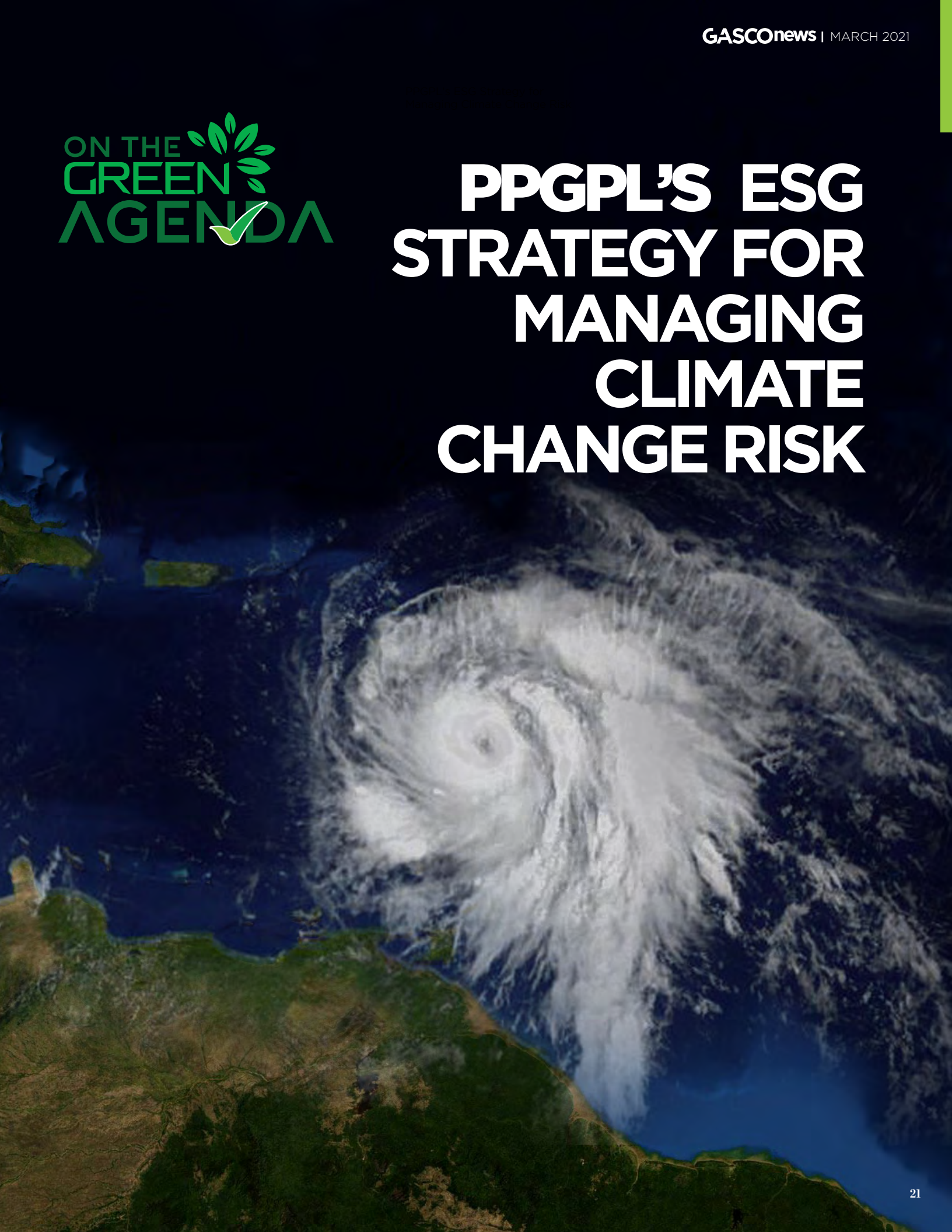




PPGPL'S ESG STRATEGY FOR MANAGING CLIMATE CHANGE RISK





There are echoes that haunt the Caribbean region after each extreme weather-related event. Loss of life, damage to property and social displacement are painful remnants of the trail of destruction that remains. These are perils that plague the islands of the region up to today.

The echoes are a glaring reminder of the region's vulnerability. Threats of hurricanes, ocean acidification, and wildfires are representative of the long-term shifts in regional or global climate patterns. Coastal areas have come under threat. Sea level rise and warmer oceans are changing our biosphere. Plankton - the source of at least half the oxygen we breathe - is dying, with coral reefs that protect coastlines following suit. Events such as these cannot be ignored as they hinder socio-economic development and play a significant role in human displacement patterns. Consequently, economic progress is hampered, and future generations are deprived of their home and ecological heritage.

Without access to land and marine resources, the path to prosperity will become murky. Certain areas will become inaccessible to those economies that rely on it the most. Climate risk management (CRM) is therefore an important part of the conversation. It is imperative for preventing, mitigating, and adapting to extreme weather-related events.

Global warming is the long-term heating of the earth's climate system. The rise in heating has been observed since the pre-industrial period (between 1850 and 1900). It has been attributed to human activities such as fossil fuel usage, which increases heat-trapping greenhouse gas levels in the earth's atmosphere. Whilst climate can change over a period due to natural causes, the warming being linked to human activity has been identified as the main driver behind climate change.

When one considers the devastation from climate change, there appears to be a global fight for survival. In what has been termed a climate emergency, one thing becomes clear, GDP would no longer be the main measure of national prosperity. Instead, adaptation to climate change and strong resilience mechanisms would be the flagship measure of wealth. With 60% of humanity living in coastal areas, the global collective will either directly or indirectly share vulnerability to climate change.

This highlights the importance of climate risk management. Using information about present and future climate change can help with the development of practices, policies, and infrastructure to make governments, and by extension organisations more resilient to this risk.

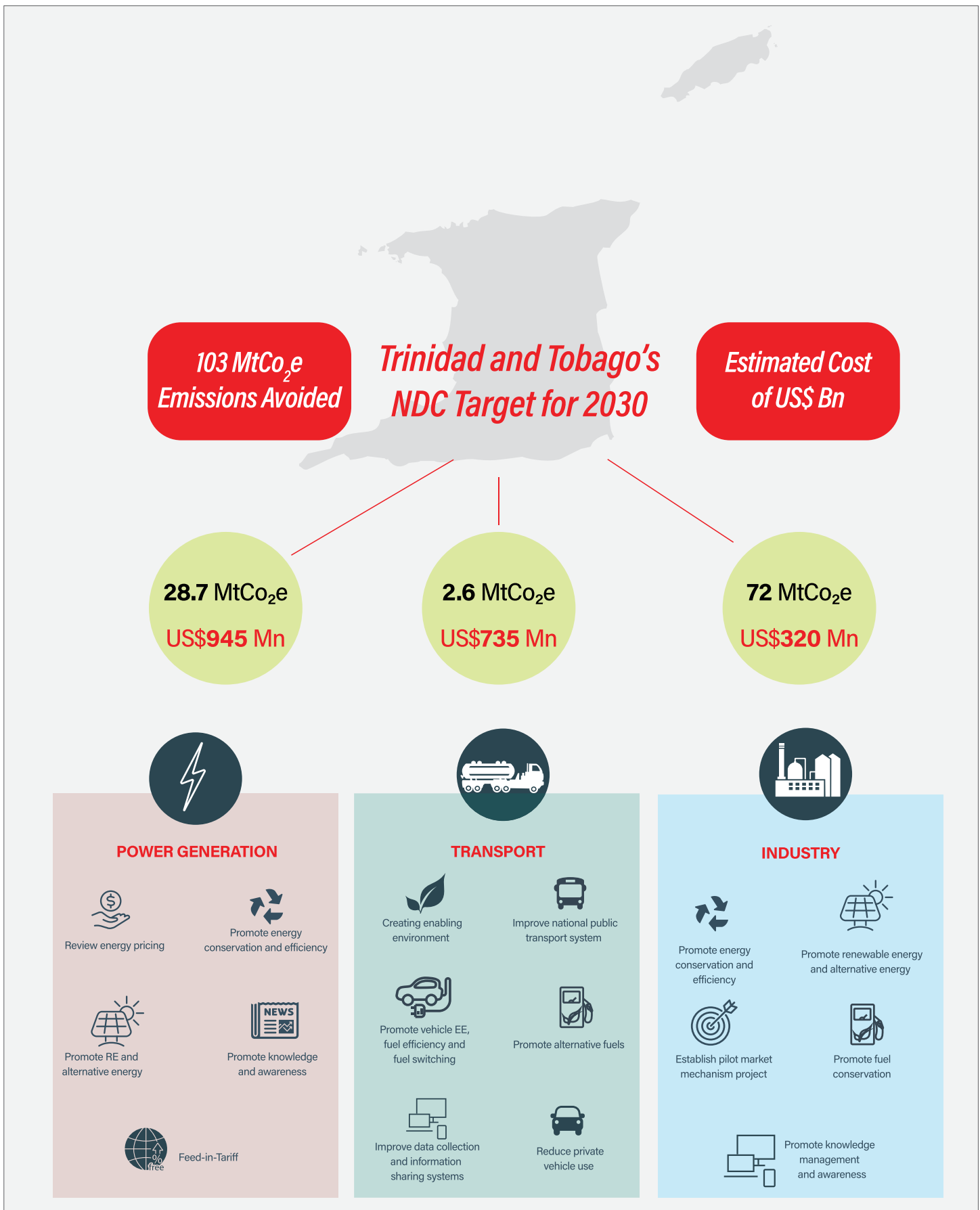
Building Resilience through Climate Risk Management

When PPGPL looks at its history and role in shaping the energy sector, it will see a common thread of safety leadership, capacity building and community development. These embody its vision of being recognised as a global leader in the development of sustainable energy-related businesses. However, as the company contemplates the impact of climate change on the region and its future, it must determine the right tactics to employ for business growth.

One thing is certain: It must remain resolute on the issue of sustainability and not pursue business growth at the expense of its community. For PPGPL, the sustainability agenda must not be at odds with profitability. In fact, the company understands that it cannot expand its asset base and support nation building, unless deliberate action is taken to preserve it. There should be no tradeoff between its vision and the stability of its natural environment.

PPGPL's external environment has been rumbling for some time. It has been portending the rapid transformation of the global energy sector. At the forefront, is the growing threat of abrupt and irreversible climate change and the influence abatement measures will have on energy usage. The Paris Climate Agreement has created a vehicle to prompt social and intergovernmental discourse on the critical actions required to address global emissions. Once at arm's length with commodity producers, consumers have become more empowered through social media. Some have even commenced litigation procedures against polluting companies. They are not only demanding social justice, but cleaner products in support of energy security. This is influencing the global energy mix.

New technologies are also changing energy production, delivery, and consumption patterns. The internet of things and digital twins are making plant operations safer and efficient. Electrified transportation, autonomous vehicles and ride sharing are also changing demand patterns through cost and fuel efficiency. Presently, the COVID-19 pandemic has not only affected societal behaviours like travelling, personal hygiene and personal space norms, but it has also caused the world to slow down and focus on tackling climate issues.





"Nothing happens until the pain of remaining the same outweighs the pain of change".

ARTHUR BURT.

These external rumblings have caused PPGPL to do some introspection. It has reinforced the company's commitment to be a leader on sustainable issues. While sustainability has always been the company's passion, we must reinforce environmental, social and governance (ESG) principles into our strategy if we want to mitigate risk, drive profitability, and ultimately create a compelling future for stakeholders. Issues of biodiversity protection, climate and preservation of natural assets are all things that we must consider in our pursuit of growth.

PPGPL's internal environment has also been making a statement. Its facilities are changing in a way that can no longer be viewed as a

series of random events. PPGPL has been observing environmental abnormalities at its facilities for some time. In 2016, the rate of shoreline erosion was noted to have increased to the extent that shoreline conditions had significantly worsened, and PPGPL's plant infrastructure was in critical danger of significant negative impact on structural integrity. This plant infrastructure included PPGPL's Dock 2 southern fence-line, its Dock 2 pipeline Right-of-Way (ROW) and ultimately, PPGPL's Dock 2 (East to West) pipeline (Lee Young & Partners Limited, 2017).

At the dock facility, localised waves and currents are driven by more generalised tides, currents, and waves in the wider Gulf of Paria.



CHANGES IN THE GULF OF PARIA ARE AFFECTING PPGPL FACILITIES

PPGPL's ESG Strategy for Managing Climate Change Risk | CONTINUED

It is the belief that the waves effecting erosion at PPGPL are abnormal "extreme condition" storm waves that have to approach the shoreline perpendicularly, thereby effecting the observed onshore-offshore erosion and transport, resulting in the observed 2.2 metres per year shoreline erosion calculated by the subject matter experts. These seemingly unrelated observations have been reviewed and have caused the staff at PPGPL to ask these questions – are these occurrences genuinely random and unrelated or do these occurrences provide evidence of the impact of climate change on our small island nation? A story is being woven as PPGPL ponders its observations, connects the dots, and maps its future. The story's theme suggests that the way we invest, manage, and maintain our assets must be reflective of our environmental context. We must also consider our responsibility to our stakeholders. With this mindset, the opportunities become glaring. Embedding ESG into our investment and project decisions grants us social licence as it illustrates the values that the company espouses with respect to sustainable and ethical management. Under the ESG umbrella, issues such as environmental preservation, institutional strength, gender, and diversity have a key role in enabling sustainable management.

When grappling with the issue of climate risk, the business cannot only be viewed in short five-year horizons. PPGPL understands that it must create the right balance between short-term and long-term priorities. This would allow it to shape its future rather than reactively trying to fit a square-pegged strategy within an externally defined round boundary. As PPGPL looks at its risk profile, it will not only be focused on the physical manifestation of climate risk on its asset integrity, it will also contemplate transition risks that are likely to occur as the company tries

to decarbonise. These are risks that may occur due to policy, regulation, litigation, adoption of alternative energy sources, and shifting consumer preferences or behaviour.

In the past, PPGPL has supported environmental initiatives under the umbrella of our corporate social responsibility and our health safety, security and environmental initiatives. These activities included coastal community interventions, children's art competitions on biodiversity and staff involvement in home gardening. One of our flagship projects was our partnership with NIHERST in 2012, to provide rainwater harvesting systems (RWHS) in water-scarce schools combined with solar energy solutions.

Whilst we are proud of these achievements, for our next phase of growth, we will use a more transformative approach. We cannot afford to flatline when climate change has been declared the world's greatest threat to economic stability. This decade has been underscored as a critical period to win this fight.

PPGPL will be championing issues that create a platform for social leadership and stakeholder stewardship. Our project and investment management principles would be influenced by these values. How we select our partners, suppliers and customers will also be informed by our renewed agenda. We are committed to supporting Trinidad and Tobago's Nationally Determined Contributions (NDC) under the Paris Agreement, so we will dig deeper, elevate our outlook, and take bold action.

We have already championed energy management within the organisation by upgrading our heating, ventilation, air conditioning and cooling systems. Upgrades include:

- Replacement of lighting
- Timer-controlled lighting operating specific areas



"Facts do not cease to exist because they are ignored."

- ALDOUS HUXLEY

- Solar Technology:
 - Perimeter lighting – beta-testing in specific/remote areas
 - Entrance barrier controls operating specific/remote areas
- Motion sensor operated extractor fans in specific washroom areas
- Thermostat management-reduce energy consumption during low occupancy periods
- Gradual replacement of old/defunct air conditioning equipment with new 'energy star' equipment
- Utilising energy saving technology such as Multistage Air Volume
- Maintaining quarterly air conditioning servicing schedules.

Notwithstanding the above, we will be embarking on the formalisation of our energy management systems by aligning to ISO 50001. In this regard, some of our future initiatives will include:

- Monitoring and quantifying gas leaks to reduce energy consumption using a leak detection camera
- Implementing fired heater optimisation to reduce fuel consumption and emissions
- Evaluating the benefits of using inert gases instead of fuel gas in storage tanks
- Retrofitting and replacing existing lighting with more efficient lighting and LED lighting
- Determining the feasibility of small-scale utility solar PV projects on the plant.

Taking bold focused action creates explosive results (John Di Lemme). PPGPL intends to do what we must. ■