

Beyond 315 – Building on NGC’s Reforestation Programme

In sustainable development discourse, forests are most often discussed in the context of carbon capture and storage strategies. Photosynthesis converts carbon dioxide into building blocks for plant tissue, actively sequestering carbon into plant biomass. The world’s forests, therefore, serve as massive vaults for carbon, and crucial bastions of climate stability.

While indisputably important, however, the carbon storage potential of forests is but one of the features that make them valuable in the quest for sustainable development. The United Nations Sustainable Development Goals (SDGs) cover a range of environmental, societal, governance and humanitarian concerns, all integral to the future we envision for our planet. Although forests are explicitly tied to one of those goals, these ecosystems can directly, and indirectly, support the achievement of other sustainability targets associated with health, food security and economic diversification.

After managing a 315-hectare reforestation exercise, The National Gas Company of Trinidad and Tobago Limited (NGC) is today looking to leverage that versatility of forests to support sustainability more holistically, through an extension of its project into a broader programme called ‘Beyond 315’.

Leveraging the full potential of forests

In 2005, when NGC first launched its reforestation programme, the ecological benefits of restoring degraded forests were foremost considerations in the design of the project. Also built into the design were provisions for the empowerment of groups in project communities and the creation of longer-term employment opportunities.

This project has since delivered its target outcomes, positively impacting the site communities of Rousillac, Mayaro, Rio Claro, Moruga and Guapo/Parrylands in southern Trinidad. The benefits have also accrued at the national level, as carbon sequestered by the replanted forest is helping the country meet its emissions reduction targets.

The programme’s success notwithstanding, NGC has recognised there are unleveraged opportunities to extract greater value for the country from its replanted forests, particularly through the integration of agroforestry and eco-tourism components. As such, the Company is currently pursuing the expansion of its reforestation exercise into a programme called ‘Beyond 315’.

A look at agroforestry

One of the distinguishing features of the expanded reforestation initiative will be the incorporation of an agroforestry component.

The US Department of Agriculture defines agroforestry as “the intentional integration of trees and shrubs into crop and animal farming systems to create environmental, economic, and social benefits”.¹ In essence, this is a cultivation practice that intersperses trees among food crops or pasture. It includes farming within forests or along forest boundaries, as well as planting of tree-crops such as bananas, citrus and cocoa.

Agroforestry is a highly effective farming strategy because of the specialist services rendered by trees. Trees help stabilise soil and build its organic matter, improving its overall quality for food production. Their canopies help protect against harsh sunlight and create microclimates that favour growth of certain crops. Forest biomes can support pollination and fertilisation of crops, and resident species can even be harnessed for food production, as with apiculture and the production of honey.

Agroforestry also promotes sustainable land use, as trees renew soils and preserve natural habitats, whereas traditional agricultural practices often compromise both. Importantly, agroforestry helps build the resilience of agricultural production and thereby contributes to food security. This is

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The Beyond 315 initiative will engage and impact several UN SDGs.

a major concern in modern society, especially given recent international developments.

The *outcomes* of agroforestry are not the only benefits to society. The process itself creates opportunities to engage and empower site communities, local farmers and co-operative groups, and even young entrepreneurs. The more participatory the process, the greater the socioeconomic value that can be created.

In designing its broadened ‘Beyond 315’ programme, NGC is taking all these benefits into account. The Company is also exploring the integration of hydroponic systems and digital container farming at its reforestation sites, as well as community-oriented gardens that allow local tourists to plant and pick their own crops. Adjunct programme objectives will include building capacity among community producers and other stakeholders to support or even administer these ‘Beyond 315’ initiatives.

Eco-tourism benefits

In addition to agroforestry, NGC is considering the integration of eco-tourism components to deepen the impact of its reforestation programme.

Forests and other natural enclaves are destinations of choice for people looking to escape routine, exercise in the outdoors, or simply recharge in nature. Walking and biking tours along nature trails are popular among all ages, billed as both getaways for adventurers and relaxation retreats. Environmental hobbyists such as bird watchers actively seek natural habitats to pursue their pastimes. There is also a range of new recreational activities that leverage forest canopies, such as ziplining and ‘tree-walk’ canopy tours.

With urban sprawl increasingly encroaching on green spaces, carefully managed nature reserves are today premium real estate for the development of eco-sanctuaries. In light of this, NGC is exploring how it can

leverage its reforested acreage to promote sustainable eco-tourism. The possibilities are as wide-ranging as they are exciting, given the gamut of recreational interests that can be accommodated. There are even opportunities to build craft shops and cafés that market products harvested from the forest farms or created from sustainably sourced forest materials. The knock-on effects for local producers and artisans, their communities and the national economy are appealing benefits.

Project next steps

Planning and development of NGC’s expanded reforestation project is well underway. In 2022, the Company intends to complete project scoping; conduct stakeholder outreach to solicit feedback and input; onboard strategic partners and resources; and finalise targets and business plans. NGC will be working very closely with site communities during this planning phase to ensure the final project has the necessary local buy-in and that any potential concerns are identified and addressed prior to implementation in 2023.

Once realised, the evolution of NGC’s reforestation exercise into the ‘Beyond 315’ initiative will represent another leap forward for the Company’s green agenda. Apart from the environmental benefits of expanding the reforestation programme, greater public involvement in the programme’s activities will have important implications for sustainable development. By creating positive and memorable experiences for people within these spaces, NGC will help build a culture of appreciation that is necessary for sustainability to be achieved – project participants and visitors will see value in preserving green spaces and will likely be more attentive to how they impact nature.

This critical outcome is one that NGC is intent on achieving. As our windows for meeting time-sensitive sustainability targets become smaller, greater public awareness and participation in the campaign for sustainability give us the best chance for success.