

REPORTS 2021: A SUMMARY

Nature-based Solutions for climate change mitigation

What is it about? This report presents the current state of knowledge surrounding Nature-based Solutions (NbS) and the pivotal role they play in mitigating climate change, reaching net zero by 2050 and limiting warming to 1.5°C. NbS are most frequently deployed in forests, but also implemented in grasslands and croplands, peatlands, and marine ecosystems.

What is new? For NbS to succeed, they need robust governance frameworks and safeguards, as well as additional financial commitment from both public and private sectors. As the world builds back in the wake of COVID-19, NbS should form an integral part of that process.

Why is it important for the Caribbean? The Caribbean is one of the most at-risk regions of the world when it comes to climate change. High sea levels and extreme weather events have potentially devastating consequences for the coastal and low lying areas of the region. NbS provide an opportunity to use the innovative answers provided by nature to mitigate the effects of climate change.

What are current initiatives? Projects such as *OceanInvest: Harnessing the next generation of decision tools and sustainable finance mechanisms to build a nature-based blue economy in the Caribbean*, aim to use NbS to prioritise nature in the blue economy.



Economics of Peatlands Conservation, Restoration and Sustainable Management

What is it about? This report highlights the economic and environmental advantages of protecting and restoring our planet’s peatlands, an effective carbon sink. As it stands, peatlands are “undervalued and underinvested” and when they are converted, drained and cleared for commercial ends, there is a high-risk of wildfires which give way to GHG emissions. In order to reverse this damage, peatlands need to be rewetted. Peatland protection and restoration is an example of a cost-effective Nature-based Solution.

What is new? This report calls for policies and regulations that promote respect for peatlands, in addition to the abolition of subsidies that give way to the expansion of economic activities into these carbon sinks. These actions must be reinforced by investments of USD 28.3 billion for conservation and USD 11.7 billion for restoration per year from the public and private sectors. If managed more sagely, tropical peatlands alone could reduce global GHG emissions by 3%.

Why is it important to the Caribbean? Tropical peatlands are found throughout the region. In addition to carbon sequestration, they provide important ecological functions such as providing habitats and protection against extreme weather events.

From Pollution to Solution: a global assessment of marine litter and plastic pollution

What is it about? This report exposes the threat posed to humans, animals and ecosystems by marine litter and plastic pollution before putting forward some solutions and actions. Marine litter disrupts ecosystems; releases toxins and bacteria that are harmful to plants, animals, and humans; and affects carbon cycling which leads to further climate change. Coastal livelihoods are already at risk and marine litter further exacerbates these threats.

What is new? If we continue on the current trajectory, the deposition of plastic waste in marine environments will triple by 2040. Although technological advancements have allowed for more accurate monitoring of marine litter, there are several challenges related to the measurement of microplastics. Plastics are cited as one of the most problematic materials because of the high GHG emissions related to the production, use and disposal. The report ends with a level of optimism, with communities across the world coming together to reduce marine litter and a series of commitments and agreements to tackle the problem.

Why is it important to the Caribbean? The viability of our coastal economy is essential to the livelihoods of many Caribbean communities. At the same time, we still rely in many ways on single use plastic and have limited options for recycling.



What are the current initiatives?

Regional and local projects supported by UNEP aim to address our reliance on single use plastics and support responsible waste management. Such projects include the Jamaican Plastic Waste Minimisation Project, Clean Seas and Sustainable Tourism in the Caribbean, and Reducing Marine Plastics and Plastic pollution in Latin American and Caribbean cities through a circular economy approach.

Greening the Blue Report 2021

What is it about? The most recent edition of the Greening the Blue Report outlines the UN system’s environmental footprint and the steps that are being taken to reduce it. The report includes data from entities across the system and checks the progress being made on the UN’s environmental governance requirements and targets.

What is new? Because the 2021 Report is based on 2020 data, the dramatic decrease in GHG emissions, waste production and water consumption, is due in large part to the change that we underwent as a result of the COVID-19 outbreak.

Why is it important to the Caribbean? In the aftermath of COP26, we are all responsible for ensuring transparency and collective responsibility in meeting our commitments and reducing our environmental footprint.

Beating the Heat: A Sustainable Cooling Handbook for Cities

What is it about? Some cities are on such a dangerous trajectory of GHG emissions that they could experience warming of up to 4oC by 2100. Launched at COP26, this handbook builds upon 80 case studies and examples to guide city planners towards the creation of cooler urban environments. This handbook advocates for a holistic approach to planning and promotes three main steps to achieve this cooling: reduce heat at the urban scale, reduce cooling needs in buildings, and serve cooling needs in buildings efficiently.

What is new? The guide outlines various strategies that help cities and communities pave the way towards cooler urban centres because it acknowledges the different conditions and contexts across continents. The actionable guidance ends with the reminder that cooler cities will give way to “improved health and productivity, reduced power requirements, lower emissions and economic benefits.”

Why is it important to the Caribbean? As a region with a tropical climate, we rely heavily on non-environmentally friendly cooling methods that often contribute to high emissions and increased pollution.

What are the current initiatives? The Caribbean Cooling Initiative is a project launched with the UNEP’s United for Efficiency programme, and works to showcase the benefits of a transition to energy-efficient and climate friendly air conditioners and refrigerators.

Adaptation Gap Report 2021

What is it about? The latest Adaptation Gap Report takes stock of the world’s progress in adapting to climate change and presents stark evidence that current adaptation finance and efforts fall far short of what is necessary to reach the 1.5°C target.

What is new? Some developing countries need five to ten times more adaptation finance than what is publicly available at present, giving way to an ever-increasing adaptation finance gap. Building back from COVID-19 and related recovery funds could be used to close this gap. Public finance must come from increased direct investment and adaptation must be made more achievable for the private sector. As it stands, only one quarter of countries have robust monitoring and evaluation mechanisms in place, which are essential if they want to keep progressing. Given the current state of the climate emergency as reported by the IPCC in August 2021, adaption plans need to be suitable for more intense risks and scenarios.

Why is it important to the Caribbean? The Caribbean is, and will continue to be, particularly impacted by the myriad effects of climate change. It is therefore vital that we prioritise adaptation efforts now to save lives and livelihoods across the region. Financing adaptation is a frequently cited problem for Small Island Developing States, including in the Caribbean

What are the current initiatives? The CityAdapt project, which strives to increase the capacity of governments and communities to adapt to climate change by incorporating ecosystem-based management into urban planning. Ecosystems, and their full range of benefits, are promoted as a means of reducing the negative impacts of climate change.

Production Gap Report 2021

What is it about? The report presents the evidence that governments' planned fossil fuel production far exceeds the targets set out by the Paris Agreement, and that even with greater ambitions and commitments, global warming will exceed 1.5°C.

What is new? Little progress has been made in closing the production gap since the first edition of the report in 2019. Governments continue to adopt policies which promote oil, coal and gas production. Although international public financing for the production of fossil fuels is decreasing, countries have allocated more funds to fossil fuels than to clean energy since the outbreak of COVID-19. In order to close the gap and align production with the limits set out by the Paris Agreement, there needs to be stronger support, clearer information and more ambitious policies for governments and companies.

Why is it important for the Caribbean? The Caribbean remains reliant on fossil fuels such as oil and diesel for its energy needs. While most of these are imported, states such as Trinidad and Tobago and Guyana are producers of nonrenewable energy sources such as oil. Conditions in the Caribbean have great potential for the production of cleaner renewable energy like solar and hydro-electricity.

What are the current initiatives? *The recently completed Promoting Energy Efficiency and Renewable Energy in Buildings established the Institute for Advanced Research in Renewable Energy in the University of the West Indies in Kingston Jamaica. The project Advancing with a Regional Approach to E-Mobility in the Caribbean, also works to reduce the dependency of the transport sector on fossil fuels.*



Emissions Gap Report 2021

What is it about? The most recent edition of the Emissions Gap Report, published just prior to COP26, takes stock of where GHG emissions are headed, where they will be by 2030, and where they need to be to avoid the worst impacts of climate change.

What is new? This report presents stark evidence that current climate pledges and countries' NDCs are insufficient, and they are paving the way towards a 2.7°C temperature rise this century. The report makes the case for net-zero pledges but notes their vagaries and absence from NDCs. Great efforts must be made early in this decade if we are to fulfil the 2030 Agenda. This edition hones in on methane emissions, their contribution to warming, and manners by which to reduce them. It also refers to carbon markets and their potential to reduce emissions, but calls for clear rules and monitoring frameworks. Like many recent reports, this laments the missed opportunities to build back better in the wake of COVID-19.

Why is it important for the Caribbean?

Although the Caribbean makes up a small percentage of global emissions, several countries have committed to net zero emission targets in the coming years.

What are the current initiatives?

Stabilizing GHG Emission from Road Transport through Doubling of Global Vehicle Fuel Economy: Regional Implementation of the Global Fuel Efficiency Initiative (GFEI) is aiming to address the emissions arising from the transport sector in Jamaica

An Eye on Methane: International Methane Emissions Observatory 2021 Report

What is it about? This report focuses on emissions from the fossil fuel sector and puts forward a theory of change which is based on integrated data but conditional on reporting and regulation. Dramatically reducing methane emissions is essential if we are to realize the net zero ambition and halt climate warming.

What is new? Action must be led by plant managers in the industry, and targets and transparency are fundamental for a successful reduction in methane emissions. The report outlines the Oil and Gas Methane Partnership 2.0, the relevant technical standards, and updates from over 60 companies.

Why is it important to the Caribbean? The reliance of the Caribbean on fossil fuel energy and the lack of opportunity and incentives to change to cleaner sources of energy is a missed opportunity for many areas of the region.

The UNEP Caribbean Sub-Regional Office, located in Kingston, Jamaica, works in over 23 countries, territories and dependencies in the region, supporting the management of more than 70 global, regional and national projects in several Caribbean priority areas. To find out more about us please see:

<https://www.unep.org/regions/latin-america-and-caribbean/our-offices/caribbean-sub-regional-office>