

Harnessing Nature-Based Solutions in Malaysia for Climate Action

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Growing effects of climate change on the environment and vice versa increasingly demand for urgent and coordinated responses. As we grapple with the effects of climate change, loss of biodiversity, and depleting resources, there is merit to also accord attention on nature. In Malaysia, there is untapped potential of nature-based solutions (NbS), which can play a critical role in addressing climate change and environmental-related issues. However, scaling up NbS in Malaysia will require synchronised and collaborative efforts from financial institutions and other stakeholders.

Role of NbS in addressing climate change and nature-related issues

NbS involve using ecosystems¹ and biodiversity to address macroeconomic and societal challenges like climate change, nature degradation, and food security (**Figure 1**). They represent a transformational shift in how we typically address these issues to secure our long-term prospects by building stronger ecological resilience. For instance, restoring degraded landscapes, NbS can help enhance water security and build resilience against the impact of climate change thereby ensuring sustained provision of ecosystem services and amplifying socioeconomic benefits. This in turn can contribute to mitigating broader macroeconomic and financial stability risks. The interconnected nature of societal, ecological, and economic systems underscores the importance of embracing NbS as a holistic approach to tackle challenges at both the societal and macroeconomic levels.

¹ An ecosystem is a community of living organisms and their abiotic (non-living) environment interacting with each other to form a functioning system.

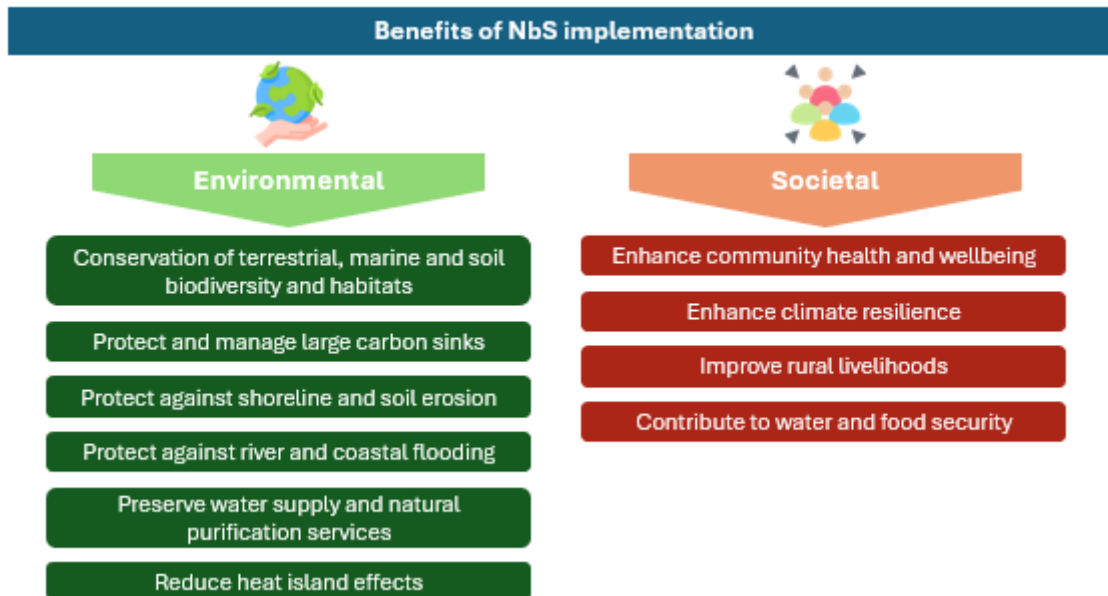


Figure 1: Benefits of NbS implementation

Cohen-Shacham et al (2016) outlines five approaches that can serve as a foundation in creating a practical framework for NbS (Figure 2).

The Five Approaches of Nature-based Solutions

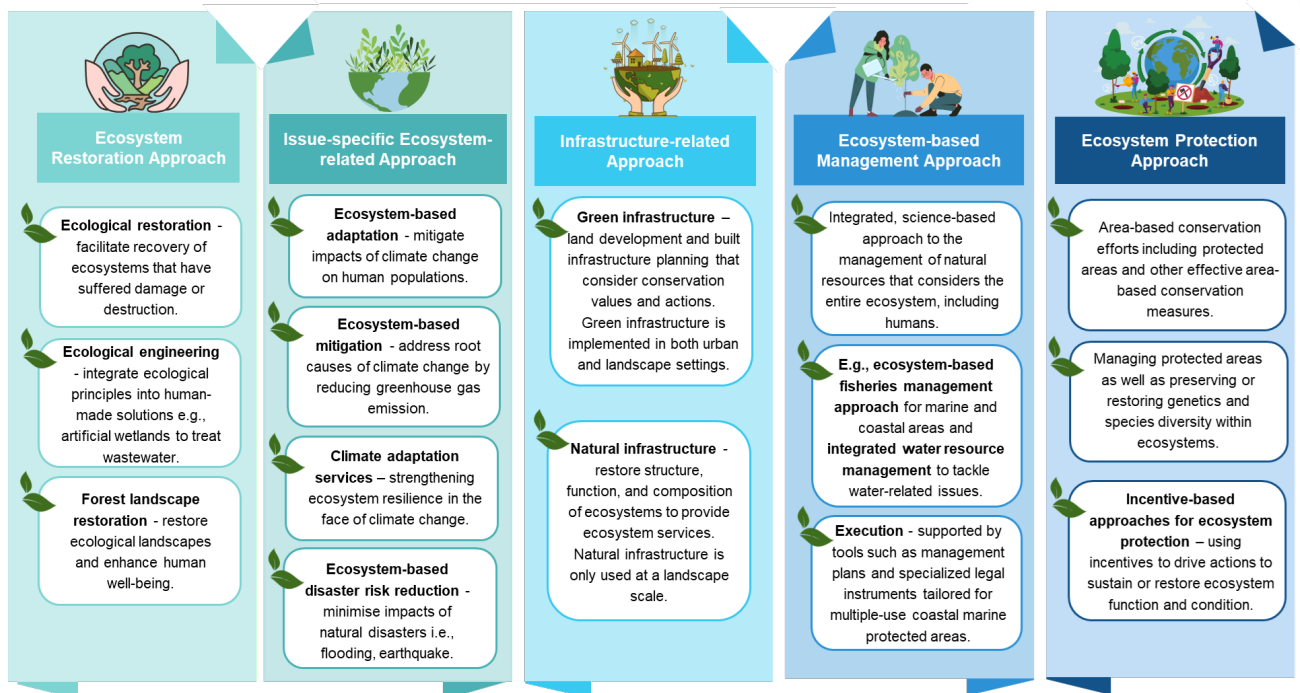


Figure 2: The Five Approaches of NbS

The International Union for Conservation of Nature (IUCN) has developed the Global Standard for Nature-based Solutions (the Standard). The Standard provides the criteria and indicators as well as practical guidance that can be used in developing successful and sustainable NbS (Figure 3). The Standard can also be used to further refine the implementation strategies of existing NbS projects.

8 Interconnected Criteria of the IUCN Global Standard for Nature based Solutions



Figure 3: The IUCN Global Standard for Nature-based Solutions

Nature-based Solutions in Malaysia

In Malaysia, NbS commonly revolve around activities that protect coastal areas and marine ecosystems as well as reforestation initiatives. The focus on these ecosystems is due to their

rich biodiversity and the benefits they offer - like reducing greenhouse gas (GHG) emissions and protecting against natural disasters such as storms and tsunamis.

Several ASEAN countries have successfully rolled out NbS in different ecosystems. These include urban and agricultural areas, with tangible socioeconomic benefits (**Figure 4**). For instance, Thailand has integrated nature-based water management into urban planning. This is due to the importance of water in ensuring food security, economic prosperity, and public health. Indonesia has launched agroforestry projects such as bamboo farming as NbS initiatives. Such initiatives contribute to climate mitigation and prevent deforestation of its tropical rainforests. Bamboo farming, being a sustainable alternative to timber, helps to alleviate poverty in rural communities due to higher raw material yields. Malaysia can learn from these successes and leverage on NbS to meet national climate targets while creating positive co-benefits for both society and nature.

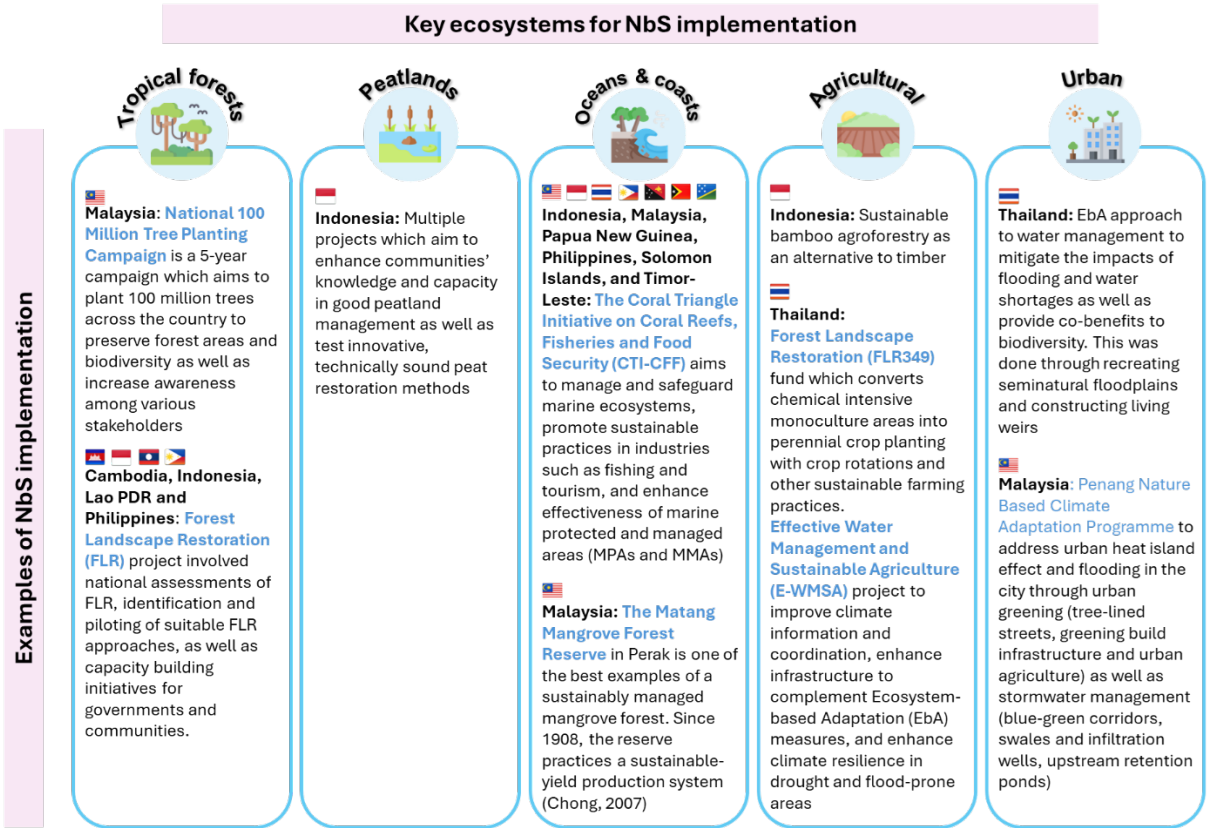


Figure 4: NbS in Malaysia and Southeast Asia

Finance for Nature-based Solutions

The latest data on global financial flows to NbS in 2022 showed that annual flows have risen to about USD 200 billion. But, this falls short of the required annual investments, estimated at USD 436 billion by 2025 and USD 542 billion by 2030. These investments are crucial to meet targets like limiting global warming below 1.5°C and ensuring 30 percent of land and marine areas are protected by 2030. Asia faces a significant funding need - requiring an additional USD 167 billion annually by 2030 (UNEP, 2023).

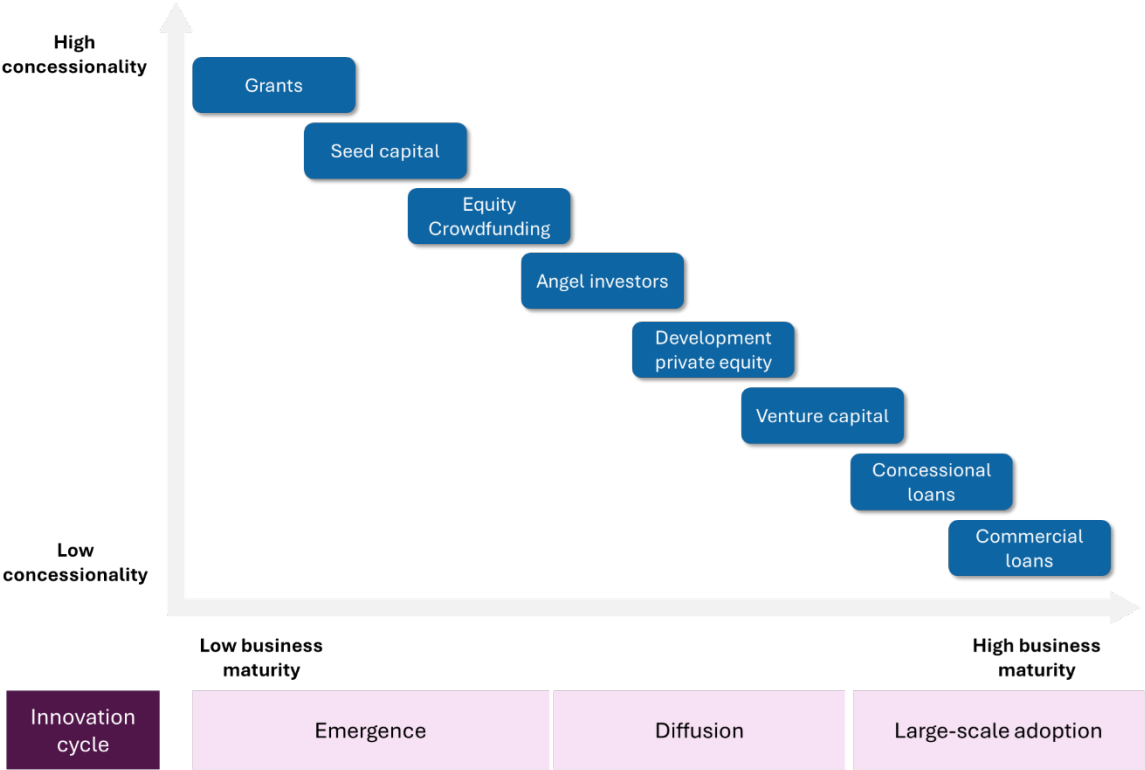
Historically, NbS are mostly funded through public finance. In 2022, public finance comprised 82 percent of total financial flows to NbS (UNEP, 2023). The bulk of public funds goes towards grants to protect biodiversity and promote sustainable practices in agriculture, forestry, and fishing. This aligns with the overarching goal of fostering environmental conservation and sustainable development. In contrast, private finance makes up only 18 percent or USD 35 billion (UNEP, 2023). Over half are channeled to biodiversity offset² and credits as well as for sustainable supply chains³ (UNEP, 2023). With limited fiscal space, there is a critical need to further develop private sector finance solution that can help bridge the current NbS financing gap. The infusion of private capital not only supplements the shortfall in public funds but also serves as a catalyst for innovation and sustainable development of NbS.

Various financial instruments can be used to fund NbS (e.g., grants, bonds, debt-for-nature swaps, and market-based instruments such as equity crowdfunding, biodiversity offsets, and voluntary carbon markets) (Brears, 2022). Early-stage NbS with higher risk can be supported by grants, seed capital, or concessional loans. As NbS mature, access to larger funding sources becomes possible through non-concessional financial instruments like venture capital

² Biodiversity offsets are measurable conservation outcomes designed to compensate for adverse and unavoidable impacts of projects towards biodiversity, in addition to prevention and mitigation measures already implemented.

³ For example, sustainable supply chain certification and conservation agriculture.

and commercial loans (**Figure 5**). Integrating NbS into the financial system enables financial institutions, working in collaboration with key stakeholders, to use their expertise and resources to mobilise the substantial capital required to scale up NbS (**Figure 6**).



Adapted from Green Climate Fund Working Paper No. 5: Making blended finance work for nature-based solutions

Figure 5: Available financial mechanisms to support scaling-up of NbS

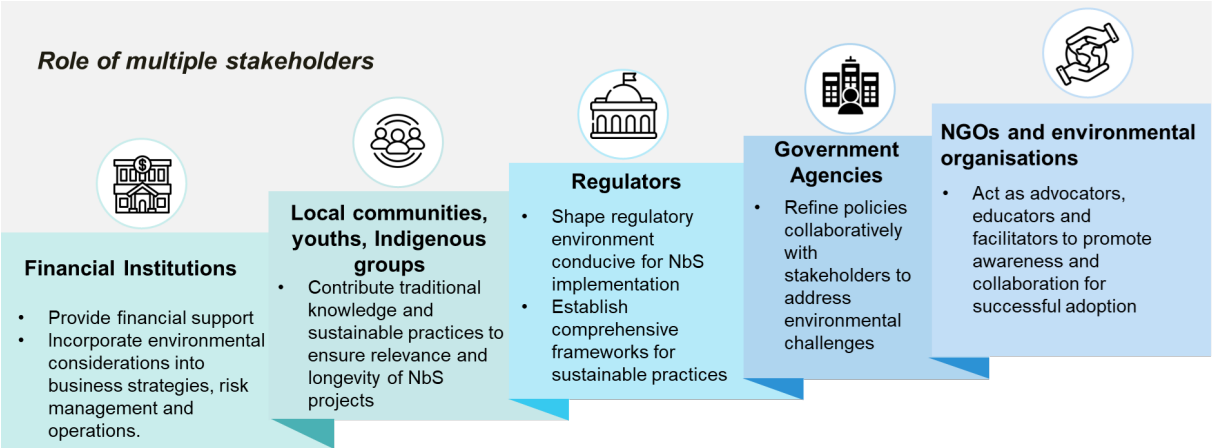


Figure 6: Key Stakeholders for Successful Implementation of NbS

NbS success also relies on research effort, collaborative data-sharing, and strategic partnerships. Research on Malaysia’s biodiversity and ecosystem services would help to

identify key areas for NbS initiatives. Incorporating socio-economic data ensures NbS strategies are aligned with Malaysia's unique biodiversity and local needs. Active engagement in international fora allows Malaysia to gain insights, learn from other countries, and foster impactful collaborations for ecosystems and communities.

Conclusion

NbS hold great potential in Malaysia with innovative approaches to tackle climate change, biodiversity loss, and societal vulnerabilities. While current NbS efforts focus on tropical forests, marine, and coastal areas, there are opportunities to implement NbS for various ecosystems. Collaborative efforts are essential to overcome existing barriers and broaden NbS initiatives in Malaysia. This requires a collective commitment to strengthen the nation's resilience against environmental threats and promote a harmonious coexistence between human activities and the natural world to secure a sustainable and thriving future for Malaysia.

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