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PRESIDENT'S MESSAGE

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Evolve

According to the Darwinian theory of evolution by natural selection, for any given species, the specimens whose lineage gets perpetuated are those which are best able to function and thrive in their environment. Though sometimes overlooked, the environmental factor has just as big a role as genetics – if not bigger – in driving natural selection. This is because a change in the environment of a species – its habitat or climate for example – might favour survival of specimens with different traits. In other words, under changed environmental conditions, tolerance of and adaptability to those new conditions become the determinants of survival.

Just as evolution in the natural world is predicated on adaptation, the same holds true in the world of business. We live in an age of constant flux as technology, consumer demands, geopolitics, and cultural norms are consistently changing around us. For businesses whose operations and markets are directly impacted by these changes, flexibility and adaptability are crucial to survival. In the energy sector, there has been a massive change in our operating environment, with a paradigm shift toward cleaner fuels and technologies.

In recent years, many hydrocarbon-based businesses have lifted anchor from fossil fuels and are investing increasingly in renewable sources of energy. Others are pursuing strategies to reduce the carbon impact of their traditional businesses, through carbon capture, increased efficiency and carbon offset mechanisms. This is the environment in which NGC and



its subsidiaries now operate, and our survival as a business depends on how we respond to the change around us.

Adapting and evolving

The NGC Group has embraced the challenge to change. We now have a well-established sustainability philosophy, and have appointed dedicated teams to identify and pursue opportunities to expand our business along clean energy corridors. In the renewable energy space, we have made most progress with solar technologies, through the work of subsidiary National Energy. Notable among their efforts is the work being done to support advancement of a Caribbean Solar PV Assembly Project in Trinidad and Tobago.


On the alternative fuels front, NGC is looking to segue its energy marketing and trading business into the realm of green and blue hydrogen-based commodities. Methanol and ammonia

have shown great promise as cleaner fuels, and we are actively scanning for potential opportunities in those markets.

Even as the world transitions to renewable energy, natural gas will remain integral to the energy mix, given its market penetration, availability and its clean-burning properties relative to oil and coal. Accordingly, The Group is looking to strengthen its presence in the global natural gas business. In that regard, Group member Phoenix Park Gas Processors Limited (PPGPL) has now acquired another NGL asset in North America and is intent on further expansion.

Our business portfolio is not the only thing we are evolving. For instance, NGC is preparing to expand its signature reforestation programme into a more holistic sustainable development project called 'Beyond 315'. On the culture front, the Company has proudly supported a ground-breaking music transcription project undertaken by the NGC Trinidad and Tobago Sweet Tassa group, which aims to ensure the survival and evolution of the art of tassa drumming.

In this issue of *GASCO News*, we are pleased to highlight some of these efforts we are making to adapt to the conditions and demands of our new operating environment and the world around us. The stakes are high, but we are equal to the challenge. ■


Mark Loquan
President

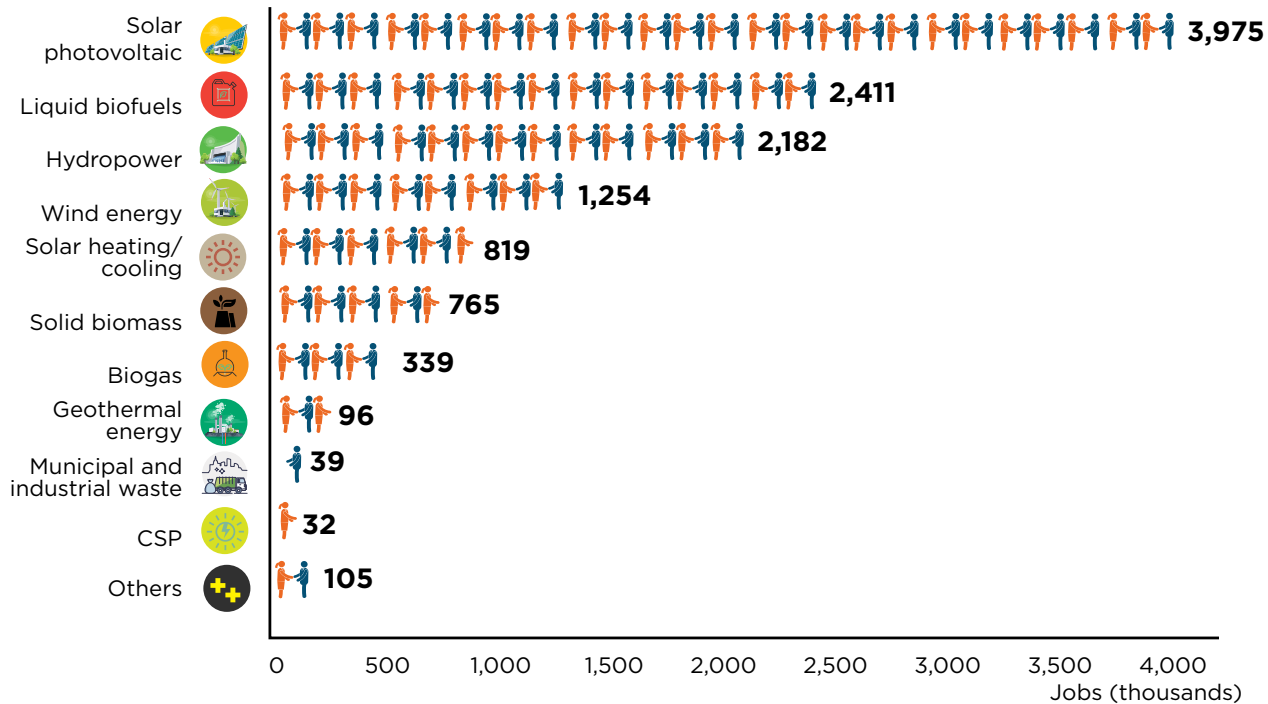
An aerial photograph of a coastal town, likely in the Caribbean, featuring a mix of residential buildings, a beach, and turquoise water. In the foreground, a large, tilted solar panel array is visible, suggesting the theme of the project. The background shows lush green mountains under a bright blue sky with scattered white clouds.

Advancing the Caribbean Solar PV Assembly Project



FIGURE 1: CLEAN ENERGY JOB CREATION

SOURCE: IRENA, 2021



As several Caribbean leaders passionately expressed to COP 26 audiences, failure to act swiftly to address climate change will have dire implications for the region

Globally, investments in the clean energy sector continue to be dominated by investments in renewable energy applications. Within the renewable energy space, data for 2021 shows that solar is dominating new investments and beating all other technologies. According to data from Bloomberg New Energy Finance (BloombergNEF), investment in large and small-scale solar projects rose to a record-breaking \$205 billion, up 19% from 2020, and solar installations were approximately 185GW in 2021, up from 144GW in 2020. With these investments come significant economy-wide benefits.

The clean energy sector, especially solar and energy efficiency, provides several opportunities for meeting climate change goals. It has the potential to absorb significant new job entrants with low and medium skills for installation, maintenance, and construction services. The solar PV industry creates more jobs than

any other sector within the clean energy space (Figure 1 illustrates).

Along with the creation of jobs and reduced carbon emissions, the clean industry offers new avenues for revenue generation, increased entrepreneurial activity and adoption of new technologies that will increase economic activity and ultimately bolster national GDP across the Caribbean. As territories grapple with economic recovery plans, there is a greater need to look closely within the region and capitalise on the abundant natural and human resources that exist to manage our major economic burden - energy expenditure.

Furthermore, the Caribbean has been increasing its demand for renewable energy (RE) and solar energy in particular, to support its Nationally Determined Contributions (NDCs) targets and in pursuit of CARICOM's regional energy targets.

FIGURE 2: CARIBBEAN RENEWABLE ENERGY POTENTIAL
BP STATISTICAL REVIEW, 2021

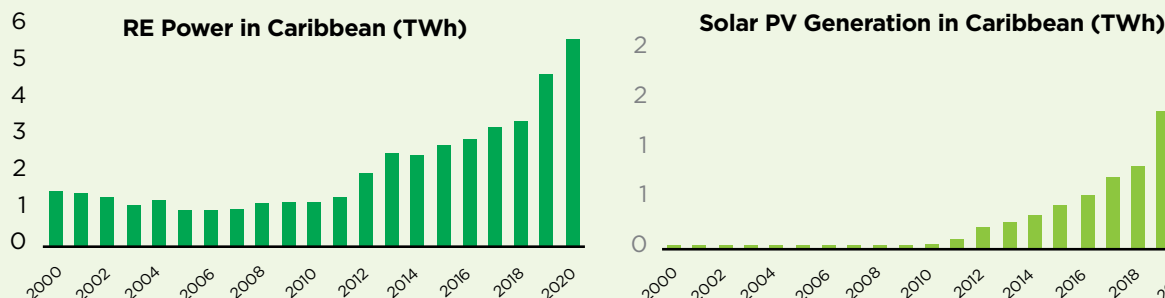


Figure 2 shows the trend in both RE overall and solar PV generation in the Caribbean over the last two decades.

Because the Caribbean region spends an estimated 40% of its foreign exchange on fuels for electricity generation and transportation, a home-grown investment which provides jobs and enables the energy transition is a uniquely synergistic solution to solving multiple challenges. Growing capacity in renewables therefore provides a platform from which other innovations can be developed and layered upon.

In fact, IRENA (2019) estimated that to meet the RE targets set out in Caribbean NDCs by 2030,

an estimated US\$16 billion will be required. The IDB (2019) noted that the net benefits of renewable energy investments in the Caribbean by 2040 are equivalent to US\$18.4 billion.

Post the COVID-19 economic contraction, the pursuit of energy independence will become even more urgent. Conservative estimates value the region's solar energy industry at US\$7.9 billion over the next 10 years. Yet, that level of investment may only lead to an average 57% renewable energy penetration (see Figure 2). The region must be seen as more than

a destination for clean energy technology and carve out its own space along the entire clean energy value chain.

Chinese - Caribbean Solar PV Module Trade

In a February 2022 report from the USDOE, entitled "Solar Photovoltaics Supply Chain Deep Dive Assessment" it was highlighted that 69% of modules produced globally came from the top 10 manufacturers, all but two of which (Hanwha Q Cells, First Solar) are Chinese. Figure 3 shows the dominance of China among the top 10 manufacturers globally.

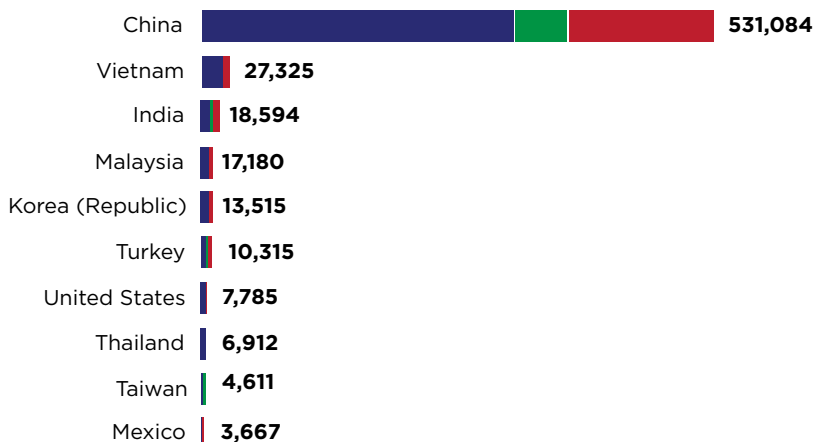
US\$18.4BN

NET BENEFITS OF
RENEWABLE ENERGY
INVESTMENTS IN
CARIBBEAN BY 2040
(IDB 2019)

US\$16BN

TO MEET THE RE
TARGETS SET OUT IN
CARIBBEAN NDCS
BY 2030
(IRENA 2019)

FIGURE 3: CRYSTALLINE SILICON MODULES (MW/YEAR), 2021
SOURCE: BLOOMBERGNEF





What is more interesting is that most new capacity additions are also being developed in mainland China – further contributing to its dominance of the solar PV manufacturing supply chain.

The demand profile for modules from mainland China shows that imports are increasing as countries shift toward the implementation of solar PV projects at the residential, commercial and utility scale to meet their targets and assist in their overarching decarbonisation policies.

Figure 4 shows Chinese panels imported by CARICOM countries for the last seven years. While the overall market is small, it shows that the demand profile is still very concentrated in a few countries. Even during the pandemic for the 2020 to 2021 period, overall demand increased each year.

Figure 5 shows that while Jamaica and Haiti represent the largest CARICOM markets, the Dominican Republic and Cuba have the largest demands regionally for solar modules, accounting for 70% of the Caribbean demand profile, with the Dominican Republic alone representing almost 50% of the total regional demand profile. As outlined earlier, significant capital is required to achieve targets set by the region and thus the demand outlook is positive with significant growth prospects into the future.

Efforts to Advance Solar PV Manufacturing

To support the energy transition and to ensure that local investments realise a sustainable future for our industrial sector, National Energy has been leading the conceptualisation and development of sustainable energy opportunities through projects spanning energy efficiency and the solar energy value chain. These projects include National Energy as a Super ESCO, attraction of solar OEM component assembly, alternative fuels, emerging energy

FIGURE 4: PV EXPORTS FROM CHINA (MAINLAND) TO CARICOM COUNTRIES (US\$MM)
SOURCE: BLOOMBERGNEF

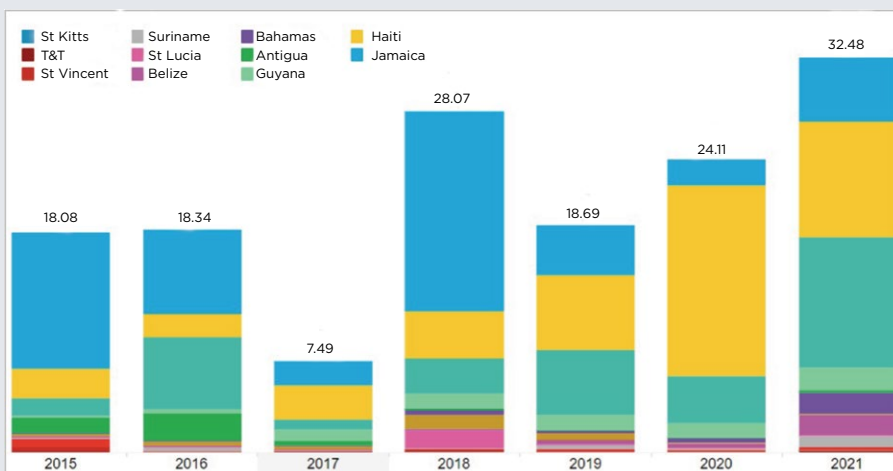
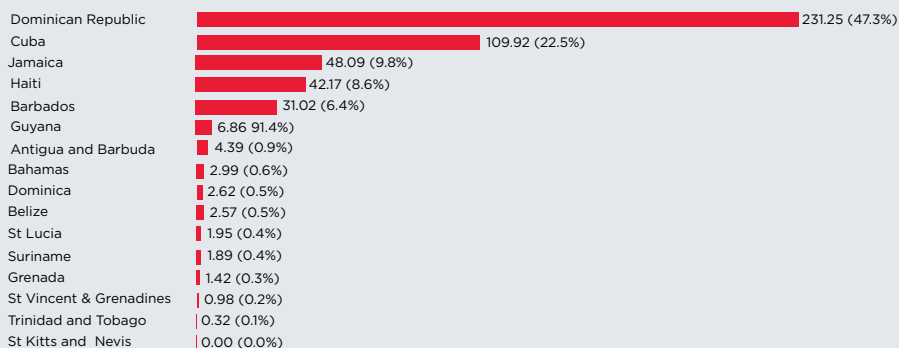


FIGURE 5: CARIBBEAN SOLAR PV MODULE IMPORTS FROM CHINA (US\$MM)
SOURCE: BLOOMBERGNEF



solutions and utility-scale renewable energy technology.

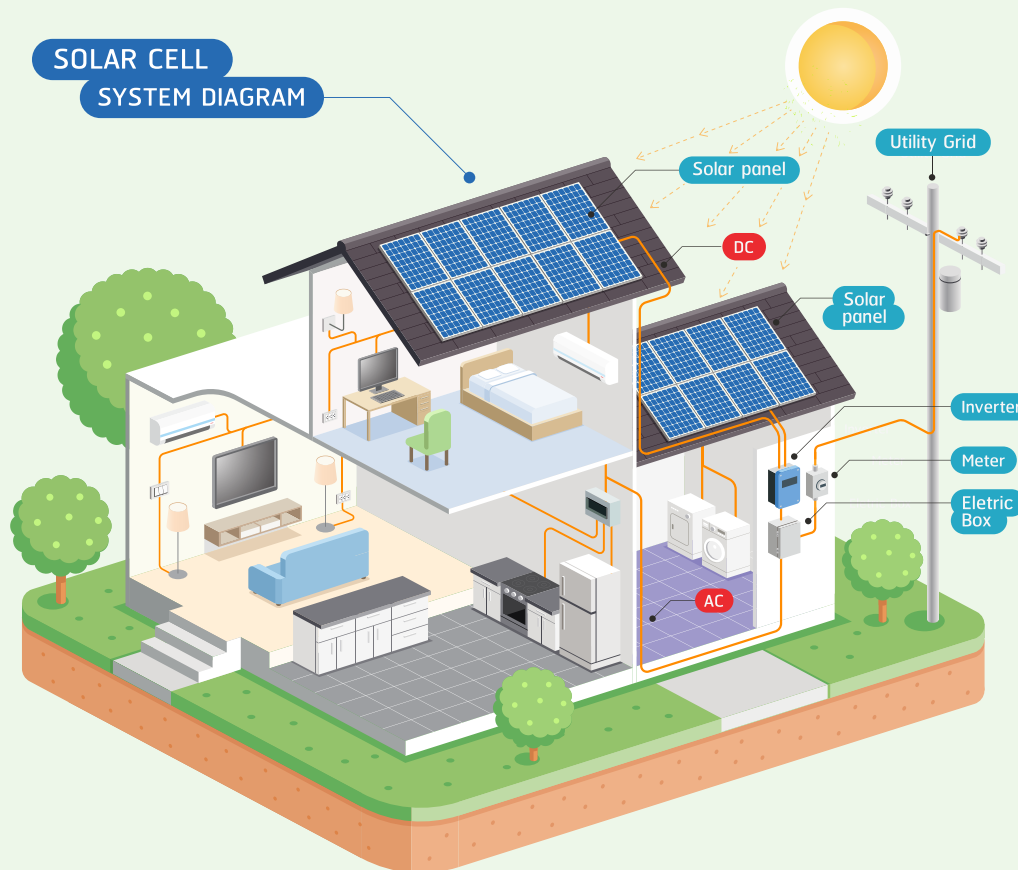
Moreover, The NGC Group has been focusing significant investment and research on renewable energy (RE), energy efficiency (EE) and emissions reduction. Collaborative efforts with the GORTT, academia, energy companies and international organisations have been a focal point for The Group in advancing its Green Agenda and the energy transition.

Previous feasibility studies conducted showed that Trinidad and Tobago has the potential to attain

first-second quartile production costs with respect to the production of the following key components of the Solar PV Value Chain:

- Metallurgical Silicon
- Polysilicon
- Float glass
- Integrated PV manufacturing (ingot-wafer-cell-module)

Drawing upon the local technical expertise, strong business environment and low costs of production, Trinidad and Tobago could seek to become an attractive destination for solar PV manufacturing in the Western Hemisphere.



Capturing the Caribbean market provides access to a skilled labour force in a region primed for investment, with easy access to North and South American markets. As a strategic initiative, capital investment and incentives are available to support the delivery of a Solar PV assembly facility. As the price per unit of solar decreases the reach of solar increases, requiring existing players to quickly scale or sacrifice new market share.

Given these factors as well as the desire to continue to look for opportunities to create an RE manufacturing cluster in the Caribbean, National Energy has continuously sought opportunities for the establishment of solar PV manufacturing to support the region. As such, in 2020, a Memorandum of Cooperation was executed between National Energy and the Caribbean Climate-Smart Accelerator (CCSA) to identify potential investors and collaborators and to develop market and financing opportunities to support the first leg of the clean

energy industry in Trinidad and Tobago. This initial project will be the development and establishment of a Caribbean Solar Assembly facility in Trinidad and Tobago to serve the Caribbean region.

With a typical development timeline of 12 – 18 months for a large-scale assembly facility, it is envisaged that an experienced manufacturer/developer with industry knowledge and extra regional market access will strengthen the overall success of the endeavour.

This initiative represents a consolidation of demand across at least 15 Caribbean territories, working together to create a single market for solar that ultimately provides an investment opportunity for their people, pooling their buying power to access not just solar but development and investment as well. Caribbean demand for energy and in particular, demand for solar, justifies the exploration of a solar assembly facility to feed the region's solar appetite.

Whilst the solar PV industry remains highly competitive and dominated by Chinese manufacturers, the pandemic exposed the risks associated with over-reliance on a supply chain that is entrenched in a single geographic location. Reshoring or diversifying the supply chain will reduce supply risks in the future and affords the region a chance to suitably configure a truly Caribbean Solar Assembly facility.

At the Eighty-Second Special Meeting of the Council for Trade and Economic Development [Energy], Special Strategic Session - Achieving Regional Energy Security Through Enhanced Cooperation and Integration: Considerations for a Regional Approach to Energy Security - A Pragmatic Approach to Regional Energy Integration, Caricom Member States "Endorsed the Caribbean Solar Assembly Concept, presented by the Caribbean Climate-Smart Accelerator (CCSA), recognising the value proposition and benefits that Member States can derive from the venture."

Through the efforts of the Caribbean Climate-Smart Accelerator (CCSA), the Rocky Mountain Institute (RMI) has also expressed its support for the concept. The RMI estimates that roughly 40GW of solar PV, coupled with other clean energy technologies will be required to transition the entire Caribbean region to 90% clean energy by 2040. Further, regional Investment Promotion entities are prepared to assist in this effort to provide a seamless operational establishment.

Current Pursuit of Potential Investors for PV Assembly Facility

After extensive work by National Energy's Sustainable Energy Development (SED) Division, Caribbean Climate-Smart Accelerator



(CCSA) and InvesTT, a detailed investment prospectus for a Caribbean Solar Assembly facility, strategically located in Trinidad and Tobago was developed.

The investment concept is founded on the fact that the Caribbean needs to invest approximately US\$8 billion in solar to meet its energy transition ambitions. If established, this facility will satisfy the consolidated demand for renewable energy from at least 15 Caribbean territories.

The ownership of the plant would depend on the level of equity the project developer wishes to retain, notwithstanding the regional interest to participate in the investment. The size of the facility and the investment required are negotiable, although it is anticipated that capital expenditure of at least US\$25 million will be required for a competitively sized assembly facility.

The investment prospectus includes information on, inter alia: advantages of establishing the facility in Trinidad and Tobago; country projections for investment in solar across the Caribbean; a Caribbean fact sheet; and potential opportunities.

This investor prospectus has generated interest among investors locally, regionally, and internationally

who all expressed some level of interest in various aspects of the proposed PV assembly facility. As such, discussions are ongoing with a few of the interested entities to enable them to better understand the project and make a decision about going forward.

De-risking Asian-Centric PV Module Supply

While a 2021 article from the World Economic Forum pointed out that just-in-time supply, more nimble manufacturing, and automation have led to solar becoming one of the cheapest sources of electricity globally, they were quick to note that "the solar industry is now grappling with supply chain issues that could significantly impact its future".

With increasingly competitive pricing and net-zero targets driving the growing demand for solar photovoltaics, new manufacturing supply-chain models are under consideration to increase local resilience and to ensure continuity of supply. In fact, according to the World Economic Forum, the search for reduced costs and greater capacity expansions have led many prospective manufacturers to explore alternative manufacturing arrangements to gain a competitive edge or support the speed of the transition.



The region is placed at a long-term disadvantage as the manufacturing supply chain is concentrated in mainland China, relegating our region to a consumer of modules. Given solar module importance in realising the transition, having some regional supply options are vital in the event of a supply disruption or spike in raw material costs. It was earlier reiterated that given the increased demand outlook and if Asian capacity is unable to keep up with future demand spikes, having capacity located within the region will further allow us to continue our transition unabated or at least reduce wait times and cost of project development in some instances.

Therefore, despite the intense competition that exists in the solar PV manufacturing landscape, the desire for creating localised clusters of solar PV manufacturing is not unique. For example, in November 2021, Saudi Arabia inaugurated the largest solar PV module factory in the Middle East with a capacity of 1.2 GW at a cost of \$186.9 million.

The factory, according to the Saudi Arabian deputy energy minister, is aimed at “boosting investments in solar energy and diversifying energy sources in our country, in addition to enabling integration with relevant government agencies and the private sector to support the creation of a domestic renewable energy industry”.¹

Further, in February 2022, flexible PV module manufacturer Power Roll opened its solar film manufacturing facility in England with plans to reach 30MW productive capacity by the end of 2022. Power Roll indicated that this initial facility was meant to “demonstrate the manufacturing

process to Power Roll’s licensing partners as well as producing pilot output for testing and demonstration”.²

Also, the National Renewable Energy Laboratory (NREL) Fall 2021 Solar Industry Update report, estimates as much as 12-15 gigawatts (GW) of module assembly capacity can come on stream in the US over the 2021 to 2024 period, supported in part by incentives from the US government.

Conclusion

The benefits of manufacturing activity are well established. The manufacturing sector is the sector that accelerates technological innovation, and its demise negatively affects the growth of all other sectors (Su and Yao, 2017). It is also the sector that has significant backward and forward linkages with other sectors in an economy and is therefore seen as an engine of economic growth. It is these positions which drive National Energy’s relentless pursuit and correlated promotion of an export-oriented solar PV assembly facility, and eventually an overall clean energy manufacturing base, within Trinidad and Tobago.

As such, while we acknowledge that this is a difficult road, we are reminded of the speech by our first Prime Minister who indicated at the sod turning ceremony of ISCOTT in 1977 that we are taking the more difficult road and embarking on a journey to build up our downstream natural gas industry. What is similar today is that we are met with another crossroad and must decide if as a nation and region we will allow ourselves to be relegated to an importer and installer, or if we will seek to build an industry with a manufacturing base. National Energy has explored multiple avenues, with the current approach being that

of an assembly facility, given the importance of manufacturing and the potential supply chain development in the regional solar industry, and even in the wider renewable technology space.

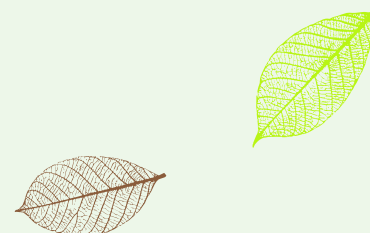
As discussions continue with potential investors/developers, National Energy concedes that a significant collaborative effort across local and regional partners is needed to create an enabling environment for the development of a clean energy industry to serve the Caribbean. We are hopeful that this venture can soon be materialised and become the platform upon which the entire local and regional clean energy technology production and supply base is built. ■

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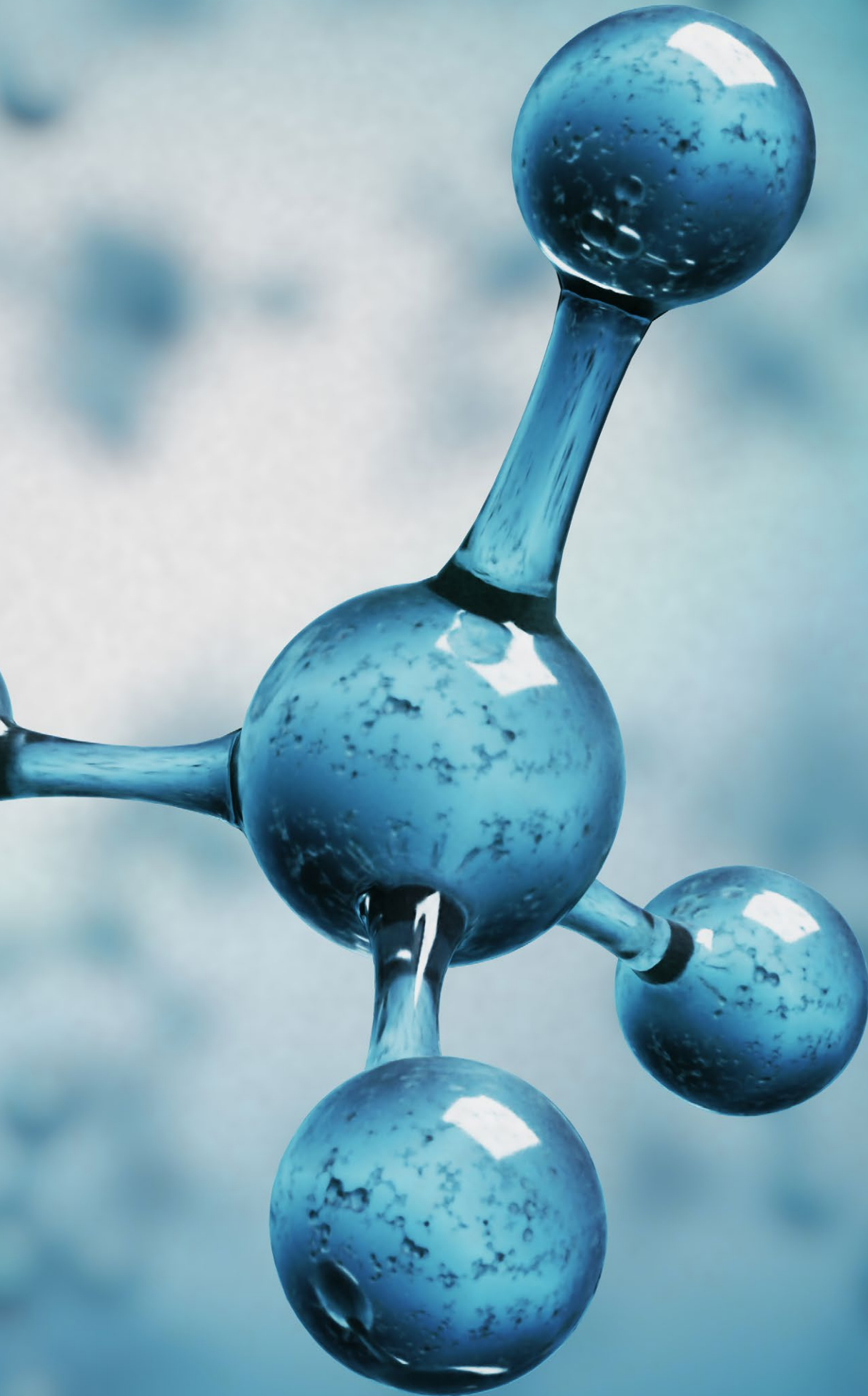
¹ <https://www.pv-magazine.com/2021/11/19/solar-module-factory-with-1-2-gw-capacity-inaugurated-in-saudi-arabia/>

² <https://www.pv-magazine.com/2022/02/25/new-flexible-solar-module-factory-begins-operations-in-the-uk/>



Ammonia and Methanol: Fuelling the Energy Transition



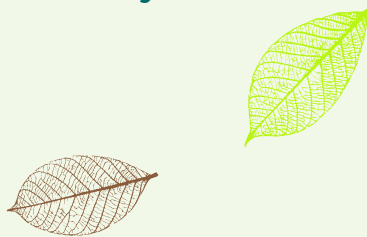




LOW-CARBON AMMONIA HAS IMPORTANT APPLICATIONS IN AGRICULTURE AND SHIPPING



Hydrogen has significant potential to enable the transition to a clean, low-carbon energy system through its use as fuel for power or as a feedstock in industry.



With increasingly stringent emissions regulations and net zero-carbon energy goals tied to Glasgow Climate Pact targets, it seems clear that multiple clean energy solutions will be needed in the short to medium term. Hydrogen has significant potential to enable the transition to a clean, low-carbon energy system through its use as fuel for power or as a feedstock in industry.

There are two forms of hydrogen which are particularly useful - green and blue. Green hydrogen is produced using renewable electricity while blue hydrogen is produced from natural gas with carbon dioxide emissions captured and stored underground.

Hydrogen can be transported by converting the hydrogen molecule into an energy carrier such as ammonia, methanol or liquid organic hydrogen carriers. Ammonia is considered the most promising carrier since it does not release any carbon emissions if used as a fuel, it has well-established logistics and

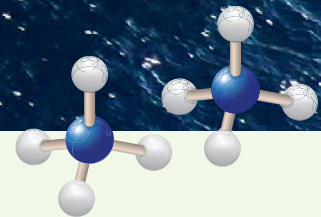
there are mature end markets for the product. Approximately 192 million tonnes of ammonia were produced worldwide in 2020, with global trade estimated at around 19 million tonnes.

However, with the cost of producing green hydrogen presenting a challenge - even considering efficiency gains and the lower levelised cost of energy for renewable energy - the near-term key to low emissions is commercial blue hydrogen, with blue ammonia and methanol allowing current market access.

LOW-CARBON AMMONIA

Industry experts with the international publication house CRU forecast that blue ammonia projects will dominate the project pipeline for the next five years. Beyond 2025, green ammonia projects are expected to take over, with close to 85% of new capacity being green¹

¹ CRU Low-emission Webinar Feb 2022



as technical developments and economies of scale reduce costs. Currently, it is estimated that 70% of ammonia is used for fertilisers, while the remainder is used for various industrial applications, such as plastics, explosives and synthetic fibres.² However, as a hydrogen carrier, it has a role to play in other applications.

In addition to its current main use in the fertiliser industry, low-carbon ammonia has other potential uses which may boost its demand:

Ammonia as a marine fuel:

There is a growing interest in using ammonia in the transportation sector as a shipping and marine fuel, primarily due to its zero-carbon emissions, and also due to its zero-sulphur content.

This results in lower emissions of particulates and improved air quality and ensures compliance with

² IEA Ammonia Technology Roadmap October 2021

IMO 2020 and IMO 2050. Several projects are currently testing the use of ammonia as a marine fuel. The international crop nutrition company, Yara, which is one of the major ammonia producers, is planning to supply a retrofitted North Sea supply vessel with ammonia as a marine fuel by 2024. In addition, a cross-industry consortium of Japanese companies (including Mitsui and Itochu) is considering launching ammonia-fuelled commercial vessels, as well as developing ammonia supply infrastructure in Japan, to provide the shipping industry with an alternative marine fuel to reduce greenhouse gas emissions.

Ammonia in power generation:

Ammonia can also be burned directly in gas turbines in a mixture with natural gas or hydrogen. Several companies are developing engines and turbines which can use ammonia as a feedstock. For instance, Mitsubishi is developing a gas turbine which can directly take ammonia as feedstock. The ammonia is thermally

cracked to produce hydrogen, nitrogen and trace amounts of ammonia, and it is used in the gas turbine as fuel. In late 2021, Japan announced its plan to repower its electrical generation infrastructure away from coal, natural gas and nuclear to primarily ammonia-powered by 2050.

Although projected ammonia demand growth for the next 20 years ranges from 1.5% (as projected by international publication Green Markets) up to 2.4% (Yara) annually, use of this petrochemical to carry hydrogen for fuel-cell utilisation can add hundreds of millions of tons of additional demand.

It is to be noted, however, that combustion of ammonia does lead to emissions of nitrous oxide, the abatement of which will likely add further costs.

LOW-CARBON METHANOL

Like ammonia, methanol has great potential to revolutionise many different industries.



METHANOL CAN BE BLENDED DIRECTLY INTO GASOLINE OR USED AS A PURE FUEL

Methanol serves the chemical industry as a base material for a broad range of products. It is used in the manufacture of polymer fibres for the textile industry, plastics for packaging, glues, adsorbents/diapers, paints, adhesives and solvents. It also serves as a fuel or fuel additive.

In 2020, with global methanol demand at 87.7 million tonnes, 49% of this demand was channelled into GDP-driven products, with 33% of demand directed to fuel applications.³ GDP-driven products (formaldehyde, acetic acid, solvents etc.) have been the core of industry demand and are connected with the housing, automotive and appliance industries. Methanol is used as a fuel substitute or fuel enhancer in the form of methyl tertiary butyl ether, biodiesel (as a blend component into

³ Argus Analytics 2021.

diesel fuels) and dimethyl ether (as an LPG blend stock). Additionally, it can be blended directly into gasoline or used as a pure fuel. Methanol is also seeing growth as a boiler fuel and in industrial cooking stove applications.

Future prospects

With further diversification in the applications of ammonia and methanol as energy carriers, energy storage mediums, and maritime fuels, drastic market growth for both commodities is expected in the coming years.

In this regard, global producers in the petrochemical industry are already embarking upon low-carbon projects which include blue and green ammonia and methanol projects. CF Industries announced a \$100 million investment to make 20,000

short tons of green ammonia at its Donaldsonville Nitrogen Complex. Yara has almost 100,000 metric tons of pilot projects set to start by 2025 and is developing plans for a further 500,000 metric tons.⁴

The NGC Group has also recognised the opportunities to be derived in this commercial space and has a pipeline of green agenda initiatives. These include a Memorandum of Understanding with Kenesjay Green Limited and an IDB Study to understand the economic parameters of producing green hydrogen locally. Such initiatives will aid in the creation of a sustainable clean energy economy for Trinidad and Tobago. ■

⁴ Bloomberg Intelligence: Ammonia Producers face new kind of green opportunity. June 02 2021.

Beyond 315

**Building on NGC's
Reforestation
Programme**



Although forests are explicitly tied to one of the UN SDGs, these ecosystems can directly and indirectly support the achievement of other sustainability targets associated with health, food security and economic diversification.

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, 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

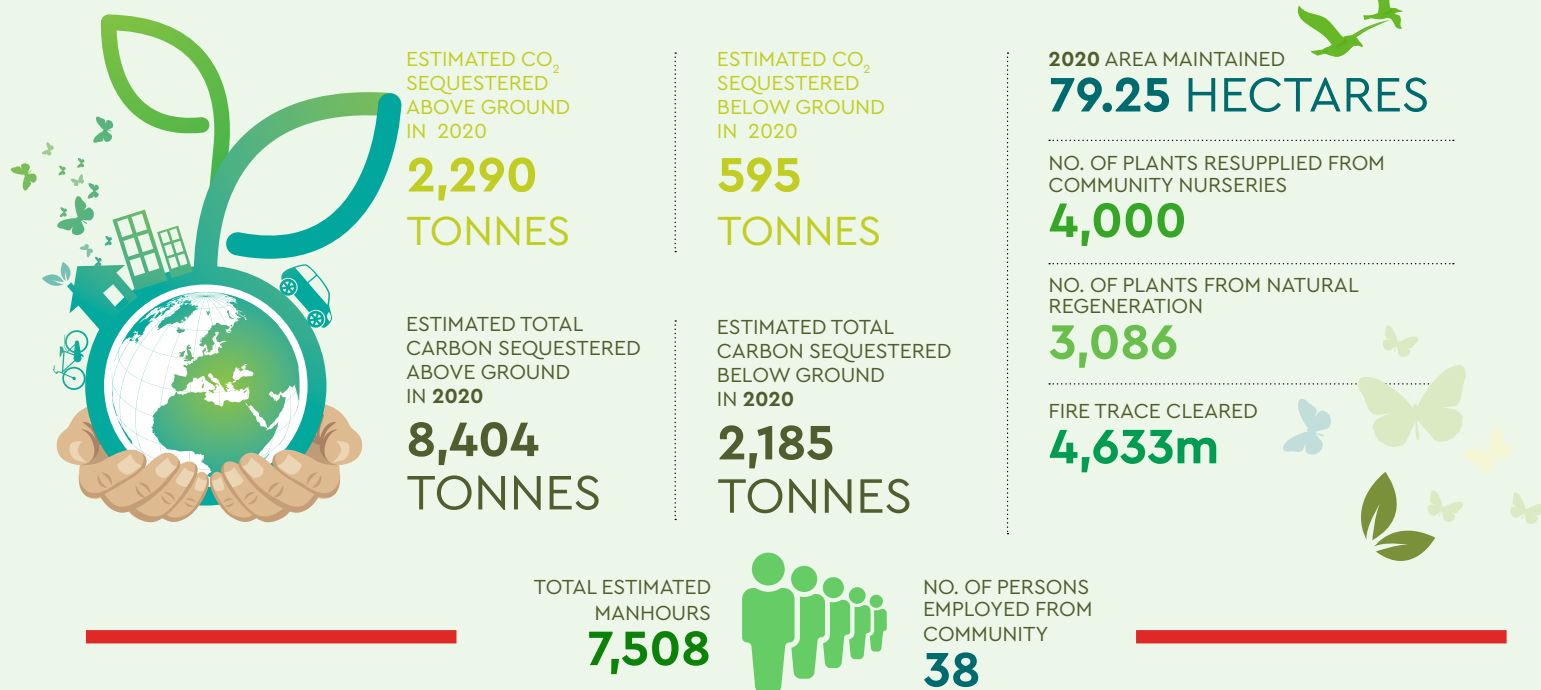
Gas Company of Trinidad and Tobago Limited (NGC) is today looking to leverage that versatility of forests to support sustainability more holistically, through an extension of its project into a broader programme called 'Beyond 315'.

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 (See Figure 1).

SUMMARY OF NGC REFORESTATION PROGRAMME OUTCOMES (NGC SUSTAINABILITY REPORT 2021)





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, where traditional agricultural practices often compromise both.

¹ <https://www.usda.gov/topics/forestry/agroforestry#:~:text=Agroforestry%20is%20the%20intentional%20integration,around%20the%20world%20for%20centuries.>



AGROFORESTRY IS THE INTENTIONAL INTEGRATION OF TREES AND SHRUBS INTO FARMING SYSTEMS

Importantly, agroforestry helps build the resilience of agricultural production and thereby contributes to food security. This is a major concern in modern society, especially given recent international developments.

On the heels of the COVID-19 pandemic which disrupted supply chains, the ongoing war between Ukraine and Russia is again roiling global markets. Broken supply chains, interrupted agricultural cycles and surging prices could soon precipitate food insecurity in import-dependent countries. Moreover, the convergence of this evolving conflict with rapidly devolving climate stability makes the outlook for food security even more precarious. Agroforestry systems can augment local food production and enhance food security in places like Trinidad and Tobago, where food import bills are chronically high.

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.

The impact on sustainability

While it is easy enough to conceptualise a project of this kind, there needs to be sufficient evidence of its value to justify investment in moving it off the page. Accordingly, NGC has sought to demonstrate how

the project can concretely support sustainable development.

At the COP26 climate conference, 141 world leaders made a pledge to halt and reverse forest loss and land degradation by 2030, in recognition of the centrality of forests, biodiversity and sustainable land use to the achievement of the UN SDGs. NGC's ambitions under the 'Beyond 315' project echo this commitment and will support its fulfilment.

Going deeper, NGC has mapped the potential linkages between 'Beyond 315' and the SDGs at a more granular level. The tables below and on page 19 outline these linkages.



Zero hunger

Targets Applicable to Beyond 315

TARGET 2.3

By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

Linkage to Beyond 315

Opportunity to promote agroforestry to build resilience of local farmers and boost local food production.



Good health and well-being

Targets Applicable to Beyond 315

TARGET 3.9

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Linkage to Beyond 315

Expanding reforestation into peri-urban areas can help improve air quality.

Green spaces can help with overall human health and well-being.



Clean water and sanitation

Targets Applicable to Beyond 315

TARGET 6.6

By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

Linkage to Beyond 315

Restoring tree cover can help improve watersheds and reduce soil erosion and sedimentation of surface water sources.



Sustainable cities and communities

Targets Applicable to Beyond 315


TARGET 11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Linkage to Beyond 315

Expanding reforestation into peri-urban areas can help improve air quality.

Green spaces can help with overall human health and well-being.



Climate action

Targets Applicable to Beyond 315

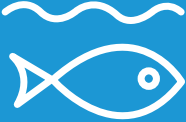
TARGET 13.1
Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

TARGET 13.2
Integrate climate change measures into national policies, strategies and planning.

Linkage to Beyond 315

Incorporating agroforestry can help with climate change adaptation and building resilience of food systems.

Supports achievement of Paris Agreement Nationally Determined Contributions (NDCs) through carbon sequestration.




Life below water

Targets Applicable to Beyond 315

TARGET 14.1
By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

Linkage to Beyond 315

Incorporation of agroforestry techniques in agriculture can help mitigate environmentally detrimental phosphorus and nitrogen flows from use of fertilisers.



Life on land

Targets Applicable to Beyond 315

TARGET 15.1
By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.


TARGET 15.2
By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

TARGET 15.3
By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

TARGET 15.4
By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

Linkage to Beyond 315

All these targets relate directly to potential benefits of reforestation activities.



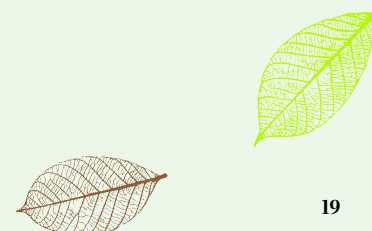
Project next steps

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. ■





Thinking Future

PPGPL Acquires LPG Terminal in Texas







PPGPL'S NEWLY ACQUIRED NGL RAIL AND TRUCK EXPORT TERMINAL IN HULL, TEXAS

Phoenix Park Gas Processors Limited (PPGPL/Phoenix Park) continues its drive to expand its business along the natural gas liquids (NGL) value chain. Following its first international acquisition in February 2020, when it bought the NGL marketing business of Twin Eagle in Houston Texas, the company has been focused on identifying and developing additional opportunities which are aligned with its approved growth strategy.

In January 2022, the company concluded its second international acquisition by purchasing an NGL rail and truck export terminal at Hull, Texas from Canadian midstream company, Keyera Inc. This is the first international physical asset purchased by PPGPL through its wholly owned US-based subsidiary, Phoenix Park Energy Marketing LLC (PPEM).

A strategic new asset

The Phoenix Park Hull Terminal, as it is now named following the acquisition, is an Exxon legacy asset which was purchased and upgraded by Keyera in 2012. At that time, and even up to 2020 when the first acquisition was closed, Canada was in a surplus position and NGLs were exported competitively into Northern

Mexico via rail. Keyera, one of the largest Canadian midstream players, expanded its presence in the US by its acquisition of the Hull terminal to support its NGL export business.

Fast forward to 2021 - several indigenous Canadian projects which require NGL as feedstock, and marine export options from Western Canada into emerging lucrative markets in Asia, have created competition for the Canadian NGL barrel. PPEM now has the opportunity to diversify its supply sources to other US-based suppliers.

Since the first acquisition, PPEM has been a significant user of the Hull terminal from Keyera. The terminal asset was therefore a very good fit for the company's core business operations. Its acquisition served to confirm PPEM's position in the market and enhance its competitiveness and sustainability in the foreseeable future. The terminal acquisition includes 40 acres of plant site and an additional 360 acres of vacant land. The site also includes access to a US Class 1 railroad, Union Pacific. There are significant opportunities to expand the terminal and diversify both the portfolio of suppliers and customers which

only point to further growth of the US business of PPGPL. These are projects which are aligned with the corporate strategy and are already under development.

Realising the vision

As PPGPL progresses its international agenda, it is interesting to reflect on the evolution of the efforts and to recognise the transformation which is taking place as the growth agenda is implemented. The company embarked on a dedicated effort in 2019 by engaging a consultant to identify, screen and analyse opportunities in the US. This effort led to the first acquisition, through which the company acquired a working team of senior marketing professionals in the US. The process of direct scanning of the market for additional opportunities was a priority for the organisation. Arising from the scanning and communication with direct networks, the Hull acquisition was soon identified.

The initial valuation and due diligence activities were executed without a buy-side advisor. Instead, this role was provided in-house, with the formation of an internal Due Diligence Team with the required



skills needed for financial validation and technical evaluation. The team comprised Engineering, Legal, Business Development, Operations and Commercial departments. The critical role played by the PPGPL Board must be recognised in the completion of this phase, as without their agreement and approval, PPGPL could not have completed this second deal. Led by chairman Conrad Enill, the board scrutinised the company's evaluation of this potential purchase to ensure that its recommendation was sound and thoroughly assessed.

Upon completion of the due diligence phase, an Integration Team was established to handle all aspects of integration including business continuity and daily operations. Many of the members who represented a cross section of disciplines worked on the first acquisition in 2020 and therefore had freshly honed and relevant skills to contribute. The team developed a comprehensive integration plan that is currently being implemented as the integration process continues.

The process of closing the acquisition as well as the ongoing integration and operations post-closing has created further opportunities for

development of talent throughout PPGPL. Across the organisation, there are new processes and procedures being developed to fully incorporate the US-based employees into the company's ongoing activities.

Benefits to country

As a state-controlled entity, PPGPL's recent acquisition presents significant benefits to our country on a wider scale, starting with increasing our opportunity to earn valuable foreign exchange as well as creating prospects for leveraging our expertise on an international scale. Trinidad and Tobago is a well established player in the natural gas business and over the years has attracted foreign investment from across the world. This is our first foray in equity participation in

the midstream sector across North America from origination of product in Canada and the US to provide a value-adding service to customers in Northern Mexico.

These achievements have boosted PPGPL's credibility in the international arena and positioned the company quite positively in the US NGL export business. As the company steadfastly pursues its growth agenda, it is carefully exploring a few other opportunities.

According to Alvin Dookie, vice president, Business Development: "Our employees have demonstrated that they are committed and competent to deliver the company's growth objectives. Once we maintain our focus and continue to receive the support of our Board and the Cabinet, our future looks bright." ■





Workplace Diversity and Inclusion as a Sustainability Imperative







Thinking Future

Riddle: A boy and his father are involved in a car accident in which the father dies. The boy is taken to the hospital where he is rushed into the operating theatre. Upon viewing the boy, the surgeon exclaims, "I can't operate on this boy; he is my son!". Who is the surgeon?

If you struggled to answer this question and did not consider that the surgeon could be the boy's mother, you are not alone.

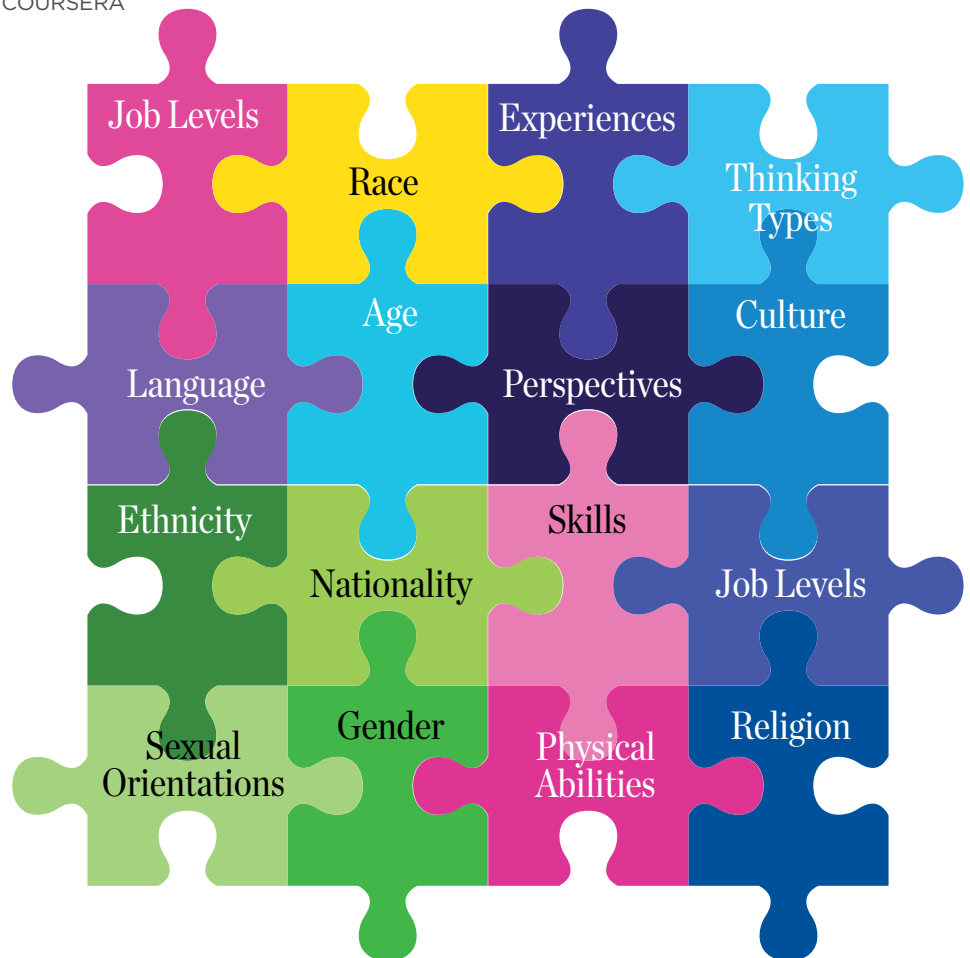
In a study conducted by researchers Mikaela Wapman and Deborah Belle at Boston University in 2014, 86% of the study participants, including several self-described feminists, overlooked the possibility that the surgeon could be a woman.

Why was it so difficult to consider that the surgeon was a woman?

The answer to this second question lies in the psychological phenomena known as Schemas. Schemas are generalisations used to simplify and explain complexity around us. Schemas do not necessarily reflect our personal values but are deeply rooted ways of thinking, usually ingrained from childhood.

They perpetuate the existence of stereotypes related to identities such as gender, race, ethnicity, class, nationality, physical disabilities, and sexual orientation, to name a few.

FIGURE 1: TYPES OF IDENTITIES THAT INDIVIDUALS BRING TO THE WORKPLACE
SOURCE: LEADING DIVERSE TEAMS AND ORGANISATIONS, UNIVERSITY OF MICHIGAN, COURSERA



Why do schemas matter to an organisation?

Schemas can lead to social categorisations that foster biases in expectations and evaluations and eventually lead to overt behaviours towards groups or individuals deemed to be outside of the group norms. In organisations with a high degree of homogeneity or predominance of one social group, social categorisations and the formation of 'in-groups' can lead to one group attaining positive social

norms, while others are deemed to be outsiders and are negatively stigmatised.

Over time, 'out-group' individuals may develop alternative work personas to hide their true social identities to fit in. This practice can have negative psychological consequences leading to lower individual and group performance, mental health issues among out-group members, higher employee turnover, and reduced ability to attract and retain diverse talent. All of this erodes the value of a firm in the long term.

Why should businesses care about diversity and inclusion, and reducing workplace stigma?

Firms that embrace workplace diversity and inclusion stand to benefit in several ways:

1) Diversity as a source of creativity and innovation

Firms that embrace diversity view it as an important ingredient for building a corporate culture that encourages innovation and high performance. Scott Page, a professor at the Ross School of Business at the University of Michigan describes this as the 'diversity bonus'. (See diagram).

2) Diversity helps improve financial performance

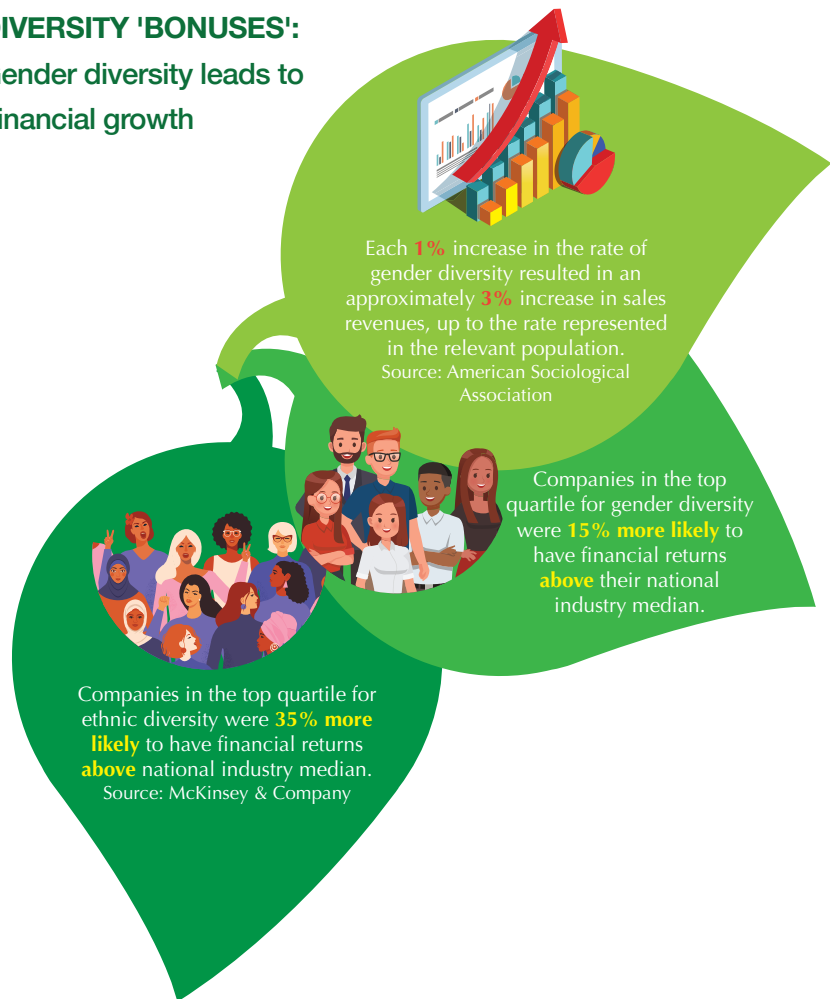
In a global study of more than 1,000 companies in 15 countries, McKinsey & Company found that firms in the top quartile of gender diversity were 15% more likely to have financial returns above their national industry median. It also found that companies in the top quartile for ethnic diversity were 35% more likely to have financial returns above the national industry median.

3) Diverse and inclusive organisations are better at attracting and retaining talent

Companies with higher levels of gender diversity and accompanying policies and practices are linked to lower levels of employee turnover, especially among women. Women are more likely to express interest in working for an organisation when it is perceived that women are treated equally and are highly represented in top management positions.

Organisations with strong "diversity climates" stand to benefit from improved job satisfaction, stronger employee commitment and lower employee absenteeism.

DIVERSITY 'BONUSES': Gender diversity leads to financial growth



4) Improved brand, reputation, and governance

According to the International Labour Organisation (2019), firms with inclusive business cultures and practices are 57.8% more likely to improve their reputations.

Additionally, firms with mixed-gender boards have been found to have fewer instances of fraud, and are associated with effective risk management, and better levels of engagement among board members resulting in improved decision-making.

Where to begin with diversity and inclusion?

Here are some tips to get started on a workplace diversity and inclusion journey:

1) Make diversity and inclusion part of leadership conversations

Making diversity and inclusion part of leadership conversations is a good place to start. Leaders should use data on a firm's diversity performance to broach the subject. Creating safe spaces (sometime anonymous) for staff to share their experiences is important. This can provide a gauge for leadership to assess the extent of its diversity and inclusion challenge.



Thinking Future



2) Review hiring and recruitment policies and procedures

According to Toni Harrison, Managing Partner and President of multicultural PR & marketing agency TEN35:

“We cannot unlearn implicit bias immediately, but we can do a better job with how we assess applications, perhaps even moving towards anonymous applications and gauging interest solely on a person’s resume and supplemental materials before learning their name.”

In the absence of diversity and inclusion laws and regulations, a firm might also consider adopting voluntary diversity and inclusion quotas in its recruitment to improve areas it may deem deficient.

3) Establish mentorship programmes to grow diversity

Mentorship provides an opportunity for organisations to grow diversity. Diverse mentors and mentees often report that the mentorship experience helps break down barriers between social groups and generations.

4) Include diversity and inclusion in training and development

According to Kia Roberts, Founder and Principal of Triangle Investigations: “A key step for improving diversity and inclusion training is to recognise that generalised, one-size-fits all solutions for diversity and inclusion training are highly ineffective.” Instead, Roberts advocates for identifying trending diversity and inclusion concerns within the workplace, and tailoring the training so that it addresses issues in an engaging and informative way.

Bringing it all together

In an age of sustainable development, in which business is expected to be more open, honest, and transparent about its impacts on people and the environment, diversity and inclusion are increasingly becoming an area of key stakeholder concern.

Understanding and acknowledging underlying psychological processes that drive social schemas and biases among individuals and within firms is a key first step to crafting meaningful change.

Implementing policies and practices to improve diversity and inclusion can help firms recruit and retain talent, improve collaboration, drive results in complex problem solving, improve board governance, and enhance the brand and reputation of the firm. ■



Thinking Future



Cutting Paths for Tassa - NGC Trinidad and Tobago Sweet Tassa to Launch Manual for Tassa Drumming





Dr. Christopher Ballengee: Ethnomusicologist and Project Consultant

Miss Lenora Kumar: Lead Cutter in the NGC Trinidad & Tobago Sweet Tassa All-Female Band

Mr. Ustad Lenny Kumar: Tassa Drummer Extraordinaire, Leader and Manager of NGC Trinidad & Tobago Sweet Tassa and Director of the NGC Trinidad & Tobago Sweet Tassa Academy

Mrs. Lennita Kumar-Mathura: Leader of the NGC Trinidad & Tobago Sweet Tassa All-Female Band, and Assistant Manager of NGC Trinidad & Tobago Sweet Tassa.

With its distinctive timbre and almost palpable beats, tassa music is an iconic feature of weddings and festive occasions in Trinidad and Tobago.

This percussive genre, descended from East Indian musical tradition, is today an integral part of our country's cultural identity.

Although it is a staple form of entertainment with a healthy number of groups currently practising and innovating the artform, there needs to be a deliberate effort to ensure tassa drumming endures into the future. This is because students of tassa are generally taught informally by practical demonstration or learn to play by ear. This manner of instruction requires a seasoned player to directly share his or her knowledge – at present, tassa drumming cannot be studied independently from a textbook as can be done with other instruments.

Moreover, since the pieces of tassa music or 'hands' are passed along and kept alive through oral instruction, there is a risk that many traditional compositions could get lost if students of the artform do not practise and pass them along in turn. Concerned by this risk of cultural loss, one band has taken on the challenge of formalising tassa instruction. The NGC Trinidad and Tobago Sweet Tassa band – already founders of a successful tassa drumming training academy – is preparing to launch a first-of-its-kind method book to teach the art of tassa drumming.

The Sweet Tassa story

As an ardent supporter and patron of the arts and culture, The National Gas Company of Trinidad and Tobago



DRUMMING TECHNIQUES DEMONSTRATED IN THE MANUAL

Limited (NGC) has been investing in building the tassa industry for several years.

NGC began sponsoring the Sweet Tassa group based in Mt. Stewart Village, Princes Town in 2014. The Sweet Tassa brand was born in 2002 when Mr. Lenny Kumar decided to branch out from his father's tassa group to form his own. Two years later, when his daughters and other girls in the area demonstrated an interest in playing tassa, he formed an all-female section in his band – the first all-female tassa group in the country. Today, the band – which also has an all-male ensemble and a junior band – has grown into a successful business which is taking tassa in unprecedented directions.

The band's list of accolades includes awards from local and international institutions. In 2010 the all-male band won 12 gold medals and in 2016, the all-female band walked away with 12 silver medals after participating in the prestigious World Championships of the Performing Arts (WCOPA) competition in the USA. Members

from different sections of the band also had opportunities to perform at events in the Caribbean, USA, India and the UK. In 2019, founder Lenny Kumar himself was invited to tour Europe during production of a documentary on tassa drumming by Dr. Christopher Ballengee, and shared his music with audiences in Sweden, Denmark, Poland, Italy and Germany.

One of the innovations that the band introduced with NGC's support is a Tassa Academy, to teach the artform to others. Such was the demand that 200 students enrolled in the inaugural programme in 2017. The group has since gone on to take their classes online and show no signs of stopping.

Mrs. Lennita Kumar-Mathura, Assistant Manager of the band, spoke glowingly of the group's progress. "Thus far it has been quite a memorable journey," she said. "Every year we try to do bigger and better things that no other tassa band could. We care about safeguarding our artform and the more people know about us and our teachings, the better."



It is in that spirit that the band decided to undertake a ground-breaking project to change the rules of tassa instruction and secure the future of the artform.

The Beginner's Guide to Tassa Drumming

Manager of the NGC Trinidad and Tobago Sweet Tassa group, Mr. Lenny Kumar, had a vision to create an instructional guide with notated music for beginner-level tutoring and/or independent learning of tassa drumming. Such a resource would be a first for the industry, and an important medium for preserving and sharing traditional pieces of music.

Mr. Kumar found support for this vision in an American academic Dr. Christopher Ballengee, an ethnomusicologist and associate professor of music at Anne Arundel Community College in Maryland, USA. Dr. Ballengee had nurtured a keen interest in Trinidad and Tobago music since 2003, and spent time in the country researching tassa in 2007. He was introduced to Mr. Kumar in 2009 and both have collaborated on several academic projects since then.

Dr. Ballengee's scholarly work has centered on the confluence of Indian and Caribbean creative expression arising from the experience of colonial indentureship. He has been instrumental in raising the profile of tassa music in international circles, through his dissertations and recently, his role in the production of a feature-length documentary film *Sweet Tassa: Music of the Indian Caribbean Diaspora* (2019). This film details the history, repertoire and social significance of tassa while profiling the life and work of Lenny Kumar and his family.

In the course of their collaboration, Dr. Ballengee encouraged Mr. Kumar in his desire to produce an



MR. LENNY KUMAR

instructional tassa manual. In 2019, Mr. Kumar finally completed a draft of this book, to which Dr. Ballengee contributed sections on the historical and cultural significance of tassa. He also edited the musical notation.

By way of preview, the book is divided into chapters that include:

- An overview of the origins of tassa
- The fundamentals of musical notation
- An overview of the instruments – tassa, bass and jhal
- Practice sheets for different tassa 'hands'

As sponsor of the band, NGC was proud to move this book into production, and is working together with The University of the West Indies (UWI) on accreditation of the final publication. Once completed,

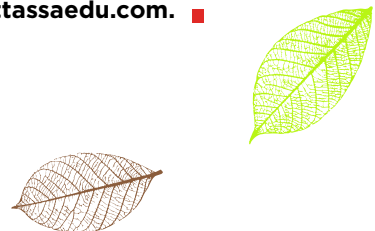
the manual will not only be a resource for local tassa enthusiasts but can be a springboard for aspiring tassa stars around the world. Notably, no such publication currently exists for this instrument. The realisation of this project will therefore be a momentous achievement, and the book itself a seminal work for building scholarship around the artform.

Mr. Kumar is thrilled to see this project so close to completion, and shared his inspiration for the book: "As a professional drummer with over 50 years of experience, continuously mastering my skills, drumming technique, and knowledge of drumming, I am proud to share what I've learnt about this art form which my forefathers brought to Trinidad and Tobago from India. My goal is to help keep it alive for future generations."

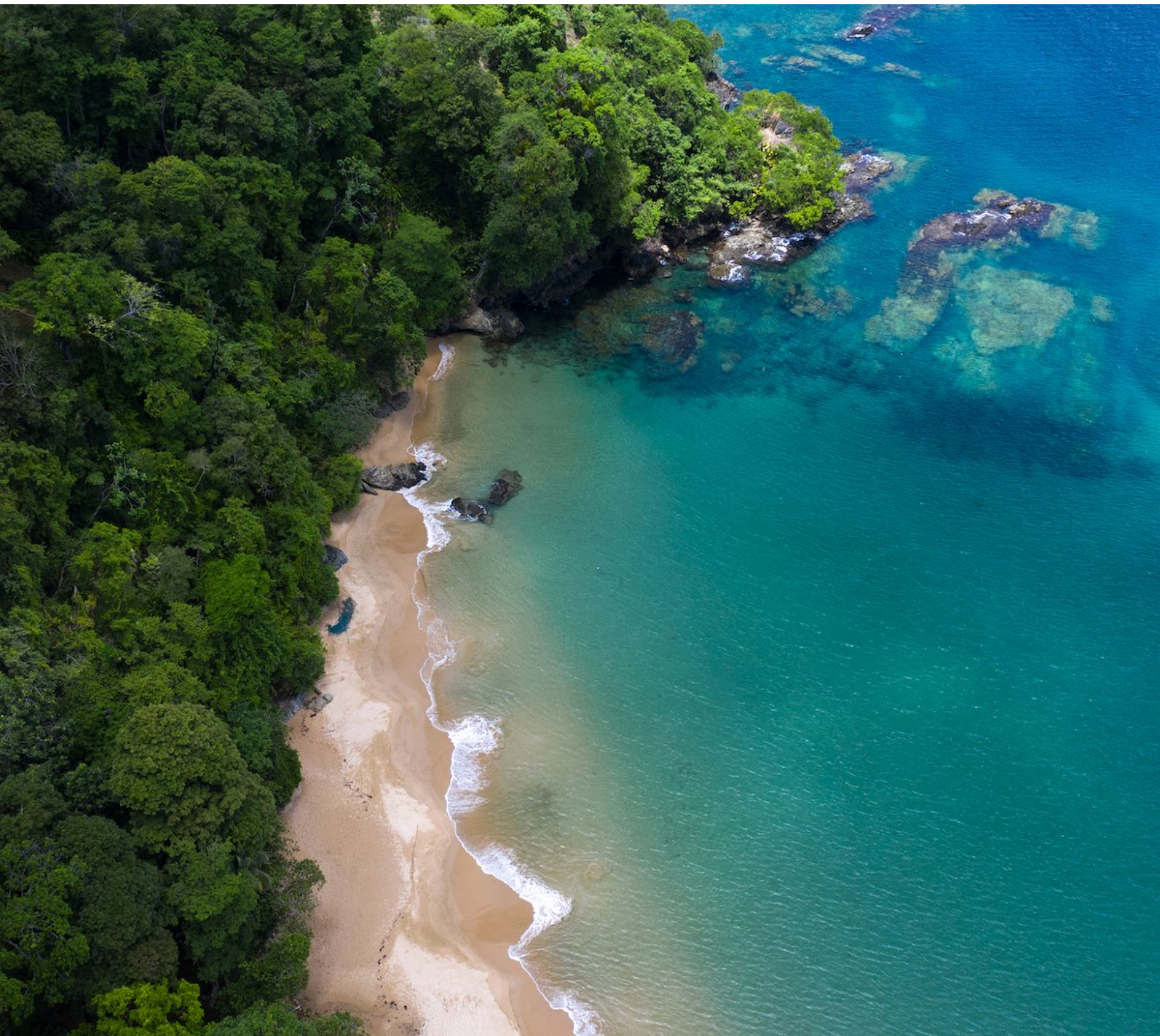
He added: "My hope is that with the support of our sponsor NGC, this publication will enable tassa drummers to elevate themselves musically and become pioneers and composers for this genre of music. I encourage drummers to keep practising and enjoy the process, and greatness will follow."

For its part, NGC is proud to stand with this group as it continues to cut paths for the industry and for Trinbagonian culture. The Company is also exceedingly proud of the group's work to bring women to the forefront of this musical genre, and its efforts to sustain tassa music as an emblem of East Indian heritage in Trinidad and Tobago.

Tassa fans and students of the artform can look out for the launch of this manual within the coming months. For more information and to get in touch with the NGC Trinidad and Tobago Sweet Tassa group, visit www.sweettassaedu.com. ■



**TO REFLECT ON THE BEAUTY
THAT SURROUNDS US HERE IN
TRINIDAD AND TOBAGO**



Serene shoreline. Photo by Logging Tape Media



THE NGC GROUP OF COMPANIES
