Factsheet Youth Adaptation Forum

NATURE-BASED SOLUTIONS AND CLIMATE-RESILIENT INFRASTRUCTURE



Nature-based solutions (NbS) harness nature's power to create a resilient and sustainable future. NbS are defined as "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges...simultaneously providing human well-being and biodiversity benefits.". Whilst progress has been made in recognizing nature-based solutions as a mechanism for both climate change mitigation and adaptation, there is still a need to develop the capacity of people to implement nature-based solutions, as well as mainstreaming nature-based solutions in climate adaptation efforts.



Nature-based solutions could provide up to

37%

of the emission reductions needed to achieve the targets of the **Paris Agreement** Every 1 DOLLAR invested in NbS can yield 10 DOLLARS of benefits

NbS could create **395 MILLION** jobs by **2030**



Mangroves can reduce annual flooding for more than

18 MILLION PEOPLE



To limit
temperature rise
below 1.5°C,
annual
investments in
NbS must

TRIPLE BY 2030

MAIN CHALLENGES FACED BY YOUNG PEOPLE TO ENGAGE WITH NATURE-BASED SOLUTIONS AND CLIMATE-RESILIENT INFRASTRUCTURE



Inadequate funding and pervasive poverty, especially in underprivileged regions, remain major obstacles



Lack of access to climate education and information



Exclusion from decision-making processes due to generational gaps and bureaucratic processes



Urbanization and infrastructure constraints



Limited access to technology and digital tools WHAT CAN YOUNG PEOPLE DO TO ENGAGE WITH NATURE-BASED SOLUTIONS OR CLIMATE-RESILIENT INFRASTRUCTURE?



Build knowledge by pursuing education, engaging in research, and sharing key insights



Engage in digital or on-the-ground advocacy to push for policy changes supporting nature-based solutions



Raise awareness by using storytelling



Create climate-smart projects and partnerships



Start local, beginning with small community actions and build from there



ENVIRONMENTAL RESTORATION ACTIVITIES, INUKA, YOUTH4NATURE Melyn Abisa Khwanga, Kenya

INUKA - the Swahili word for "rise up" - is Youth4Nature's for-youth by-youth nature-based solutions accelerator pilot project in Kenya. It involves three youth teams engaged in various environmental restoration activities. One of the teams, 'Nature and People as One', has developed a Farmer Managed Natural Regeneration initiative for arid and semi-arid regions. Another team, named 'Big Ship', works along the coastline, in Tudor Creek on mangrove restoration projects. Finally, the last team, 'Friends of Ondiri' works on wetland rehabilitation in Kikuyu, to keep the Ondiri wetland as a source of biodiversity and freshwater.

The INUKA project has seen significant success in several areas, particularly in biodiversity restoration, sustainable livelihoods, and community engagement. Key achievements include the restoration of mangroves along the Kenyan coast, the integration of fruit trees within Farmer Managed Natural Regeneration (FMNR) areas, and the development of ecotourism through boardwalk construction in mangrove forests. Additionally, the project has successfully involved local communities, with youth teams leading efforts tailored to their ecosystems, and has promoted sustainable livelihoods through initiatives like beekeeping.



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LIVING BUILDING IN SHENZHEN, Cenhao Wang, China

The city of Shenzhen has experienced rapid urbangrowth which led to the construction of numerous skyscrapers. These types of traditional building are resource-intensive and contribute significantly to carbon emissions. The university of Tianjin has therefore decided to construct the student center of its new campus in accordance with the Living Building Challenge. The Living Building Challenge is centered on seven key aspects: water, energy, equity, beauty, materials, place, health, and happiness. Cenchao's focus within this broader initiative was specifically on the "water" component, where the goal was to achieve net positive water consumption, meaning that the building should produce more water than it consumes. She conducted preliminary case studies and visited other buildings certified under the Living Building Challenge to learn how they manage water systems. Her work included developing a water system for the student center that could harvest and purify rainwater and treat greywater for reuse in irrigation and toilet flushing.

The project successfully brought together students from various disciplines, encouraging them to contribute diverse ideas and perspectives.



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KEY RECOMMENDATIONS



The success of a project depends on ongoing management and training



Staying updated with the latest research to fill the innovative ideas



Leverage social media for good and to promote efforts towards mangrove conservation



Nature-based solutions implementation should be context-based and participatory



Mangrove Matters PH is a youth-led organization advocating for the protection and wise-use of mangroves. Through their Mangrove Nursery Management Workshop they were able to train community members, specifically women, in handling the mangrove nursery which is crucial in mangrove reforestation. As such, proper mangrove planting protocols were also discussed to fulfill higher survival rate in planting. Furthermore, the organization was able to provide the necessary supplies and equipment needed for the enhancement and expansion of the mangrove nursery like mesh nets, shovels, trowels, bamboo, nylon, and polybags. This inclusive initiative is a way to reforest mangroves and to promote their environmental and social benefits to the people and to the environment. This project was funded by Kabanatan: A Mangrove Conservation Awareness Project.

The mangrove nursery generated income to the communities who manage the mangrove ecopark. The expansion and improvement of the mangrove nursery scaled up its capacity in providing seedlings to people who wish to plant mangroves and these seedlings are being sold at an affordable price (Php10 per mangrove seedling = $\{0.16\}$). Proceeds go the communities and for the maintenance of the mangrove nursery.





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MORE INFORMATION

TThe Global Center on Adaptation (GCA) is an international organization that promotes adaptation to the impacts of climate change. The Youth Leadership and Education Program aims to put young people at the forefront of advancing the adaptation agenda.

About the fact sheets

This fact sheet is part of a series that presents information collated from the Thematic Youth Adaptation Forums held between March 2024 and August 2024. The information seeks to build the knowledge of young people on thematic areas of adaptation, foster a global knowledge transfer on good practices of adaptation solutions, encourage innovation, and accelerate adaptation action amongst young people.

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