

Annual Technical Report

Ministry of Sustainable Development, Climate Change and Disaster Risk Management

March, 2022



2021

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Message from the Minister



I am most pleased to present to you the Ministry of Sustainable Development, Climate Change and Disaster Risk Management's Annual Technical Report for the period 2021-2022. With the Ministry's renewed vision and ambitions, we were able to achieve significant milestones that further established Belize as a leader in the environmental sector. This year saw excellent high-level participation at the UNFCCC's 26th Conference of the Parties (COP26) in Glasgow, Scotland, and the United Nations Environment Assembly (UNEA 5.2) and the United Nations Environment Programme 50th Anniversary (UNEP @50) in Nairobi, Kenya. At COP26, Belize was nominated for a seat on the board of the Adaptation Fund, secured a seat on the Adaptation Committee of the UNFCCC, and led negotiations on behalf of Small Island States empowering the country's ability to defend and negotiate its position in key areas of transparency, adaptation, loss and damage, and

finance. Through its commitment to effective and impactful action, the Ministry continues to prioritize its human resource through capacity building opportunities, provision of necessary equipment, and improved facilities for staff.

Notwithstanding these achievements, there are several factors limiting the Ministry's ability to scale up its efforts with the most impactful being that of a limited budget and the inadequate staffing of key units which significantly restrict contributions to the Ministry and government on a whole. As it stands, 72% of the Ministry's approved budget for 2021/2022 is allocated to recurrent expenditure – administration, salaries, and emoluments – leaving on 28% or \$6,000,000 to carry out its programmatic work. As a result, the Ministry has been heavily dependent on external funding to ensure the effective execution of its duties.

As we continue to deliver on the commitments of PlanBelize and our contributions to environmental, regulatory and fiscal reforms for continued recovery of prosperity from the pandemic and beyond, there is need for stronger financial commitment to scale up efforts in all activities across the Ministry and build upon the current successes for the upcoming 2022/2023 fiscal year.

Hon. Orlando Habet

Minister of Sustainable Development,

Climate Change & Disaster Risk Management.

List of Abbreviations

BEL - Belize Electricity Limited

BIITT – Biodiversity Impact Investment Tracking Tool

BIOFIN – Biodiversity Finance Initiative

CARSI – Central America Regional Security Initiative

CBD - Convention of Biological Diversity

CCCCC – Caribbean Community Climate Change Center

CCRIF – Caribbean Catastrophic Risk Insurance Facility

CEO – Chief Executive Officer

CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMF – Co-management Framework

CMU – Compliance Monitoring Unit

DOE – Department of the Environment

DAVCO - District Association of Village Councils

EIA - Environmental Impact Assessment

EMS – Emergency Medical Services

EMR – Emergency Medical Response

EMT – Emergency Medical Technician

EOC - Emergency Operation Center

ERCAP – Energy Resilience for Climate Adaptation Project

FD – Forest Department

GEB - Global Environmental Benefits

GEF – Global Environmental Facility

GHGI – Green House Gas Intensity

GIS - Geographic Information System

GoB – Government of Belize

HF – High Frequency

IOM – International Organization for Migration

ICAT - Initiative for Climate Action Transparency

LiD - Lives in Dignity

MED – Ministry of Economic Development

M&E – Monitoring and Evaluation

MIDH - Ministry of Infrastructure, Development and Housing

MoU - Memorandum of Understanding

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MRV - Measuring, Reporting and Verification

MSDCCDRM – Ministry of Sustainable Development, Climate Change and Disaster Risk Management

NAMA – National Appropriate Mitigation Action

NAPA – National Adaptation Programme of Action

NBIO – National Biodiversity Office

NCCO – National Climate Change Office

NDC – Nationally Determined Contributions

NEMO – National Emergency Management Organization

NFS – National Fire Service

NIP - National Implementation Plan

NLRS – National Landscape Restoration Strategy

NMS – National Meteorological Service

NPAS – National Protected Areas System

PA – Protected Area

PBMTDS - Plan Belize Medium Term Development Strategy

POPs - Persistent Organic Pollutants

UPOPs - Unintentionally Produced Persistent Organic Pollutants

PPPU – Policy Project and Planning Unit

PUP - People’s United Party

REDD – Reducing Emissions from deforestation and forest degradation

RTA – Road Traffic Accident

SD – Sustainable Development

SDG – Sustainable Development Goals

SDU – Sustainable Development Unit

SIB – Statistical Institute of Belize

SOP – Standard Operating Procedure

SMART – Spatial Monitoring and Reporting Tool

UNDP – United Nations Development Programme

VHF – Very High Frequency

UNEA - United Nations Environment Assembly

UNEP - United Nations Environment Programme

UNFCCC – United Nations Framework Convention on Climate Change

UNICEF - United Nations Children Fund

USAID - United States Agency for International Development

Executive Summary:

2021-2022 was a very busy but successful year for the Ministry of Sustainable Development, Climate Change, and Disaster Risk Management. The start of the year saw the Ministry focusing on supporting continued recovery for Hurricanes Eta and Lota and carrying out adequate hazard and vulnerability maps to be adequately prepared for future disasters. Building capacity through training, resources acquisition, and employment of new technologies were key features of this fiscal year.

This Annual Report 2021 - 2022 attempts to provide a snapshot of programmatic goals, achievements, challenges, and future work of the Ministry's three sub-portfolios and nine departments. The Report first provide an overview of the Ministry, outlining its Mission, Core Principles and Programmatic Priorities. Next, we outline the Mission, Programmatic Priorities, Ongoing Projects and Lessons Learnt of each Department under the three overarching programmatic portfolios of the Ministry primarily outlining core focus areas, ongoing programs and projects, beneficiaries, budgets, and lessons learned over the last year. Finally, the Report provides a quick overview of the Staffing and Budgetary allocations with some important recommendations on the way forward to aid the Ministry via its departments to continue to meet its mandate.

While there were incremental achievements in the 2021 - 2022 fiscal year, there is a lot more work to be done in the 2022- 2023 fiscal year. This includes, strengthening the legislative framework that fosters adequate economic recovery founded on the principles of long-term sustainable development, building capacity of the staff to improve monitoring and enforcement, strengthened partnerships with and inclusion of the private sector, academia, and local communities in biodiversity management, climate change mitigation and adaptation, and comprehensive disaster risk reduction.

1. Introduction:

The Ministry of Sustainable Development, Climate Change and Disaster Risk Management (MSDCCDRM) realized some key accomplishments over the 2021/2022 period. These feats strengthen the Ministry's mandate and contribute to the environmental status within Belize. In the last fiscal year, the Ministry embraced key principles of PlanBelize that promotes a development pathway that addressed poverty reduction and social protection and *"the pursuit of development in a measured and sustainable way that respects and preserves our environment"*.

In embracing these principles, the Ministry operationalized these principles through some core strategic actions i.e. scale up international recognition of Belize's leadership role in environmental protection and conservation; and build national capacities and institutional framework to support an innovative green economic recovery founded in environmental sustainable development. In this vein, some key achievements include:

On the regional and international front

- Active and High-Level Participation at the UN Framework on Climate Change (COP26)
- Active and High-Level Participation in Central American Commission for Environment and Development
- Active and High-Level Participation in United Nations Environment Assembly
- Active and High-Level Participation in the World Parks Congress
- Assuming the Presidency of the Selva Maya Strategic Group

On the national front

- Phasing out of Single-Use Plastics and Styrofoam and complete phase-out of all plastics in Protected Areas;
- Construction of an Autoclave to address Medical Waste;
- Passage of the Medical Waste Regulations;
- Establishment of the Monitoring, Reporting, and Verification Unit at the Forest Department;
- Establishment of the National Biodiversity Office under the Ministry;
- Establishment of a Fire Advisory Board;
- Commence works for the Construction of Six Fire Stations and Comprehensive renovation of all others;
- Successful implementation of Belize's REDD+ Readiness setting the groundwork for results-based payments;
- Completion of Belize's Low Emissions Development Strategy and Updated National Determined Contributions.

In November 2020 the former Ministry of Fisheries, Forestry, the Environment and Sustainable Development, was restructured to the Ministry of Sustainable Development, Climate Change and Disaster Risk Management (MSDCCDRM). This new and revamped Ministry is comprised of three overarching portfolios encompassing nine departments, i.e. the National Biodiversity Office (NBIO), the Sustainable Development Unit (SDU), the National Climate Change Office (NCCO), the Department of Environment (DoE), the Forest Department (FD), the National Meteorological Service (NMS), the National Fire Service (NFS), the National Emergency Management Organization (NEMO) and the Protected Areas Conservation Trust (PACT) (See Figure 1). The Ministry is led by the Honorable Orlando Habet who is supported by Chief Executive Officer, Dr. Kenrick Williams.

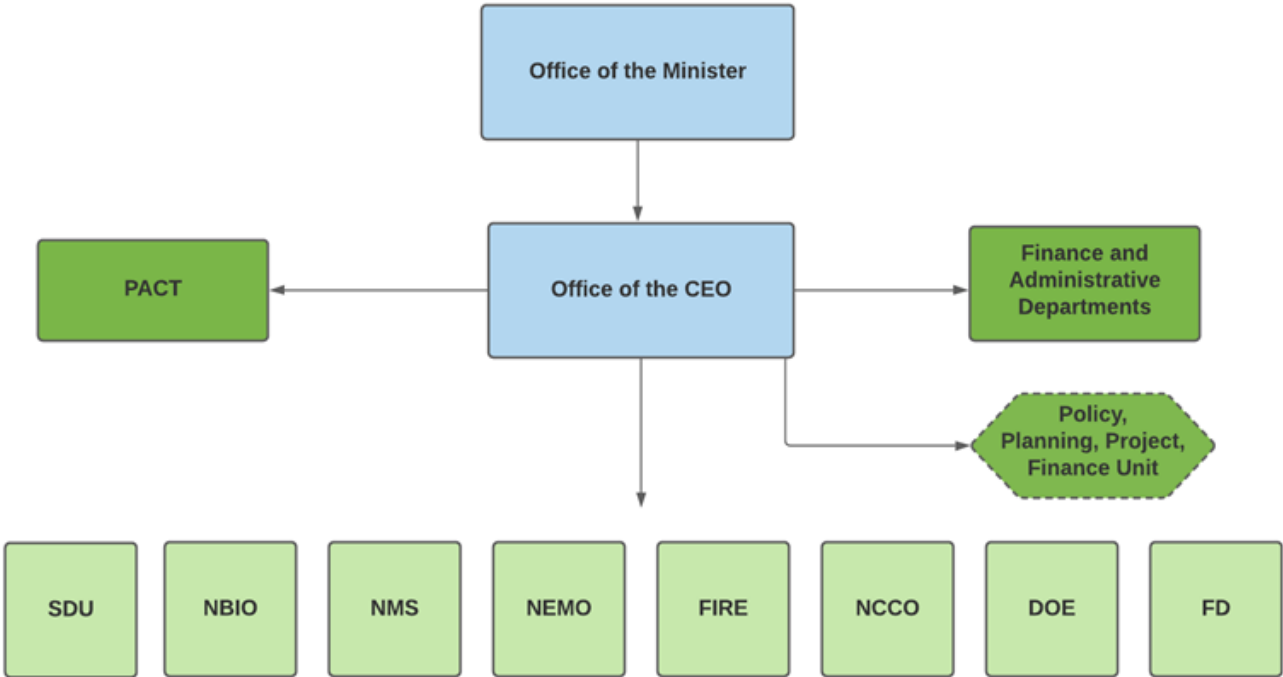


Figure 1. Organizational Structure of the Ministry

The thematic portfolios of the Ministry intersect to balance meeting the requirements of the present demands without overlooking the needs of the future generations. These portfolios, integrated, emphasize and acknowledge that development and economic growth should be inclusive and environmentally sound, and that assets and resources should be efficiently utilized in order to achieve poverty reduction, economic transformation, environmental protection and the overall well-being and security of the Belizean populace - the fundamental underpinnings of PlanBelize. Through the application of new and emerging technology, as well as the heightened sense of intrinsic human preservation, the MSDCCDRM is dedicated to tackling the challenges induced by an ever-changing climate. The effects of climate change, for instance, are adverse, and it is the duty

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of the Government of Belize, through the MSDCCDRM to ensure that adequate adaptation and mitigation measures are developed and implemented for and communicated to the citizens of Belize.

To set a solid foundation on which it would achieve its mandate over the term of this Government, the Ministry over the last year had conducted a rapid institutional and governance review of its departments, conducted an assessment and alignment of the PlanBelize to the Horizon 2030 and the 2030 Sustainable Development Agenda, had developed concept notes for bankable projects, prepared cabinet papers for revision of legislation pertinent to its portfolio, and made significant progress in the drafting of strategies, plans and policies for the MSDCCDRM. Through its restructured mandate and programmatic achievements, the MSDCCDRM has set the foundation for delivering high-quality services, while ensuring that the pillars of sustainable development are achieved. The success stories evident in this report attest to the Government's commitment to leading for sustained growth and prosperity for all Belizeans through the delivery of accountable and transparent services and actions.

2. Mission and Priorities of the Ministry

The Ministry is currently in the process of developing a more concrete, integrated and diverse mission and vision that supports the different portfolios within the Ministry and the departments that fall under. During this reporting period, the MSDCCDRM's overarching Mission is:

“To contribute to Belize’s sustainable development, improve climate resiliency and foster comprehensive disaster risk reduction.”

The MSDCCDRM actively seeks to integrate diverse financial solutions, mainstream sustainable development, climate change, environmental management and disaster risk management into policies and strategies across the entire Government of Belize to achieve sustainable outcomes. Recognizing that the MSDCCDRM is a new composite ministry, its success in pursuing its mandate and priority programmes is heavily vested in mindful and strategic planning, integration, and synergy.

Key Priorities for the 2021-2022 Fiscal Year:

- The scale-up of Belize’s role as an international leader in environmental protection and conservation through the high-level participation at regional and international conferences, meetings and projects.
- Develop and implement climate mitigation strategies and build climate resiliency to address the existential challenges of climate change.
- Develop and implement disaster risk mitigation strategies and build disaster resiliency.
- Improve data collection and analysis to enhance the process of well-informed decision making. i.e. The implementation of the MRV Programme.
- Phasing out of Single-Use plastics and Styrofoam and the complete phase-out of all plastics in Protected Areas.
- Mainstreaming of climate change, biodiversity conservation, sustainable development, and disaster risk management across key stakeholders and sectors.
- Improve resource mobilization to ensure the Ministry can carry out its mandate and functions effectively and have a greater environmental, societal and economic impact.
- Strengthening of the Human-Resource Capacity within the Ministry.
- Strengthening of weather and climate monitoring capacities.
- Improved synergies to enhance efficiency and productivity.

The following sections introduces the primary portfolios of the Ministry along with the departments that comprise each portfolio. Under each department, their missions are stated, their main achievements for the 2021-2022 fiscal year are outlined, and summaries of the ongoing projects are given in tabular format.

3. Sustainable Development

3.1. National Biodiversity Office

Mission: To be the leading institution safeguarding Belize's biodiversity and ecosystems for future generations, through effective partnerships while maximizing sustainable, social and economic opportunities.

Main/Highlight Achievements:

- The establishment of a Compliance and Monitoring Unit. This unit was established to ensure that natural assets are safeguarded against threats and that the ecological integrity of Belize's National Protected Areas System (NPAS) is maintained. This unit coordinates and supports strategic enforcement and monitoring of biodiversity laws and regulations.
- The development of a Biodiversity Investment and Impact Tracking Tool (BITT) via funding from the United Nations Development Programme (UNDP). This tool was developed to track investments in biodiversity and environmental management and allows for the tracking of key performance indicator trends, and their alignment with defined priority biodiversity targets and indicators.
- The development of a Protected Areas Business and Investment Framework. This sector has facilitated the identification of innovative business solutions and strategies to diversify and generate new revenue and income. In addition, it improves existing solutions and strategies to aid in covering operational costs, as well as foster the resilience of managers and communities against future financial shocks.
- The revision of their Co-Management Framework for Protected Areas. This updated version will provide criteria and guidelines to; Assess the feasibility of co-management, and set requirements for engagement of non-government partners as co-management entities; Establish the roles and responsibilities of the two partners (government and non-government) for effective sustainable management and good

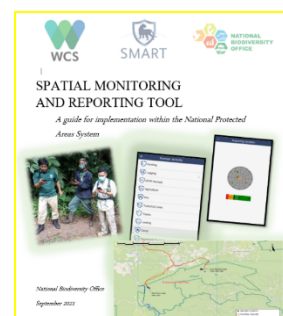


Figure 3.1.1 Spatial Monitoring and Reporting Tool

governance of Belize's protected areas; Monitor and evaluate the effectiveness of the co-management partnership and ensure reporting and transparency to the people of Belize.

- In efforts to strengthen their enforcement capabilities to address offenses across the protected areas network of Belize, a total of thirty-two (32) park rangers thus far have been trained and empowered as special constables. This Unit now targets enforcement in severely threatened, at risk and unmanaged remote sites.



Ongoing Projects:

Table 3.1.1 NBIO Ongoing Projects

Figure 3.1.2 Park Rangers Trained as Special Constables

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
Biodiversity Finance Initiative (BIOFIN)	<p>To develop and implement a methodology to quantify the biodiversity finance gap at the national level and improve cost-effectiveness through mainstreaming of biodiversity into national development and sectoral planning.</p> <p>To develop and implement comprehensive national resource mobilizing strategies.</p>	MSDCCDRM, Protected Areas Managers, MBECA	595, 495 USD	European Commission, Government of Germany, Switzerland, Norway, Flanders
National Biodiversity Institutional Strengthening Project	Enable the operationalization of the NBIO to successfully implement the National Biodiversity and Protected Areas priority actions and commitments; through an integrated, coordinated and, Cost-Effective approach to biodiversity management.	NBIO, Protected Areas Managers,	100, 000 USD	PACT

Development of a Spatial Monitoring and Reporting Tool (SMART)	Will be utilized for strategic enforcement interventions across the PA landscape. With the implementation of a national SMART system, there will be sufficient 'real-time' data to inform intelligence-based responses to address biodiversity threats and pressures.	NBIO, Protected Areas Managers,		PACT
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Lessons learnt:

- Realistic planning and adaptive management of programmes is critical for navigating a dynamic environment.
- Timely engagement of stakeholders is necessary to promote buy-in and success in the implementation of programmatic priorities.
- The establishment and implementation of clear and timely internal and external communication is key in the successful achievement of Unit activities.
- Maintaining a team-based approach to tackling programme implementation improves institutionalization and mainstreaming of programme goals and targets.

3.2. Department of Environment:

Mission: To ensure that Belize's development is sound through effective environmental management for present and future generations.

Main/Highlight Achievements:

- Enactment of the Medical Waste Regulations and installation of an Autoclave at the Mile 3 Transfer station. The autoclave will treat medical waste generated in Belize City for proper disposal.
- The amendment to the Environmental Protection (Pollution from Plastics) Regulations. The amendment extends the phase-out dates for the manufacturing, sale, and possession of prohibited items.
- Improved the environmental screening process by improving several sectoral checklists so that they are more user-friendly and able to provide relevant information needed by the department to process and evaluate an application.
- The department conducted a mid-term review of the implementation of the National Environmental Policy and Strategy 2014-2024 and the National Environmental Action Plan 2015-2020.
- The finalization of the preparation of a Comprehensive and Integrated Watershed Management Plan for the rehabilitation of the New River.
- Update of the Online Permit and Application Licensing system. This allows for a more convenient, effective, and efficient way for stakeholders to apply for various permits from the DOE.
- Implementation of Strategic Actions of the National Implementation Plan (NIP) for the Stockholm Convention.
- Execution of several community outreach programmes that are geared towards understanding human impacts of the environment, the role each Belizean plays, and highlights community activism for behavioral change.



Figure 3.2.1 Autoclave at the mile 3



Figure 3.2.2 Training and sensitization to Senior Customs Officers on the Plastic Regulations, Radiation Safety and Security and Ozone activities.

Ongoing Projects:

Table 3.2.1 DOE Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
Development & Implementation of a Sustainable Management Mechanism for Persistent Organic Pollutants (POPs) in the Caribbean.	Build both institutional and human resource capacity to deal with the impacts of POPs and unintentionally produced POPs (UPOPs).	DOE, PCB, BAHA, Ministry of Agriculture	USD 1,503,000 for 8 Caribbean countries	GEF 5558:
Integrated ridge to reef management of the Mesoamerican reef ecoregion (MAR2R) project.	Promotes ecosystem-based adaptation and mitigation actions in adjacent river basins to reduce stress on the MRS and address the existential challenges of climate change	DOE, Hydrology Unit, Forest Department, Ministry of Agriculture, Orange Walk Town Council, Communities along the New River	USD 652,828	GEF
Crew+ Project: An integrated approach to water and wastewater management using innovative solutions and promoting financing mechanisms in the		DOE, BWSL, Public Health, Dept Effluent, Generator (Private Sector)	USD 460,000	

Wider Caribbean Region.				
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Lessons Learnt

- Since the actions and tasks to deliver the Department's mandate are technical in nature, the transition to online communications has been challenging especially as it relates to stakeholder engagement.
- A mid-term review of the National Environmental Policy and Strategy 2014-2024 has revealed that key partners in the implementation of the plan do not consider the implementation of the actions therein as their responsibility and further perceive the actions should be implemented by the DOE.
- Through the many regional and international projects being managed by the Department, several opportunities were made available for qualified Belizean to apply for various environmental-related consultancies but of the many opportunities, only a few showed interests, even after extension of the date for submission of expression of interest.
- Addressing the national environmental challenges requires close collaboration and cooperation from all major partners. Collaboration and cooperation foster effective and efficient responses to these matters.
- The Department needs to promote more broad and targeted national discussions of the major environmental issues.
- It is important to maximize benefits from the various projects being implemented and ensure that tangible and impactful outputs are delivered.

3.3. Sustainable Development Unit:

Mission: Support the process of achieving sustainable development through the facilitation of an integrated and participatory approach to the integration of the principles of sustainable development.

Main/Highlight Achievements:

- Preparation of the PlanBelize Medium-Term Development Strategy
- Monitoring and reporting of Sustainable Development Goals (SDG's)
- Resource Mobilization

Ongoing Projects:

Table 3.3.1 SDU Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
Building Climate Change Resilience and Social Integration of Displaced People in Settlements of Western Belize	To support displaced persons in migrant settlements to become productive members of their host communities and participate in furthering their common resilience, socio-economic growth, and sustainable development, thereby preventing further displacement	The villages of Santa Familia, Billy White, Duck Run 1, Duck Run 2, Duck Run 3, and Los Tambos	2, 300, 000 USD	European Union (EU)

Figure 3.3.1 Launch of “Lives in Dignity Project” in Santa Familia Village, Cayo District



Lessons Learnt:

- As highlighted in the GSDS gap assessment report, a major gap identified was the lack of a proper institutional arrangement and a dedicated secretariat for the coordination of Belize's medium-term development strategy. If the SDGs are to be achieved, putting in place a robust institutional arrangement is crucial. The SDU has and continues to advocate for the inclusion of non-state actors in the PBMTDS coordinating mechanism.
- The two (2) person unit, although faced with challenges, remains optimistic and actively pursues efforts to promote the mainstreaming of SDGs into national and sector plans and lead the efforts to strengthen the SDG data management. However, if the unit is to be more effective in future endeavors, building the human resources capacity is paramount. In addition to allowing greater coordination and mainstreaming into the actions of all parts of government, it would also improve the follow-up and review process (tracking of SDGs and MTDS). More importantly, it would give Belize an opportunity to be more effective in the realization of its sustainable development framework for improving the lives of all Belizeans living now and, in the future, and to ensure that no one is left behind.

3.4. Forest Department:

Mission: A results-oriented Department that manages Belize's forest resources, enabled by informed decision-making and highly motivated and competent staff, in collaboration with partners and stakeholders.

Main/Highlight Achievements:

Infrastructure Renovation and Developments:

- At the mountain Pine Ridge Forest Reserve there was the refurbishment of the Cooma Cairn Guard House, Pine Ridgito Guard House and public restrooms and the installation of a security booth at the entrance of the Forest Reserve. Additionally, the Rio on and Rio Frio recreational sites were completely refurbished and upgraded to enhance the visitor experience to the area.
- The department also notes the rehabilitation of the Forest Offices at: Savannah, Stann Creek District; San Ignacio, Cayo District, Orange Walk, Orange Walk District.
- The department has also upgraded and rehabilitated the Belmopan Office Storage Facility and retrofitted the Machaca, San Ignacio, Douglas D' Silva and Belmopan nurseries to provide seedlings for reforestation and replanting efforts throughout Belize.



Figure 3.4.1 Cooma Cairn Ranger Quarter



Figure 3.4.2 Rehabilitation of the San Ignacio Forest Office

Provision of equipment:

- Strengthening of the fire management programme through the procurement of fire equipment and radios for improved communication and a drone for monitoring.
- Strengthening of the sustainable forest management programme through the purchasing of a Xylotron and related equipment to conduct seed and specimen collection.

- Computer and office equipment was purchased for 75% of the technical staff, including GPS, SMART Phones, and other field equipment.
- Provision of transportation for four of six ranges such as four (4) 4x4 vehicles, four (4) ATVs and two (2) Mules.

Legislation, Policy, and Strategy Development:

- Finalization and introduction of the DRAFT CITES Bill to parliament. The introduction of the “Trade in Endangered Species Bill, 2020” to the House of Representatives.
- Development of the National Landscape Restoration Strategy (NLRS) for Belize that will guide restoration activities both in and outside of protected areas.
- Bonn Challenge Pledged by Minister Habet. Belize has prioritized a total of 130,000 hectares for the period 2020-2030.
- The document “To Develop Guidelines & Permitting Processes for game rearing of game species in Belize” has been developed.

Institutional and National

- Establishment of the Measuring, Reporting and Verification Program. The MRV Program will catalyse the Belize National Forest Monitoring System, to ensure that the national level and project-level coordination is sustained. Furthermore, as Belize moves into an era to implement ambitious targets of its NDCs, the Forest Department MRV program will ensure the monitoring and reporting on the progress of our actions.
- Signing of the Interim Co-management agreement with the Caye Caulker Group for Environmental Sustainability for the management of the Caye Caulker Forest Reserve for a five-year period.
- Development of the Draft Hardwood Importation Procedures. This will allow the importation of hardwood timber and pine to offset the decline in domestic production. The procedures include criteria to establish an import quota, importer selection, restrictions on product type and species, the permitting process, and a permit fee.
- There were three successful joint interagency patrols conducted in the Chiquibul and Colombia Forest Reserve.
- The Forest Department collaborated with four protected areas co-managers in providing trainings, workshops and mentoring to strengthen their capacity to monitor and implement management plan actions. The Forest Department, through KfW/IUCN project support made donations to:
 - o Sarstoon-Temash Institute for Indigenous Management (SATIIM) for the management of the Sarstoon-Temash National Park totaling 82,000 BZD in equipment and management plan development

- Programme for Belize for the Rio Bravo Conservation and Management Area totaling 195,000.00 BZD in equipment and management plan development
- Friends for Conservation and Development, totaling 5,600 BZD towards the review of the Chiquibul National Park Management Plan.
- Itzama Society for the management of “Noj K’aax H’Men Elijio Panti National Park (EPNP)” totaling 120,000.00 BZD in equipment, signage and management plan development.

Ongoing Projects:

Table 3.4.1 NFD Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
Strengthening of the strategic and operational cooperation for the protection of the Selva Maya	Strengthening the regional strategic and operational cooperation for the protection of the Selva Maya” is: Regional cooperation between Belize, Guatemala, and Mexico for the protection of the Selva Maya Forest area.	FD, MSDCCDRM, Foreign Affairs, PA Managers	1, 374, 000 EUR	GIZ
Global Wildlife Program: Enhancing jaguar corridors and strongholds through improved management and threat reduction	The objective of this medium-sized project is to secure jaguar corridors and strengthen the management of jaguar conservation units through reduction of current and emerging threats, development of sustainable wildlife economy and enhanced regional cooperation. Component 1: Conserve wildlife and habitats	FD, NBIO, CSFI, YCT, Local Communities	1,234,404 USD	GEF 7

	<p>Component 2: Promote a more wildlife-friendly economy</p> <p>Component 3: Combat wildlife crime and unsustainable hunting</p> <p>Component 4: Coordinating and enhancing knowledge</p>			
Project for the Development of Capacities in the Management and Integral Conservation of Biodiversity in the SICA Region	<p>1. Create a regional information system for centrally ascertaining the status of biodiversity conservation throughout the region;</p> <p>2. Study and extend business models under which both biodiversity conservation and regional economic development can progress;</p> <p>3. Share intra-regional knowledge and build the capacity of experts.</p>	FD, San Antonio Village	100,000 BZD	JICA
Integrated management of production landscapes to deliver multiple global environmental benefits	<p>The objective of the project is to mainstream biodiversity conservation and sustainable land/water management into production landscapes in Belize.</p> <p>Component 1: Enabling environment (policies, financial mechanisms, and institutional capacities) for delivering multiple Global Environmental Benefits</p>	FD, Agriculture, NBIO, Lands, Hydrology, FCD	5,108,933 USD	GEF 6

	<p>(GEBs) through the sustainable management of production landscapes</p> <p>Component 2: Delivering multiple GEBs through sustainable production and improved value chains for key agricultural and forest products from the Belize River watershed</p> <p>Component 3: Knowledge Management and Learning</p>			
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Lessons Learnt:

- Discussion and communication on different issues such as management of marine and terrestrial resources, import/export of plants including timber species amongst others.
- More investment needs to be made in “monitoring” so that staff can not only strengthen their capacity, but also have the resources needed to conduct the activity.
- Project development should be aligned with the Department’s strategy and with national and international commitments to ensure successful implementation.

3.5. Protected Areas Conservation Trust

Mission: The mission of the Protected Areas Conservation Trust (PACT) is to contribute to the effective management of Belize's National Protected Areas System through strategic partnerships and high impact investments.

Main/Highlight Achievements:

- Accreditation as the 1st Global Climate Fund (GCF) Direct National Entity in Belize.
- Re-accreditation as the Adaption Fund (AF) National Implementing Entity in Belize.
- Creation and operationalization of a Climate Finance Portfolio.
- Expansion of Fiduciary & Grant Management Portfolio.
- Re-structured National Protected Areas System (NPAS) Conservation Investment Programme.
- New & Improved Office Facilities.
- Effective COVID 19 Pandemic Response via Adaptive Management.



*Figure 3.5.1 Green Climate Fund Training
Workshop*

Ongoing Projects:

Table 3.5.1 PACT Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
NPAS Conservation Investment Program				
Targeted, Secondary, and Extraordinary Investment Programs in support of the NPAS	1. Biodiversity and Ecosystem Health. 2. Financial Sustainability/ Revenue Generation. 3. Development and/or expansion of socio-economic benefits from the NPAS.	19 protected areas, 11 co-management NGOs, 1 Umbrella PA NGO, 2 GOB Agencies.	BZD 10,241,604	GCF
Climate Finance Portfolio				
Enhancing Access to Climate Finance Opportunities, through pre-accreditation support to Belize Social Investment Fund (BSIF) and the Ministry of Economic Development (MED)-Belize and technical support for the Belize NPAS Entities.	1. To undertake an Accreditation Gap Assessment to strengthen the MFEDI's current structure. 2. To fill the GCF accreditation gap of the BSIF. 3. To assess NPAS Entities to understand their climate-adaptive needs and strengthen their ability to implement climate strategies via projects/programs	NPAS, Ministry of Economic Development, BSIF.	USD 600,000	GCF

Capacity Building for PACT as a GCF National Direct Access Entity	To provide post-accreditation support to PACT.	PACT and NPAS National Stakeholders	USD 279,062	GCF
Enabling Activities for the Formulation of a Multisectoral National Adaptation Plan for Belize.	Formulation of a Multisectoral National Adaptation Plan for Belize.	NCCO and National Stakeholders	USD 1,500,000	GCF
Project Formulation Grant & Project Formulation Assistance Grant	To develop a project proposal “Building Community Resilience via Transformative Adaptation”.	National Stakeholders	USD 50,000	AF
Enhancing the Resilience of Belize’s Coastal Communities to Climate Change Impacts	To increase the climate resilience of 27 coastal communities in Belize.	27 Coastal Communities	USD 4,000,000	AF
			Total - USD 6,429,062	
Fiduciary & Grant Management Portfolio				
Small Grants Program	Marine Conservation Support.	Half Moon Caye Natural Monument, Mar Alliance	BZD 107,378	MAR Fund

Small Grants Program	Protected Areas Management Support.	Community Baboon Sanctuary, Monkey Bay Wildlife Sanctuary	BZD 75, 408	Belize Nature Conservation Fund
Integrated Ridge to Reef Management of the MAR Ecoregion	To strengthen integrated management of water resources in Belize.	Belize River and New River watershed stakeholders	BZD 1,305,658	GEF
REDD+ Readiness Project	Framework for Belize's Implementation of REDD+ Program	National Stakeholders	BZD 7,600,000	FCPF
			Total - BZD 9,088,354	

Lessons Learnt:

- One in every 3 projects cost more than 150%.
- Programmes and stakeholders don't prepare for disaster, risk, and recovery
- PACT's funding support has proved critical for protected areas in Belize.

4. Climate Change

4.1. National Climate Change Office

Mission: The mission of the National Climate Change Office (NCCO) is to demonstrate leadership and commitment to ensure that the challenges of Climate Change and sea-level rise are fully addressed by harnessing the necessary resources in support of the development of special programmes that are effective, resilient and sustainable.

Main/Highlight Achievements:

- The full implementation of the REDD+ Readiness Project, which included the development of a REDD+ Strategy, a national forest reference emissions level and a forest reference level, a system for national forest monitoring and safeguard and a monitoring and evaluation framework.
- The implementation of the IOM Project “Strengthening the Technical Capacities of the Government of Belize towards an improved management of internal migration in the context of climate change through the enhancement of evidence, capacity development, and policy planning”. Key deliverables were the following:
 - o The execution of climate change vulnerability assessments in 11 target coastal communities; Chunox, Sarteneja, Belize City, San Pedro, Caye Caulker, Dangriga Town, Hopkins, Riversdale, Placencia, Monkey River, Punta Gorda Town.
 - o The development of guidelines for planned relocation.
 - o The development of human mobility report.
- The development of Belize’s first Biennial Update Report and submission to the UNFCCC.
- The development of Belize’s Nationally Determined Contributions (NDC) and submission to the UNFCCC.
- The development of an implementation plan for Belize’s Nationally Determined Contributions (NDC).
- The development of Belize’s Low Emissions Development Strategy.
- The development of Belize’s First Climate Finance Strategy
- The development of Belize’s Fourth Greenhouse Gas Inventory for reference years 2012,2015, 2017.



Figure 4.1.1 Water Truck Purchased

- The development of Belize's National Climate Change Policy, Strategy and Master Plan.
- 10 short video docuseries produced aiding in building public and key stakeholder awareness of climate change and effects on population in Belize
- The purchasing of a water truck to support the Ministry of Rural Transformation.
- The support of capacity development in Water Resource Modeling, GHGI 2006 IPCC guidelines and software, GHG Accounting, GHG MRV, Vulnerability, and Capacity Assessments.

Ongoing Projects:

Table 4.1.1 NCCO Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
REDD+ Readiness Preparation Project	The objective of the project is to assist Belize in preparing to participate in future REDD+ carbon payment transactions, climate finance mechanisms.	Indigenous communities, river-valley communities private/public land owners, GOB, NGO Stakeholders.	USD 3.80 million	Forest Carbon Partnership Facility through the World Bank.
Belize's Fourth National Communication and First Biennial Update Report to the UNFCCC	The immediate objective of the FNC/BUR project is to assist Belize in the preparation and submission of its Fourth National Communication Document to the Conference of the Parties to the UNFCCC and to support the country's submission of its First Biennial Update for the	GoB, Private-Sectors, Community at large	USD 852,000	GEF

	fulfillment of its obligations to the Convention.			
UNDP's Climate Promise-safeguarding agenda 2030 through bold climate action	The main aim of the project will be to deliver on the promise of the Paris Agreement by supporting Belize to undertake an inclusive and transparent engagement process for enhancing the NDCs, with a demonstrated increase in ambition.	The sectors of energy, forestry, coastal zone, fisheries, transport, health, tourism, etc.	USD 115,000	
NDC Partnership: NDC review/update	<p>Objective 1: Enhance NDCs, including by raising ambition, as part of the Paris Agreement's NDC update process.</p> <p>Objective 2: Fast-track implementation of NDCs, including by providing in-country technical expertise and capacity building</p>	The sectors of energy, forestry, coastal zone, fisheries, transport, health, tourism, etc.	USD 659, 875	<p>NDC Partnership through:</p> <ul style="list-style-type: none"> - NDC Partnership Support Unit - Commonwealth secretariat - Rocky mountain institute -UNFCCC - Regional Collaboration Center (Granada) - IRENA - Climate Technology

				Center & Network (CTCN)
IOM Project “Strengthening the Technical Capacities of the Government of Belize towards an improved management of internal migration in the context of climate change through the enhancement of evidence, capacity development, and policy planning	<p>Decreasing vulnerability of 11 target coastal communities; Chunox, Sarteneja, Belize City, San Pedro, Caye Caulker, Dangriga Town, Hopkins, Riversdale, Placencia, Monkey River, Punta Gorda Town, by assessing internal mobility due to climate change and sudden onset disasters.</p> <p>Develop a protocol for the planned relocation of communities, as well as a report on human mobility to be mainstreamed into the National Climate Change Policy, Strategy and Master Plan, and a communication strategy for internal migration and climate change.</p> <p>Completion of Communication Strategy</p> <p>Execution of training workshop for GOB departments</p>	Vulnerable communities, NCCO, GOB	USD 200,000	

Consultancy to design projects for shoreline recovery and shore stabilization in Dangriga and Hopkins.	Assessment of erosion processes in Dangriga and Hopkins and recommendations designed based on findings	Dangriga, Hopkins, NCCO	USD 129, 838.22	Funded through the Engender and the Belize Fourth National Communication projects.
Enabling Gender Responsive Disaster Recovery, Climate and Environmental Resilience in the Caribbean (EnGenDER)	<p>EnGenDER's overall goal is to improve gender-responsive climate and disaster resilience including for women and girls and key vulnerable populations and future generations in the Caribbean.</p> <p>It is supporting climate change, disaster risk reduction and environmental management interventions by leveraging sector-level entry points (e.g. National Adaptation Plans [NAPs] and Nationally Appropriate Mitigation Actions [NAMAs]) in nine Caribbean countries from 2019-2023.</p>		<p>USD1,142,592.54: out of this 100,000 BZD Grant Funds used for the connecting of homes to the microgrid: Indian Creek, Medina Bank and Golden Stream</p>	<p>Donors:</p> <p>CANADA</p> <p>UK AID</p> <p>UN WOMEN</p> <p>CDEMA</p> <p>WORLD FOOD PROGRAM</p> <p>UN WOMEN</p> <p>UNDP</p>
Initiative for Climate Action Transparency (ICAT)	The establishment of impact and progress indicators, institutional arrangements, data collection and storage	USD 125,000		

	and impact assessment of a selected NDC policy that will ultimately facilitate the enhancement of the national MRV system for climate change.			
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Lessons Learnt:

- Project success is dependent on the full consultation of the target community and the provision of opportunities for free, prior, and informed consent to be given before activities are implemented.
- It is important to have a clear understanding of project constraints (scope, budget, and schedule) in order to facilitate the successful implementation of activities. Frequent changes to the triple constraints can have a detrimental effect which can lead to project failure.
- It is important to align the national reporting processes in order to meet international obligations. This will avoid duplication of efforts and avoid delay of reports.
- Capacity development for Green House Gas Inventory (GHGI) reporting processes needs to be on an annual reoccurrence. This will assist GHGI sector leads to be more confident and knowledgeable of the processes. It can also capture new technical personnel within the respective sectors.
- Ensure that measures are in place to involve multi-sectoral participation throughout the GHGI process. Utilize and build capacity within private and public entities who can serve as external experts for national peer review.
- Discuss the possibility of having government counterparts shadow international consultants hired to conduct the vulnerability assessments as a means of enhancing technical capacity within the public sector. Create a Vulnerability and Adaptation (V&A) technical team who will assist in overseeing and validating the V&A assessments and build capacity in the team for continuity and sustainability.
- Many entities welcome and support the concept of MRV, however, it is recognized that many require assistance both in terms of human and financial resources and even capacity building.
- Presentation of some concepts and project activities required more elaboration and it should be kept in mind to use jargon that would be familiar to the stakeholders being targeted.

5. Disaster Risk Management

5.1. National Emergency Management Organization

Mission: NEMO in cooperation with the respective national committees and all public and private agencies, is established to preserve life and property throughout Belize in the event of an emergency, threatened or real, and to mitigate the impact on the country and its people.

Main/Highlight Achievements:

National and District Structure /Committees

- NEMO's highest management structure - national, district, and special committees' terms of reference and membership were regrouped and improved to meet new leadership requirements including the formation of new national committees (disability and maritime) and the updating of the villages' emergency committee's membership.

Meetings and Planning Sessions

- Conducted planning sessions with Emergency Operation Center (EOC), sub-committees, supporting organizations, area representatives, District Association of Village Council (DAVCO) and community leaders to address data sharing for the most vulnerable communities, evacuation, and mitigation plans as part of the hundred (100) days plan for PlanBELIZE.

Early Warning and Emergency Communications

- In partnership with UNDP, Tsunami Warning Systems (110 dB air raid acoustic sirens) were installed in local Police stations, Emergency Operations Centers/Offices, and Fire stations, including the development of Tsunami warning Standard Operation Procedures (SOPs) for at-risk communities.
- In partnership with the Belize Electricity Limited (BEL), repaired the Baldy Beacon VHF Tower and Repeater system-central hub for several line ministries.
- Conducted monthly High Frequency (HF) and Very High Frequency (VHF) radio communication checks and redesigned the department's Belize Telecommunication postpaid plans.

Training and Public Education

- Trained hundreds of public officers, community emergency teams, village committees, volunteers, school wardens, and river monitors in subjects such as relief supplies management, kobo app data collection, damage assessment and needs analysis, emergency operations center management, community disaster preparedness, dam-break, shelter management, and first-aid.



Figure 5.1.1 Public Officers Training

- NEMO along with various international emergency organizations, participated in an Aging and Disability Webinar, Geographic Information System (GIS) training, Centro de Coordinación para la Prevención de los Desastres en América Central y República Dominicana (CEPRENAC) Webinar, and the first disability conference. The United States Agency for International Development (USAID) and the United Nations Children's Fund (UNICEF) supported some of the training.
- Two-thousand (2000) people were connected via the Virtual Agricultural Show Booth, Facebook and the website.
- A training portal for public officers and village emergency committees, distribution of over six-thousand (6000) hurricane and flood preparedness booklets issued to parents, awareness meetings, household visits, and presentations to several organizations and dozens of schools were conducted as part of the education campaign.
- A national flooding preparedness TV interview targeting the Hispanic community was executed. Identified communication assets and owners of radio stations, TV stations, internet providers to disseminate information.

Mitigation

- Flood mitigation works were conducted with NEMO's Backhoe in conjunction with the Ministry of Infrastructure, Development and Housing (MIDH) for families residing in low areas in central Belize.
- Shelter inspections, production of the national shelter list, and backup shelter list were done.
- Improved and reproduced signage (Transportation signs) and passes (BEL, BTL, and BWS, SMART) for the Belize City constituency emergency evacuation process.

IT/GIS

- GIS documentation of 71% of shelters including a GIS visual representation of the NEMO warehouses, NEMO Offices completed, and evacuation routes for areas prone to serious damages for the vulnerable communities mapped. Produced a hazard map for Belmopan, which includes, Biological, Environmental, Geological, Hydrometeorological, and Technological Hazards.

Emergency Plans

- Advanced multi-hazard planning, multi-hazard plans completed including human resources, shelter contacts, heavy-duty equipment, bus owners databases updated.
- Refinement of the Central region zone evacuation plans.

Operational Documentation

- Established a NEMO National Fire report assistance release form database, and reporting accounting mechanism.
- Standardized and analyzed NEMO data collection forms which improved readiness for the EOCs'.
- Compiled state of readiness database.

Humanitarian

- Distributed humanitarian aid to over nine hundred (900) families affected by fire, thunderstorm and indigent conditions. Improved response time to provide assistance to fire victim and humanitarian cases.



Figure 5.1.2 Humanitarian Aid

Ongoing Projects:

Table 5.1.1 NEMO Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
NEMO National and District Committees	To prepare senior government leaders in their role and function in managing NEMO national committees in times of disasters	All committee members, NEMO staff, and the people within the districts.		GoB
HQ Program Training	Increase the department's disaster risk reduction training outputs by training public officers, partners, the public, volunteers and equipping them with the required knowledge and skills to properly manage public shelters during disasters	Over 470 Public officers, Teachers, Tour Guides, Belize Local Association Of Stakeholders In Tourism (BLAST) and volunteers from Toledo, Stann Creek, Belmopan, San Ignacio/ Santa Elena, Belmopan, and Belize City	250, 000 BZD	GoB
HQ Program Operations/ Mitigation	Develop and update multi-hazard plans and maintain a consistent reporting process utilizing standardized forms and data collection to analyze operations data utilizing national	NEMO Staff, the national emergency committees, five warehouses, partner organizations, and hundreds of public officers and volunteers.	392, 000 BZD 92,000 BZD	GoB

	State of Readiness Reports.			
HQ Program Communication	Advance NEMO early warning system by increasing the number of Tsunami warning systems (Sirens) in major coastal communities and maintain the department's communication system and assets whilst improving staff capacity before, during, and after a disaster.	Thousands of at-risk people Residence in the coastal communities and NEMO staff	73, 700 BZD	GoB
HQ Program Humanitarian /Logistics	Enhance NEMO humanitarian system, efficiently assist people, collect data and reports	Over 900 people	314, 800 BZD	GoB
HQ Program IT/GIS	Utilize Geospatial data and ArcGIS to create maps to complement DRM work and develop a NEMO IT Equipment and Maintenance plan	At risk persons, GoB line ministries and NEMO staff		GoB
North, Central and Southern Regions	To prepare the district staff, committees, volunteers, and people to reduce risks, respond to,	Public officers, city council employees, area representatives, community leaders,	718, 350 BZD	GoB

	and recover from emergencies and disasters	volunteers and committee members, NGOs, and CBOs.		
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Lessons Learnt:

- Newly elected or appointed senior officials need to receive continuous training in their roles and functions prior to the Hurricane Season. There is a need for additional Damage Assessment, Emergency Operations Center management and Search and Rescue training.
- NEMO District offices - command center needs more vehicular support, right through to the end of all operations.
- Funding requests for shelters after repair is important to increase shelter space considering COVID 19. All shelters must be properly inspected and prepared prior to the arrival of the public seeking shelters.
- Shelter Management, Damage Assessment and Needs Analysis training must be coordinated early for Public Officers, and Volunteers. In Belize City and Belmopan, there is a higher requirement for training due to the vast number of exposed homes in Belize City, and the fact that people will evacuate to Belmopan.

5.2. National Meteorological Service

Mission: The National Meteorological Service of Belize is the leading governmental authority on weather and climate. It provides meteorological and climate-based products and services to the Belizean public through systematic and accurate data monitoring and collection, reliable data analyses and forecasts, and timely dissemination of user-friendly reports and forecasts on all weather and climate-related events and hazards. This is undertaken in order to contribute to the safety and well-being of the people of Belize and the sustainable development of the nation.

Main/Highlight Achievements:

- The Doppler radar was repaired in time for the 2021 Atlantic Basin Hurricane Season and served throughout the entire season without any significant downtime.
- Three weather stations were installed with the assistance of the Caribbean Community Climate Change Center (CCCCC) and the Belize Urban Resilience and Disaster Prevention Project-Taiwanese Project, through the Global Climate Change Alliance Plus (GCCA+) Project. These stations are currently installed at Punta Gorda, (Toledo District) Central Farm (Cayo District) and San Carlos (Orange Walk District) and will complement the department's network of weather stations.
- The Department was able to secure a grant from the Caribbean Catastrophic Risk Insurance Facility (CCRIF) for just over USD 40,000 that will aid in procuring and installing additional weather sensors to be installed on weather stations across the country.

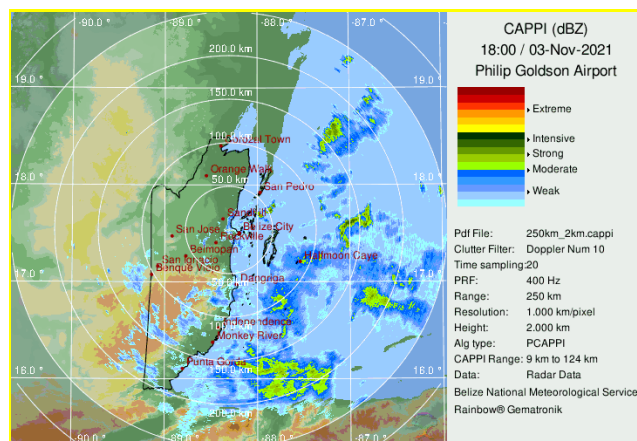


Figure 5.2.1 Doppler Radar showing rain and showers on and near the country



Figure 5.2.2 Weather Station Installation

- Through the Energy Resilience for Climate Adaptation Project (ERCAP) the data integration system was completed as well as the Hydrological Model and Forecast System for the Macal River Basin.
- A new workstation was purchased for the Weather Analysis and Forecast Section through funding from the Environmental Management Fund.
- Provision of Weather and Climate Forecasts to the public and stakeholders as well as critical weather observation for aviation safety purposes continued.

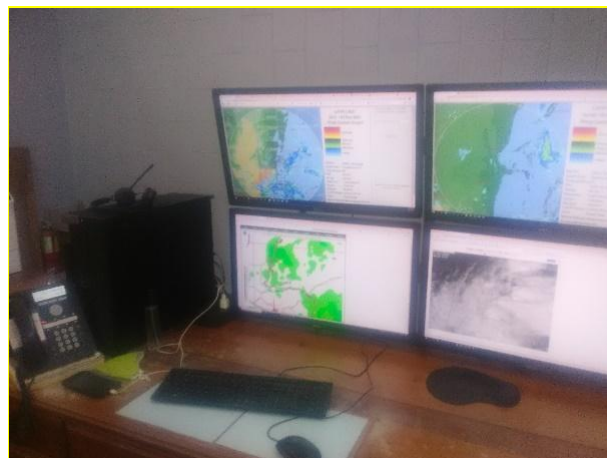


Figure 5.2.3 New Workstation Purchased

Ongoing Projects:

Table 5.2.1 NMS Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
CCRIF Grant to Install Weather Sensors	To equip weather stations across the country with improved rainfall and temperature sensors to increase the reliability of data collected.	All users of rainfall and temperature data, Disaster Management	USD 43,000	
Procurement and Installation of additional weather stations through the Energy Resilience for Climate Adaptation Project (ERCAP)	To increase the number and coverage of weather stations including offshore locations as well as in the Macal River Basin. Enhance the ability to issue an early warning of potentially catastrophic weather events	Belizean Public, Energy Companies, Disaster Management	USD 836,000	

Resilient Rural Belize (RRB) Project	Develop a Climate Information System that will provide farmers with timely and accurate climate information, allowing them to plan their activities accordingly and minimize climate-related losses.	Belizean Public, Small Farmers, Agricultural Sector	USD 256, 300	
Climate Resilient Smallholders Agriculture Project (CRESAP)	Engagement in a wide range of activities that will assist the NMS to better deliver crucial services that will aid small farmers in their decision-making process and improve productivity.	Belizean Public, Small Farmers, Agricultural Sector	USD 400,000	

Lessons Learnt:

- It is an essential that the NMS collaborate with different agencies both local, regional and international to fulfill its mission and to develop projects that will assist the department in developing its infrastructure, as well as enhancing the services provided.
- The department is competing with several online platforms that deliver more detailed and precise (though not necessarily accurate) forecasts. Therefore, the NMS needs to devise strategies to increase the relevance, accuracy, and preciseness of its weather forecasts.
- Related to the above, the department must now look at impact-based forecasting as a priority. This includes developing specialized products/forecasts that target special events (i.e., sporting events, fairs, etc.).

5.3. National Fire Service

Mission: The Belize National Fire Service shall create a safer Belize from fires and explosive hazards for its people through public education and highly trained personnel working in cooperation with other relevant agencies and organizations.

Main/Highlight Achievements:

- Capital spending on station renovations and upgraded equipment totaling more than half a million dollars. These renovations are a part of our revitalization project and rebranding which will see major improvements in the quality of services delivered to the Belizean Public by the National Fire Service.
- The expanding of our Emergency Medical Response (EMR):
 - o Will see our ambulatory service expanded to include Benque and Belmopan with ambulances being procured for those stations.
 - o Will include training in first aid/ basic medical response in all the surrounding villages in the Cayo District.
 - o The creation of a Central Emergency Dispatch Center located at the Belmopan Fire station
 - o An emergency radio network to include NEMO, the BDF, and Police.
- In the past year, NFS has inspected 2000 buildings and responded to a number of different emergencies. In the table below, you can find the information summarized:

Table 5.3.1 NFS Emergencies Received

Category of Emergency:	Count:
Structural fires	110
Bush fires	400
Rescue operations from Road Traffic Accidents (RTA)	30
False Calls	95
Garbage Fires	225
Ambulance Responses	320

- Many of the structural fires resulted in complete destruction, while approximately 25 were saved and only partially damaged.
- Reasons for those that were not saved include but are not limited to: fair distance from the fire scene, small villages surrounding a town or city, distance from a water source or hydrant - (fire trucks only carry a limited volume of water, once it's depleted, it has to go and find more unless there is a hydrant or water source nearby), traffic, the time the call came in.

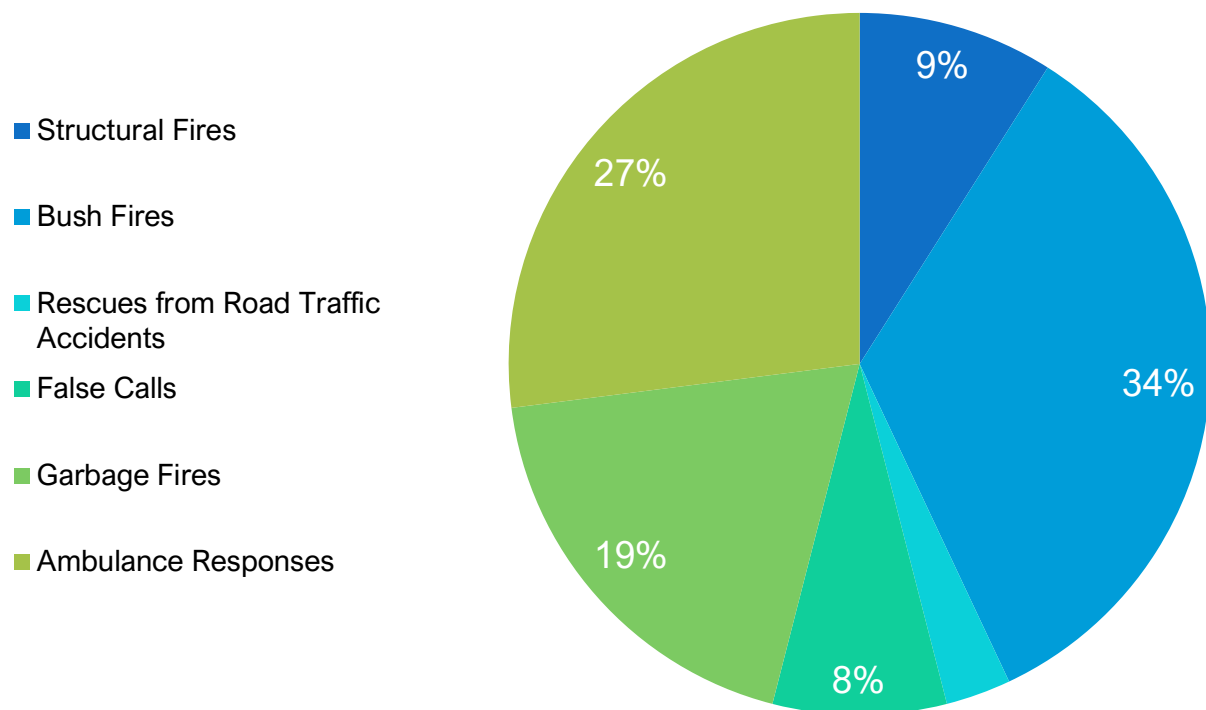


Figure 5.3.1: NFS Responded Emergencies by Type (As a Percentage of Total)

- As seen in the graph above, the majority of the emergencies responded to were as a result of bush fires (400 total). Many of these bushfires threatened residential homes. As a result of this, bush fires, along with garbage fires, will be a priority campaign for the coming year.
- In efforts to be proactive and preventative, NFS posted over 225 fire safety messages on social media.

Ongoing Projects:

Table 5.3.2 NFS Ongoing Projects

Program/Project Name:	Objectives:	Beneficiaries:	Program/Project Cost:	Funding Agency:
Comprehensive Approach to Pre-Hospital Care in the Cayo District	To improve access to emergency services. To expand the infrastructure Of EMT's in the Cayo District. Improve the utilization Of emergency medical services.	The communities in the Cayo District including Benque, San Ignacio, Santa Elena, Belmopan and surrounding villages.	250 000 USD	The Virginia Emergency Services Assistance Program for Belize, funded through a grant of \$250,000 U.S from the U.S. Embassy's Central America Regional Security Initiative (CARSI)

Lessons Learnt:

- When executing a project, there needs to be more communication at all levels. An example of how this lesson was learnt was when the intent and objectives were not clearly outlined to the firefighters to get their buy-in, resulting in hesitation to participate. The issue has since been resolved, and we continue to keep them abreast throughout each phase of the project.
- Communication with the wider public through social media posts and other forms of media will allow us to showcase our work and get the 'buy-in' that we need from them, to be as effective in our work as possible.

6. Future Priorities of the Ministry

While every department under the Ministry has their own unique priorities that are customized and tailored to the needs and demands of their specific sectors, there are similar agendas highlighted among the various departments that represent the future priorities of the Ministry as a whole. These demands can be expressed through the following:

Strengthening of Legislation, Policies and Strategy Development – It is understood that for the Ministry to be effective, it has to be grounded on firm legislature and policies. Considering this, one of the main future priorities of the Ministry is the fortification of its legislatures, policies and strategies. The Ministry plans to reform and standardize its legislature and policies to decrease gaps, increase rewards and be more integrated to ensure that no one is left behind. In this regard, the Ministry will be working on several initiatives to accomplish this, some notables include:

- i. Development and finalization of the Wildlife Protection Act. The Wildlife Protection Act dates to 1981 (Wildlife Ordinance to 1960s) and requires updating and possibly repeal and replacement with a newer more modern law that encapsulates the current local, regional, and international realities relating to Wildlife Management.
- ii. Implementation of the National Agroforestry Policy. The objective is to mainstream the use of Agroforestry systems that are productive, competitive, and adaptable by small, medium and large farmers, producers and land users, in order to enhance food and nutrition security, contribute to landscape restoration goals, sustainable forest management, conserve natural resources (i.e. lands, forests, biodiversity and water), improve the environment, decrease greenhouse gas emissions and strengthen the resilience of the agricultural sector to climate change.
- iii. Development of a national Wastewater Management Policy and Strategy.
- iv. The implementation of the National Landscape Strategy for Belize. The impact of the restoration actions will contribute to the adaptation of our country to the effects of climate change, and reduce the emissions caused by the use and change of land use in our country, and in this way contribute to the development and reactivation of our economy with positive social effects. Achieving our Bonn Challenge pledge will contribute to multiple domestic and international targets including obligations under the Paris Agreement and the Convention of Biological Diversity (CBD) among others.

Increased Partnerships – The ministry understands that the fostering of Sustainable Development can only be accomplished through an integrated approach. Henceforth, the Ministry will be continually seeking new opportunities for partnerships and collaborations. Through increased partnerships, the Ministry stands to gain better networking opportunities, greater accessibility to knowledge and increased credibility and accreditation.

Through increased partnerships, the ministry also seeks to enhance private sector engagement. This can be highlighted through key initiatives, including:

- i. Signing of Memorandum of Understandings (MoUs) with wildlife partners. The Forest Department has developed MoUs with various wildlife partners operating in Belize to continue to provide rehabilitation and treatment services to wildlife in Belize.
- ii. Through the support of the Statistical Institute of Belize (SIB) and other national partners, produce a comprehensive assessment of the Sustainable Development Goals indicator framework in Belize by assessing the SDG targets aligned to the strategic objectives PlanBelize Medium Term Development Strategy (PBMTDS) 2021-2025 and identifying the SDG indicators that would be needed to monitor Belize's progress. Through this process, Belize would be able to undertake the prioritization process that was recommended on the GSDS gap analysis report.
- iii. The full implementation of the Initiative for Climate Action Transparency (ICAT 2) project which includes the development of sector level MRV systems for agriculture and transport, the inclusion of the private sector in the national MRV system, the developing of an app for data providers and the provision of capacity building and training for the use of the national MRV system.

Capacity Building – While the Ministry is engaged in various projects, we recognize the importance of Capacity Building to effectively execute these programmes. Capacity Building has a number of benefits from decreased dependence on external expertise and furthering the Ministry's ability to become engaged in new projects and programmes. Being cognizant of all these benefits, one of the main priorities in the immediate future will be capacity building. For external stakeholders as well as staff, several efforts are being planned across the ministry, some including:

- i. Continued professional development of staff under the National Meteorological Service with short-term training courses and formal training for at least one weather forecaster and two agro-climatic assistants.
- ii. The scaling up of National Fire Service personnel training in fire investigation, inspection, urban search and rescue, and Emergency Medical Response thus increasing effective and efficient services to the country.
- iii. Improving the capacity and Quality Assurance/Quality Control of the Department of Environment Wastewater Laboratory.

Implementation of a Policy Planning and Projects Unit – With the implementation of the PPPU, the department intends to enhance its efficiency and transparency. A robust PPPU framework is advantageous in its ability to ensure accountability, increase confidence in potential investors and allows for more informed and calculated decision-making. The implementation of a PPPU will also allow for greater resource mobilization and project success.

Improved Resource Mobilization – Greater resource mobilization is essential for the Ministry to be able to meet its desired goals and to drive the level of societal, environmental and economic impacts the Ministry is able to make. Improved resource mobilization also increases the efficiency and capacity of the Ministry to execute the projects/programmes they are engaged in. On account of these factors, the Ministry is determined to amplify resource mobilization in the immediate future, a few including:

- i. Piloting of sustainable finance mechanisms for biodiversity/protected areas in Belize. This will support the implementation of the Business and investment framework for protected areas and the biodiversity finance plan for Belize.
- ii. Finalizing the development of an active project pipeline in Climate Finance with USD 24M target, led by the Protected Areas Conservation Trust.
- iii. Completion and submission of an Adaptation Fund proposal for “Enhancing the resilience of Belize’s coastal communities to Climate Change impacts” project coordinated by the National Climate Change Office.
- iv. The construction of new fire stations in Placencia and Independence Villages, Punta Gorda, Orange Walk, San Ignacio and a new headquarters building in Belize City.
- v. Plans are also underway for the opening of a fire substation in Hopkins and Hattieville Villages. Expansion efforts will also look at North San Pedro as well as south Caye Caulker.

7.1 Staffing

Table 7.1.1 T Staffing per Department

Department	Staff	Female	Male
National Biodiversity Office	11	8	3
Department of the Environment	25	13	12
Policy Unit	1	1	0
Sustainable Development Unit	3	1	2
Forest Department	99	23	76
National Climate Change Office	13	8	5
Protected Areas Conservation Trust	16	8	8
National Emergency Management Organization	68	17	51
National Meteorological Service	30	16	14
National Fire Service	161	16	145
MRV Unit	4	2	2
Strategic Management Admin Staff, Records & Finance	34	23	11
TOTAL NUMBER OF STAFF:	465		

7.2 Financial Considerations

The total approved budget, for the MSDCCDRM, for the fiscal year 2021/2022 was 23,238,015 BZD of which 16,765,813 BZD was recurrent expenditure, 4,600,939 BZD was Capital II Expenditure, and 1,871,263 BZD was Capital III Expenditure. The requested estimated budgetary allocation for the fiscal year 2022/2023 is 24,167,591 BZD of which 18,407,361 BZD is Recurrent Expenditure, 3,889,000 BZD is Capital II Expenditure and 1,871,230 is Capital III Expenditure.

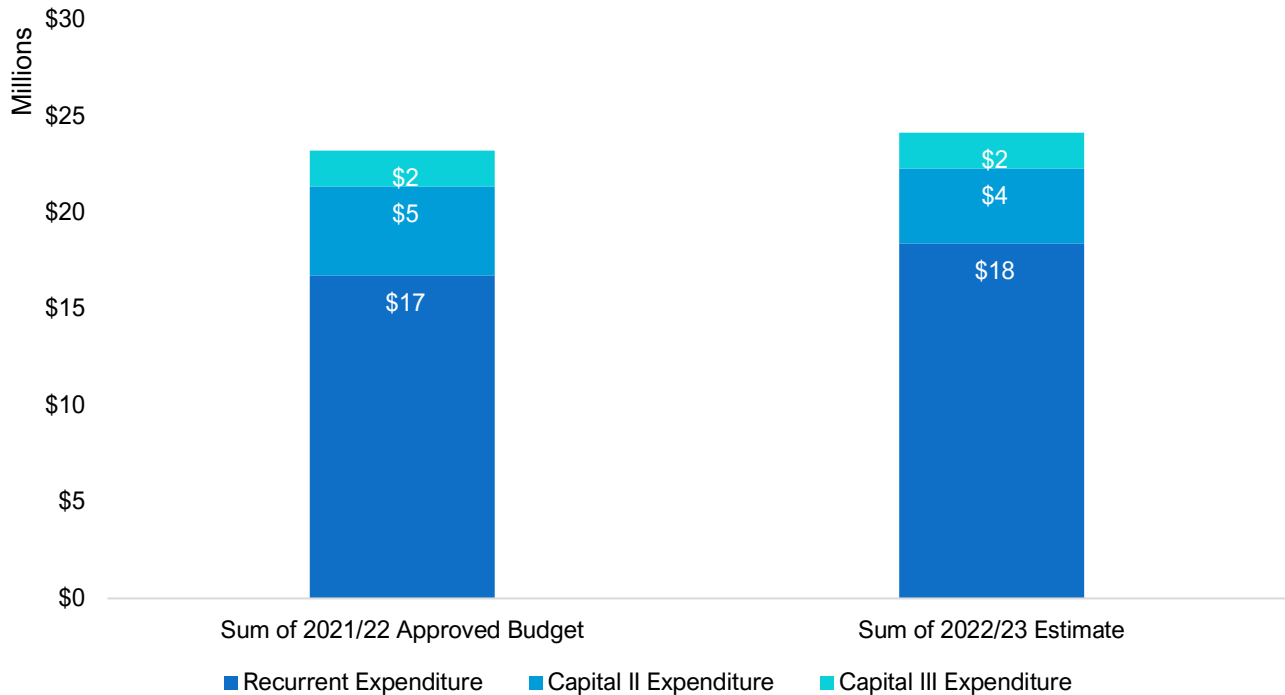


Figure 7.2.1: Programme Expenditure Summary 2021/22 Approved Budget VS 2022/23 Estimate Budget

Table 7.2.1: 2021/22 Approved Budget & 2022/23 Estimated Budget

Programme	2021/22 Approved	2022/23 Estimate
Environmental Management	\$1,249,186	\$1,320,753
<i>Recurrent Expenditure</i>	\$1,056,426	\$1,186,753
<i>Capital II Expenditure</i>	\$192,760	\$134,000
<i>Capital III Expenditure</i>	\$-	\$-
Forestry Resource Management	\$3,276,731	\$4,091,343
<i>Recurrent Expenditure</i>	\$3,051,731	\$3,866,343
<i>Capital II Expenditure</i>	\$225,000	\$225,000
<i>Capital III Expenditure</i>	\$-	\$-
National Biodiversity Unit (NBIO)	\$248,997	\$275,550
<i>Recurrent Expenditure</i>	\$248,997	\$275,550
<i>Capital II Expenditure</i>	\$-	\$-
<i>Capital III Expenditure</i>	\$-	\$-
National Fire Services (NFS)	\$9,589,538	\$8,696,972
<i>Recurrent Expenditure</i>	\$6,789,538	\$6,821,972
<i>Capital II Expenditure</i>	\$2,800,000	\$1,875,000
<i>Capital III Expenditure</i>	\$-	\$-
National Meteorological Services (MET)	\$1,702,012	\$1,658,786
<i>Recurrent Expenditure</i>	\$1,456,004	\$1,503,786
<i>Capital II Expenditure</i>	\$160,000	\$155,000
<i>Capital III Expenditure</i>	\$86,008	\$-
Office of Emergency Management (NEMO)	\$2,291,954	\$2,547,514
<i>Recurrent Expenditure</i>	\$2,061,654	\$2,317,214
<i>Capital II Expenditure</i>	\$230,300	\$230,300
<i>Capital III Expenditure</i>	\$-	\$-
Sustainable Management Administration (SDCC)	\$4,879,597	\$5,576,673
<i>Recurrent Expenditure</i>	\$2,101,463	\$2,435,743
<i>Capital II Expenditure</i>	\$992,879	\$1,269,700
<i>Capital III Expenditure</i>	\$1,785,255	\$1,871,230
Total	\$23,238,015	\$24,167,591

Ministry Budgetary Allocation 2021/2022

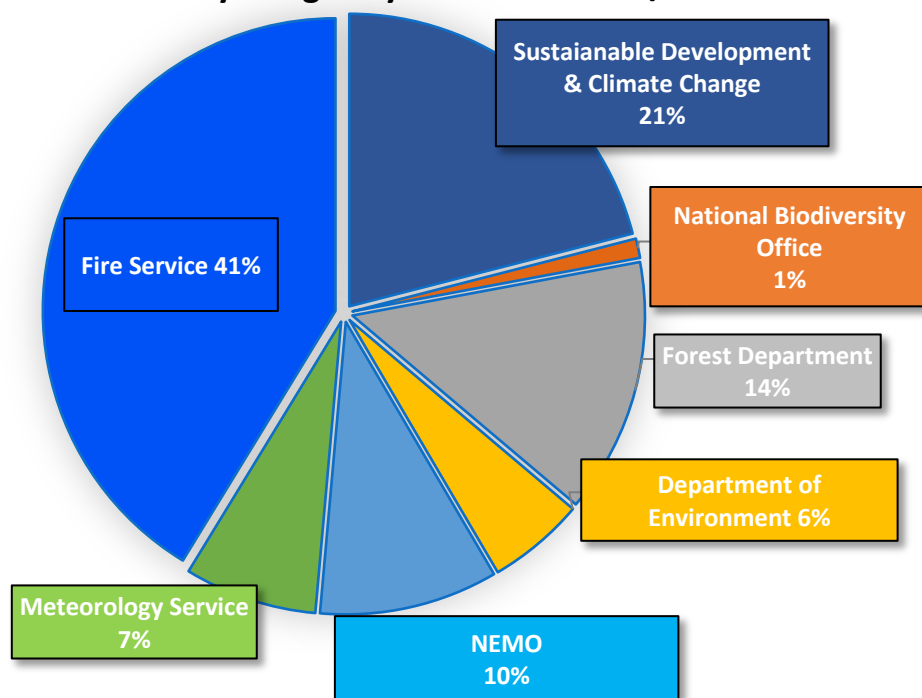


Figure 7.2.3 Approved Budget Per Programme

2021/22 Budget Breakdown

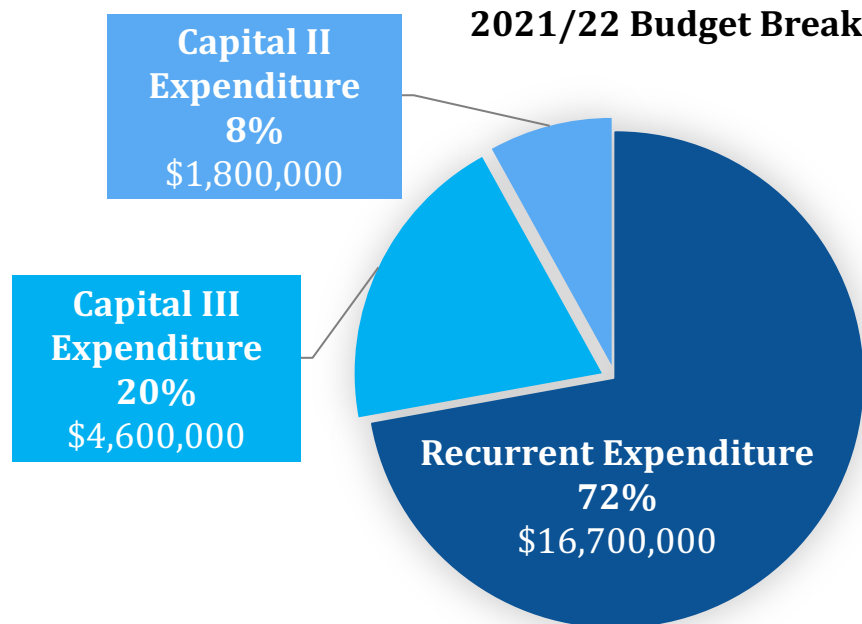


Figure 7.2.4 Percentage of Recurrent Expenditure and Capital Expenditure from Overall Ministry Budget.

8. Conclusion and Recommendations

The MSDCCDRM is proud of its accomplishments thus far. In the past year and a half, the departments within the Ministry have made significant strides and progress toward achieving the GoB's mandate of leading towards sustained growth and prosperity for all Belizeans. While the Ministry is proud of its strengths that lie within each of its departments, it is imperative for the MSDCCDRM to also take a keen look at its weaknesses and identify opportunities that lie ahead toward achieving success. The recommendations proposed, herein, aim to be realistic and plausible initiatives that can strengthen the MSDCCDRM and by extension the overall work of the Government of Belize:

- It has been observed that staffing imbalance is a current issue within the MSDCCDRM. Meaning that there may not be sufficient suitable and qualified personnel within the departments to be able to carry out mandated duties and tasks effectively and efficiently. This staffing imbalance is seen as a major issue as it places additional responsibilities on already overworked staff. An effective methodology for tackling such a problem is the identification of staffing needs and baselines for each department; determining what skill sets and expertise are needed to ensure that all departmental obligations are met.
- Modernization of systems – to increase efficiency, there is a great need to move towards a digital work environment. The following steps can be used to ensure technological advancement within the workplace:
 - o Designing the digital workspace with mobility in mind, taking into consideration the daily tasks that are to be performed by employees.
 - o Ensuring that the main applications and technologies being proposed are simple, intuitive, and user-friendly.
 - o Transitioning to online forms and applications.
 - o Designing a record-keeping system that safeguards employee information but is readily available by management (e.g., Performance appraisals, employee files, open-vote vs permanent established staff, etc.)
- Equal distribution of assets and finances. The performance of any department is dependent on the availability of resources (financial, human, structural). Inadequate allocation of resources hinders the departments from executing their functions, whereas excess resources being pumped into a singular department creates wastage of organizational resources and reduces performance. It is important for the MSDCCDRM to strategically allocate resources based on priorities, needs, outputs and projections.
- Ensuring that Senior and Middle Management are equipped with leadership tactics and techniques. It is important to bear in mind that there is a difference between leadership and management: One leads people and the other manages entities. Therefore, striking a balance between both is important in leading employees to attain the greatest outputs effectively and efficiently. It is also important for managers and

those in leadership roles to understand that their employees are not machines, systems nor projects that can be managed as if they are inanimate objects incapable of thought and emotion.

- Accessibility of those in leadership positions – endorsing an open-door policy where employees feel free to seek advice, attain reassurance and voice concerns to their supervisors. This promotes active communication and is a positive feedback loop for garnering information that can increase work productivity and outputs.

CEOs Concluding Remarks



The past year presented both new and ongoing challenges for the Ministry of Sustainable Development, Climate Change and Disaster Risk Management, including the ever-evolving COVID-19 Pandemic. Nevertheless, we were able to achieve incremental success across the Ministry. This of course, would not be possible without our national and international partners who continue to support our commitments and to whom the Ministry is very grateful.

As we build upon the successes of 2021-2022, the Ministry aims to increase cooperation and strengthen partnerships to foster a more collaborative approach to the work carried out both within the Ministry and with its external stakeholders.

Though we achieved many milestones in this last year, the Ministry is seeking to scale-up its efforts in all areas. Some key priorities include increased international representation to promote recognition of Belize's leadership role in environmental protection and conservation, continued negotiation of Belize's position in respect to the need for financing support for climate change adaptation, and to build national capacities and institutional framework to support an innovative green economic recovery founded in environmentally sustainable development.

As we enter the new fiscal year, the Ministry is committed to continue its embrace of the key principles of PlanBelize where the environment remains a key feature of Belize's economic recovery pathway.

Dr. Kenrick Williams,
Chief Executive Officer.