivation and engagement, the needs of the community in question need to be assessed and addressed towards their eventual development for the direct benefit of community members.	Generating cash flow Since mangrove benefits are often hard to monetize, project managers tend to find generating cash flow (from impact or for-profit investors) at the start of a project a substantial challenge. Cash flow can be fostered by trails and boardwalks for ecotourism or solar panels for energy generation, but will often depend on regulatory requirements and industry certifications to show real economic value and premium pricing.
Management activities	Common success factors	Common challenges
Project management and coordination	Capitalizing on coordination and training Effective coordination of multiple stakeholders in a given mangrove project or programme has provided long-term positive impacts for both mangroves and dependent communities. Implementing agencies and community organizers could also contribute to greater success rates if well-trained and equipped by the appropriate environmental specialists. Success factors in the Philippines noted that monitoring and field visits increased under guidance of better trained project managers.	Management skills and knowledge Incomplete or lack of training of project managers and designers has resulted in poor choice of location and species selection for replanting projects. Uncoordinated efforts to conserve and restore mangroves can often result in competition between users and agencies and redundancy of conservation and social development efforts.
Community engagement in decision-making and implementation; co-management set-up	Quick returns The support seems linked to a quick turnover of financial rewards that have a direct and positive impact on communities, along with the understanding that these rewards will continue for the duration of the project.	Lack of community involvement Lack of community involvement is one common factor for project failure. In some cases, locals were found to damage restoration sites. This could be due to both lack ownership and/or frustration over feelings of disempowerment.

Management activities	Common success factors	Common challenges
Community development (e.g. education, clinics, etc.)	Community development Offsetting the transition costs for the communities by providing alternative timber sources, for example, provides community members with a better chance of seeing fast, positive results.	Lack of motivation Care must be maintained to ensure that any of these advantages are clearly linked of the health of mangroves rather than finding a situation where mangroves again become another resource freely available for the sake of development.
Management of hydrology (to facilitate natural regeneration)	Facilitation of natural recovery Research shows that projects were successful and mangroves more resilient when natural recovery was facilitated.	Managing competing needs Managing upstream infrastructure to restore mangrove hydrology can be a complex undertaking since it can involve elaborate infrastructure like roads and dams; both of which once built take political will and effort to remove. Managing projects risks Investors are weary of the inherent risks attached to the unpredictable and complex nature of natural systems, introducing too many unknowns into business activities and potential revenue.
Restoration and/or replanting of mangrove forest and seedlings	Natural regeneration over replanting For investors interested in carbon credits and payments for ecosystem services, this is much more successful than mass planting.	Replanting over natural regeneration Studies found that a major factor for project failure was due to the planting of mangroves in habitats unsuitable to their natural requirements.
Sustainable use of mangrove area, including wood, food items, physical area, etc.	Sustainably used mangroves All case studies showed a move by local communities towards sustainable use of their mangrove resources to produce a success.	Maintaining motivation Success here seems to be linked to an increase in short-term income or other success indicators. The challenge is to plan for some form of return benefiting local users to keep them motivated into the future of the project.
Improvement of current and sustainable livelihoods and diversification of income sources	Income and livelihoods Alternate sources of resources and income to mangrove-based livelihoods will take pressure off exploitation of mangroves and allow them to recover.	Finding the right fit Managers have struggled when attempting to replicate alternative sources of income in neighbouring communities.
Site protection and enforcement of objectives	Protecting the investment Enforcement of the project objectives (i.e. sustainable resource use) is highly important to ensure the community reaps the benefit of their management strategies rather than a rival community. This includes regular maintenance of the site.	External forces Migrant fishers and users may cause difficulties here if the protective measures of a project are not strong.
Project monitoring and reporting	Transparency Investors would be attracted by transparent reporting and independent evaluation as well as appreciative of the good public relations, resulting from this transparent and rigorous reporting.	Training and capacity building Lack of appropriate training and capacity building for locals has also been a factor identified as resulting in project failure. Locals are needed to continue monitoring and implementation after the end of projects. From the point of view of investors, a lack of monitoring and reporting has been a failing of the conservation sector and one preventing investors from showing greater interest.

Widespread challenges in mangrove projects have a few key factors in common, such as:

- Inadequate planning
- Difficulties in setting up projects so that they can maintain their activities and impacts beyond dedicated funding support, e.g. little evidence of generating long-term sustainability including through cash flow
- Challenges in policy and legislation linked to the legal status of mangroves and shortcomings in law enforcement, (limited) use of coastal and marine resources and land tenure
- Focus primarily on (mass) replanting efforts to the detriment of a holistic restoration and management approach
- Inherent risks related to working with an unpredictable and complex natural system

INVESTMENTS IN MANGROVE CONSERVATION: OUTLINING THE PLAYING FIELD

While mangroves have been the source of goods and services throughout history, it is only since the 1970s that their loss has been recognized by the international community. By the 1990s, NGOs around the world had engaged in conservation efforts to ensure they were being either protected or restored. Such efforts increased even further after the Indian Ocean tsunami in 2004, which triggered the launch of large-scale mangrove conservation initiatives like Mangroves for the Future.

Grants from government agencies and NGOs were the main source of funds at that point. Since 2015, mangrove conservation has been mainly driven by the need to mitigate and adapt to climate change and the recently adopted Sustainable Development Goals. The more successful conservation projects tend to be designed in a holistic way with a range of benefits to a variety of stakeholders. This has increasingly raised the awareness of for-profit investors that impact investments can be a valuable addition to their clients' portfolios.

POTENTIAL, RISKS AND NEEDS: MANGROVE INVESTMENTS IN RAPIDLY CHANGING ENVIRONMENTS

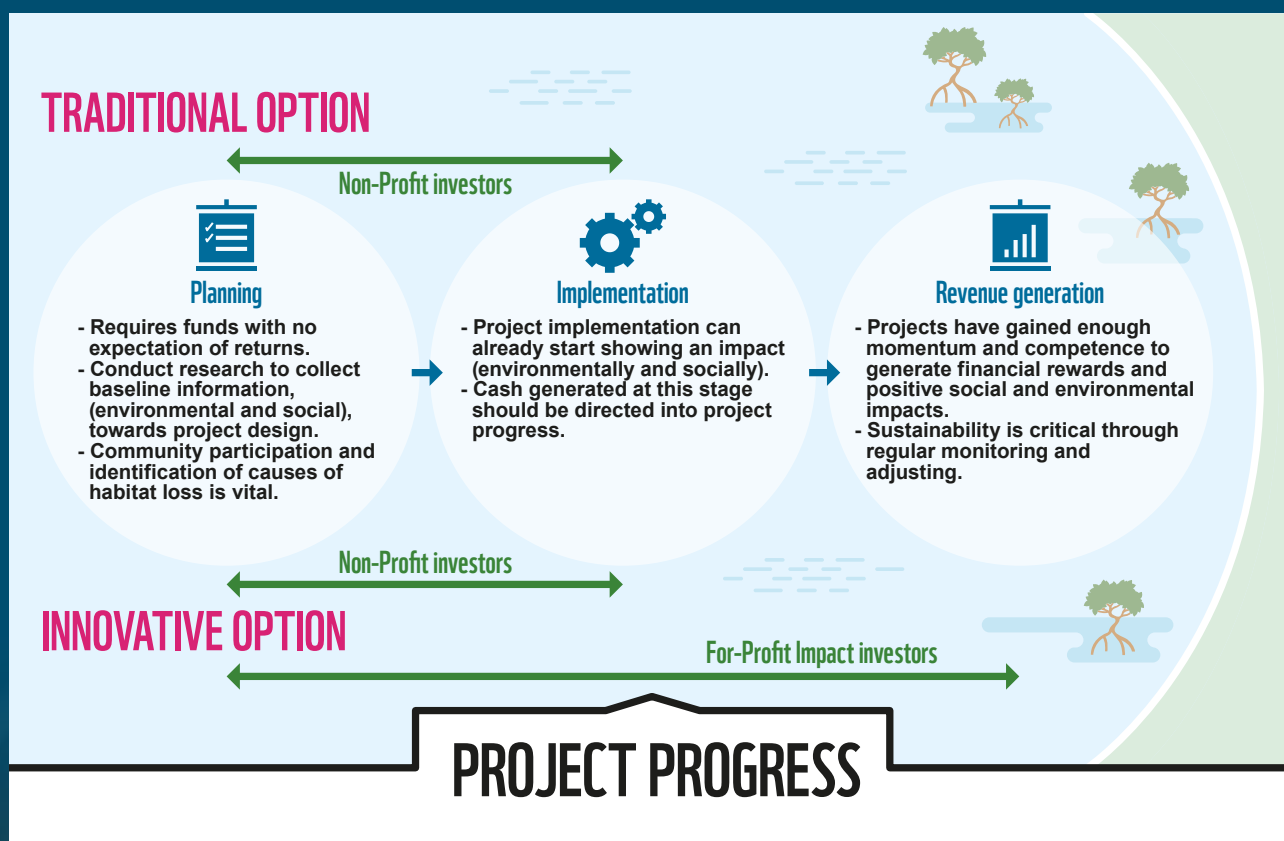
The US\$300 billion gap (estimated from three respected sources¹) in conservation finance, including and beyond mangroves, needs to be overcome with an increase in available donor funds alongside a joint sharp increase in private sector involvement. Private engagement in, for example, the Livelihoods Fund is an instance of private companies teaming up with technical experts and NGOs to invest in mangrove conservation and restoration projects. However, the joint execution of projects with the private sector is still an exception. Large consortiums between NGOs and development agencies, however, have the potential to provide a wealth of experience in implementing effective coastal and marine conservation projects, specifically related to mangroves.

New research suggests that blended finance could fast-track investments into mangrove conservation and substantially contribute to de-risking such projects. The development of new partnerships through existing platforms (like CPIC -the Coalition for Private Investment in Conservation) where non-profit partners can work closely with impact investors should be further explored (see Figure 2). By doing so, non-profit partners would be shielding the impact investors from many of the start-up risks while being the gatekeeper of international environmental and social impact standards.

¹ Credit Suisse combined data from:

Berry, P. (2007) *Adaptation Options on Natural Ecosystems: A Report to the UNFCCC Secretariat*, Oxford.; Gutman, P. (2010) 'Saving biodiversity: an economic approach. Why invest? How much? Who pays?', World Conservation, July, pp. 1–24. doi: 10.1641/B580415.; James, A., Gaston, K. J. and Balmford, A. (2001) 'Can We Afford to Conserve Biodiversity?', BioScience, 51(1), pp. 43–52. doi: 10.1641/0006-3568(2001)051[0043:CWATCB]2.0.CO;2.

Figure 2. The traditional option describes the traditional method, which has been the most common for mangrove conservation partnerships; the innovative option illustrates a method where stages of the project are organized within a public-private partnership



CONCLUSIONS

People can benefit from mangrove ecosystems – socially, environmentally and economically – yet they have to continue to stop and restore what has been lost, and deliver full protection and wiser management plans to what remains. Building up technical capacity and access to data/information where it is underdeveloped and using established knowledge materials will make a noticeable contribution globally.

For current projects, this means investing effort in the project planning stages and embracing a longer timeframe to take advantage of the diverse benefits effective mangrove conservation can provide.

- Investors and project managers will need to understand the underlying ecosystem functions and causes of mangrove degradation before planning a project.

- Greater emphasis should be placed on training, record keeping, monitoring and transparency to ensure long-term environmental and social gains as well as attractiveness to investors.
- Relevant stakeholders also need to be engaged in the decision-making process from the start to improve chances of long-term success.
- To sustain mangrove management from a financial point of view, an increasingly promising option is emerging collaborations between non-profit and impact investors using approaches such as blended finance.

In the future, new finance mechanisms and approaches, alongside new partnerships, have to be set up and strengthened to provide proof of concept. Global standards for mangrove conservation have to be improved, implemented and better monitored in the field.

