

SECTION 1: Project Identification

1.1	Project title:	Republic of Mauritius: Preparation of Fourth National Communication under UN Framework Convention on Climate Change (UNFCCC)
1.2	Project number:	SB-012855.05
1.3	Project Type:	Enabling Activity
1.4	Sub-program title:	
	GEF Focal Area/Theme: Strategic programme for GEF VI:	Climate Change Climate Change Mitigation Focal Area Strategy
1.5	UNEP Priority:	Climate Change
1.6	Geographical scope:	National: Republic of Mauritius
1.7	Mode of execution:	National execution
1.8	Project Executing Agency:	Ministry of the Environment, Solid Waste Management and Climate Change Ken Lee Tower, Cnr Barracks & St Georges Streets, Port Louis – REPUBLIC OF MAURITIUS
1.9	Duration of project:	34 months Starting Date: May 2023 Ending Date: December 2025

Cost of project (expressed in US \$):

Origin of Fund	Actual 2020 to first half 2023	Budget Second half 2023	Budget 2024	Budget 2025	TOTAL (US\$)	%
Cost to GEF Trust Fund	10000	148033	151433	190533	500000	62.8
Government-in-Kind Contribution	49368	49367	98734	98734	296203	37.2
Total Cost	59368	197400	250167	289267	796203	100.0

1.11	INSTITUTIONAL CAPACITY ASSESSMENT				
	Ranking & Description:	1	2	3	4

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1.1 Project Summary

This project is being pursued to support the Republic of Mauritius in the preparation of its Fourth National Communications (NC4) to the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC). In May 2019, the GEF approved umbrella programme to support preparation of the NC4 for the Republic of Mauritius.

The main components of the project are as follows:

- (a) Description of National Circumstances and institutional arrangement;
- (b) The National Inventory of the greenhouse gases for the period 1990 to 2021/22 utilizing the latest IPCC guidelines and Good Practice Guidance. Previous National Inventory of GHGs that was carried out under the BUR1 will be updated and revised, if need be;
- (c) Measures to further address climate change mitigation;
- (d) Vulnerability and adaptation assessments of the impacts of climate change for vulnerable sectors, as well as vulnerable groups and the impact of climate change on livelihoods;
- (e) Efforts to further integrate climate change into development planning and the work programmes of national institutions;
- (f) An identification of constraints, gaps and related financial, technical and capacity needs; and,
- (g) Setting up of databases to support future NCs and BURs;
- (h) Compilation and production of the Fourth National Communications of the Republic of Mauritius to the Conference of the Parties.

The first objective of this project is to undertake national stocktaking and stakeholder consultations to review work carried out under previous climate change enabling activities and identify gaps and propose relevant activities to be undertaken within the framework of preparing the NC under the UNFCCC. The second objective is to prepare the NC4 of ROM, as per the approved project implementation plan for the NC4. Consultations with a wide range of relevant stakeholders will ensure that the process of preparing the NC4 is appropriate and to enhance ownership over the main outputs. It will also contribute to design the optimal institutional arrangements and coordination mechanisms for the national communications and facilitate efforts to integrate climate change into relevant national sectoral planning processes. The ROM anticipates to finalize and submit the NC4 to the UNFCCC by 2025. The third objective is to undertake National Stakeholders' engagement and institutional arrangement for preparation of subsequent national communication. The NC4 project will be executed by Department of Climate Change under the Ministry of Environment, Solid Waste Management and Climate Change.

1.2 Acronyms and Abbreviations

MINISTRIES

MAIFS	Ministry of Agro-Industry and Food Security
MBEMRFS	Ministry of Blue Economy, Marine Resources, Fisheries and Shipping
MCCP	Ministry of Commerce and Consumer Protection
METEST	Ministry of Education, Tertiary Education, Science and Technology
MEPU	Ministry of Energy and Public Utilities
MESWMCC	Ministry of Environment, Solid Waste Management and Climate Change
MFEPD	Ministry of Finance, Economic Planning and Development
MGEFW	Ministry of Gender Equality and Family Welfare
MHLUP	Ministry of Housing and Land Use Planning
MHW	Ministry of Health and Wellness
MIDSMEC	Ministry of Industrial Development, SMEs and Cooperatives
MLTLR	Ministry of Land Transport and Light Rail
MLGDRM	Ministry of Local Government and Disaster Risk Management
MNICD	Ministry of National Infrastructure and Community Development
MSISSNS	Ministry of Social Integration, Social Security and National Solidarity
MROITI	Ministry for Rodrigues, Outer Islands & Territorial Integrity
MT	Ministry of Tourism

AF	Adaptation Fund	MMS	Mauritius Meteorological Services
AAP	Africa Adaptation Programme	MWF	Mauritius Wildlife Foundation
AFOLU	Agriculture, Forestry and Other Land Use	MRIC	Mauritius Research innovation Council
AHRIM	Association of Hoteliers and Restaurants in Mauritius	MRV	Monitoring Reporting and Verification
BUR	Biennial Update Report	NAMA	Nationally Appropriate Mitigation Action
BUR-1	First Biennial Update Report	NC4	Fourth National Communication
CC	Climate Change	NCCAPF	National Climate Change Adaptation Policy Framework
CCA	Climate Change Adaptation	NDC	Nationally Determined Contribution
CC Act	Climate Change Act	NDRRMC	National Disaster Risk Reduction and Management Centre
CCC	Climate Change Committee	NEL	National Environmental Laboratory
CCIC	Climate Change Information Centre	NGOs	Non-Governmental Organisations
CCM	Climate Change Mitigation	NIDC	National Information Data Centre
CDM	Clean Development Mechanism	NIR	National Inventory Report
CDM	Clean Development Mechanism	NPC	National Project Coordinator
CEB	Central Electricity Board	NPCS	National Parks and Conservation Services
CO2	Carbon Dioxide	PIP	Project Implementation Plan
CO2e	Carbon Dioxide equivalent	PMU	Project Management Unit
COP	Conference of Parties	PSC	Project Steering Committee
DCC	Department of Climate Change	PTC	Project Technical Committee
DRR	Disaster Risk Reduction	RDA	Road Development Authority
EEMO	Energy Efficiency Management Office	ROM	Republic of Mauritius
ETF	Enhanced transparency framework	RRA	Rodrigues Regional Assembly
FAREI	Food and Agricultural Research and Extension Institute	SDD	Sustainable Development Division
GDP	Gross Domestic Product	SDG	Sustainable Development Goals
GEmF	Grid Emission Factor	SIDS	Small Island Developing States
GEF	Global Environment Facility	SM	Statistics Mauritius
GHG	Greenhouse Gas	SME	Small and Medium Enterprise
GIS	Geographical Information System	SNC	Second National Communication
GOM	Government of Mauritius	STC	State Trading Corporation
ICT	Information and Communications Technology	SWM	Solid Waste Management
IPCC	Intergovernmental Panel on Climate Change	tCO2	tonne Carbon Dioxide
IPPs	Independent Power Producers	TNA	Technology Needs Assessment
LDA	Land Drainage Authority	TNC	Third National Communication
LRT	Light Rail Transport	TOR	Terms of Reference
LTES	Long-Term Energy Strategy 2009-2025	TWG	Technical Working Group
LULUCF	Land use, land-use change, and forestry	UNDP	United Nations Development Programme
MARENA	Mauritius Renewable Energy Agency	UNEP	United Nations Environment Programme
MCA	Mauritius Chamber of Agriculture	UNFCCC	United Nations Framework Convention on Climate Change
MCIA	Mauritius Cane Industry Authority	URA	Utility Regulatory Authority
MCIC	Mauritius Chamber of Industry and Commerce	VA&A	Vulnerability Assessment and Adaptation
MCIA	Mauritius Cane Industry Authority		
MCFIL	Mauritius Chemical and Fertilizer Industry Limited		
MEXA	Mauritius Export Association		

SECTION 2: Project Background and Context

a. Geography, Climate and Population

2. Republic of Mauritius (ROM) constitute a group of islands located in the Indian Ocean comprising of Mauritius (the mainland), Rodrigues, Agalega, CargadosCarajos (also known as St Brandon), Tromelin, and the Chagos Archipelago which includes Diego Garcia and other islands. Mauritius and Rodrigues are located at about 2000 km off the east coast of Africa in the South West Indian Ocean; these islands form part of the three Mascarene islands (the third one being Reunion island). Agalega, Tromelin, CargadosCarajos and the Chagos Archipelago are all located further north. Although the total land area of ROM is about 2040 km² with mainland Mauritius occupying about 1865 km², Rodrigues about 108 km², and Saint Brandon/Agalega about 71.2 km², its marine Exclusive Economic Zone (EEZ) extends over 2.3 million km² (Figure 1 (MESWMCC, 2016) within the latitudes 5-19 degrees South and longitudes 55-75 degrees East.

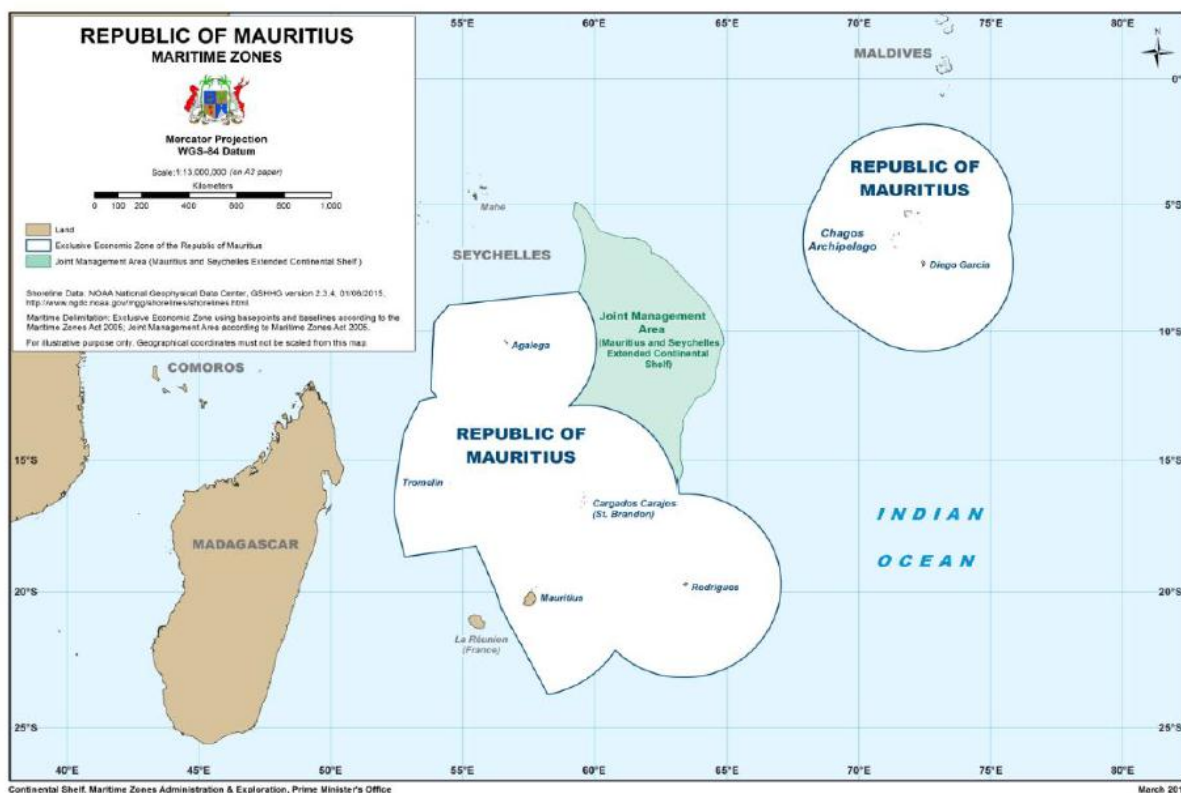


Figure 1: Maritime Zone map of the Republic of Mauritius

(Source: Continental Shelf, Maritime Zones Administration & Exploration)

3. As at 31 December 2020, the resident population of the Republic of Mauritius was estimated at 1,266,030 comprising 626,156 males and 639,874 females. The breakdown of the population was estimated at 1,221,759 for Mauritius, 43,997 for Rodrigues and 274 for Agalega and St Brandon. As at the end of 2020, the population density is estimated at 620 persons/km² for the ROM. The dependency ratio, that is the child population under 15 years of age and the elderly population aged 65 years and

above per 1,000 population aged 15-64 years, was 409.0 in 2020. Improved health system has led to a progressive increase in the life expectancy at birth of the population over the past 55 years, attaining 71.07 years for males and 77.56 years for females in 2018. Some vital populations statistics for 2020 (Mauritius and Rodrigues):

- Crude birth rate*: 10.6;
- Crude death rate*: 8.7;
- Infant mortality rate: 14.9;
- Stillbirth rate: 10.4;
- Crude marriage rate*: 10.9
- Crude divorce rate*: 3.4 (2019)

**per 1,000 mid-year population*

4. The annual growth rate of ROM's population is, however, < 0.05%. Consequently, ROM will likely be facing a population ageing problem in the forthcoming decades, due to the number of births decreasing and the life expectancy increasing. The population aged 60 years and above represented 5.9% in 1972 and will likely represent about one third of the total population by about 2040 according to projections (SM, 2020).

Table II.1: Vital Population Statistics

	2000	2005	2010	2015	2020
Resident Population	1193735	1211302	1233000	1262862	1266030
Pop Density (persons/ km2)	578	607	604	619	631
Growth rate (%)	1.1	0.7	0.4	0.1	0.04%
Mauritius	1157789	1190361	1192300	1220530	1221759
Rodrigues	35776	36994	40400	42058	43997
Agalega& St Brandon	170	289	300	274	274
Av life expectancy for males (yrs)	68.2	68.69	69.5	71.1	72.6
Av life expectancy for females (yrs)	75.3	75.40	76.7	77.7	79.7

Climate and Climate Change Impacts

5. ROM benefits from a mild tropical to tropical climate throughout the year, with a warm humid summer (November to April) and a relatively cooler dry winter (June to September) with May and October being the transitional periods. Table II.2 displays the climate, temperature and precipitation profiles for all the islands to be covered in NC4.

Table II.2: Typical climate, temperature and precipitation profiles* (source: MMS, 2022)

	Mauritius	Rodrigues	Agalega	CargadosCarajos
Climate	mild tropical	mild tropical	tropical	tropical
Mean Winter Temperature (°C)	21.9	23.3	26.6	25.1
Mean Summer Temperature (°C)	25.6	26.5	27.8	28.2
Mean Maximum Summer Temperature (°C)	29.4	29.4	31.4	30.8
Mean Minimum Winter Temperature (°C)	18.1	20.4	23.6	22.9
LT Annual Rainfall (mm) (1971-2000)	2010	1195	1583	938
LT Annual Rainfall (mm) (1981-2010)	1999	1266	1687	996
LT Annual Rainfall (mm) (1991-2020)	2019	1279	1771	972
Wettest Months	Feb-Mar	Feb-Mar	Jan-Feb	Feb
Driest Months	Oct	Sep-Oct	Sep	Sep-Oct

* For mean temperatures: period 1991 to 2020 used; Summer: November to April; Winter: May to October

6. Climate change is adversely affecting the natural and ecological system, and the physical and human environment. Mauritius is not spared by climate change despite ROM's contribution to global greenhouse gas emissions being relatively insignificant, representing about 0.015% of the global emissions (INDC, 2015).
7. ROM is highly vulnerable to climate change effects such as intense cyclones, abnormal tidal surges, prolonged droughts, flash floods, increase of sea surface temperature, and sea level rise. Algal blooms due to high Sea Surface Temperature and nutrient rich seepage into lagoons are known to be the cause of mass mortality of corals and fish. More intense rainfall over the ocean is expected to cause increased sedimentation of the lagoons thus smothering the corals.
8. Some of the pertinent trends that have been observed for ROM (where applicable, these trends will be updated during the NC4 project).
9. **Temperature:**
A definite warming trend in recorded temperatures has been observed, in all islands since the pre-industrial periods (Table II.3).

Table II.3: Temperature Trend of ROM's islands (source: MMS)

	Mauritius	Rodrigues	Agalega	Cargados Carajos
Average temperature rise (°C per decade)	0.19	0.20	0.18	0.23
Increase in temperature compared to the 1961-1990 LTM (°C)	0.74 - 1.2	0.5 - 1.0	0.62	0.5 - 1.0

Mauritius

- The mean annual temperature has warmed by about 1.39°C in the last 70 years (1951-2020) compared to the 1961-1990 climatological normal, i.e. average temperature at all stations is rising at the rate of about 0.19 °C per decade;
- An increase in the annual number of hot days and warm nights has been observed;
- Night temperatures have warmed faster than day temperatures, i.e., an increase of 1.47°C and 1.35°C respectively.
- An increase in the minimum temperatures (i.e. winters are getting milder) has been observed;
- Projected temperature rise up to 2°C by 2061 - 2070.
- Projections of Mauritius Meteorological Service following BRIO Project the change is 3.14-3.64°C for SSP5-8.5] by 2100 (Updated National Climate Change Adaptation Policy Framework, 2021)

Rodrigues

- The mean annual temperature has warmed by about 1.41°C in the last 70 years (1951-2020), i.e. the average temperature at all stations is rising at the rate of about 0.20 °C per decade.
- Contrary to Mauritius, day temperatures have warmed faster than night temperatures with an increase of 1.49°C and 1.32°C respectively.

Agalega

- The mean annual temperature has warmed by 1.28°C, i.e. at the rate 0.18 °C per decade.
- The daytime temperatures show faster warming than nighttime temperatures.

St Brandon

- The mean annual temperature has warmed by 1.62°C, i.e. at the rate 0.23 °C per decade.
- The daytime temperatures show faster warming than nighttime temperatures.

10. Rainfall:

Similar to global trends, the warming atmosphere has, without any doubt, impacted the hydrological cycle over the Southwest Indian Ocean.

Mauritius

- Analysis of long-term time series over the past 70 years (1951-2020) show a decreasing trend in annual rainfall over Mauritius, a decrease of 104 mm (1.4 mm/year) in the annual rainfall over Mauritius.
- Trend in decadal rainfall shows a decrease of 72 mm per decade.
- Compared to the decade 1951-1960 rainfall has decreased by 7.7% in the last decade 2011-2020.
- Increase in number of consecutive **dry days** and decrease in number of **rainy days**
- The frequency of heavy rainfall events has increased. *Flash floods are increasingly becoming recurrent in the months of February and March (since the early 2010s). This impacts more importantly on the agricultural sector.*
- The onset of summer rains has thus progressively shifted from November in the 60s and 70s summer to late December, sometimes over-spilling in January. *This shift in the onset of summer rain is highly significant as it not only translates into increasing pressures on the water sector to meet the increasing demands of the agricultural, tourism, industrial and domestic sectors but also to increase storage capacity to cater for longer periods of dry spells. Water shortage also limits the use of water for hydroelectric generation.*
- While prior to 2000, Mauritius relied essentially on the summer rains derived from cyclones to replenish the country's reservoir, these days, heavy rainfall events, unrelated to storms, are fulfilling this task.

Rodrigues

- The trend at Rodrigues shows a decrease of 234 mm is observed during the last 60 years (1961-2020).

Agalega

- At Agalega, an increase in rainfall is observed during the last 70 years (1951-2020) and this amounts to 207 mm.

St Brandon

- At St Brandon, an increase in rainfall is observed during the last 70 years (1951-2020) and this amounts to 74 mm respectively.

11. Extreme Events:

- Over the last two decades a significant increase in the frequency and intensity of natural extreme events have been observed, with noticeable effects of larger inter-annual variations in oceanic and atmospheric conditions, and decreasing rainfall and enhanced erosion. Geographical and topographical characteristics of the island limit its capacity to adapt to and

mitigate climate change and sea level rise impacts (COM and EC, 2008). Mauritius is expected to experience around USD 91 million in direct losses annually from winds, flooding, and storm surge associated with tropical cyclones

- Due to its location in the southwestern Indian Ocean, Mauritius is also exposed to **tropical storms**. Situated at the tail of the Indian Ocean cyclone belt, the country's exposure to cyclones has been relatively limited so far. Fewer, but explosive intensification rate of tropical storms. The mean number of cyclones with intensity higher than tropical cyclones (gusts > 165 km/h) has increased from 3.9 in the period 1981-2020 to 4.7 in the period 1991-2020. Of the few storms normally observed in the south Indian Ocean, fortunately, rarely one comes within 100 km of Mauritius. Cyclones and associated hazards such as torrential rains and flash floods regularly affect the country resulting in losses. In 2002, Cyclone Dina caused 50 million EUR losses in the sugar cane production. In 2016, Cyclone Fantala resulted in a call for the evacuation of the South Island of Agalega. In January 2019, Cyclone Berguita caused significant damages and power outages to the main island.
- Because of short duration heavy rainfall or cyclones and torrential rains, **floods and flash floods** are climatic hazards to which the islands of Mauritius are of common occurrence. During the summer (November 2020 to April 2021), four occasions of heavy rainfall/torrential rain warning were issued as well as three events of flash flood. Increase in heavy rainfall events leading to numerous flash floods during the summer months of February and March. According to the country's disaster risk profile (DRP Mauritius, 2016), flooding is the second-largest risk after cyclones, causing 20% of direct economic losses associated with disasters and will experience on average around 22 million USD yearly direct losses from flooding. In 2002, 200 flood prone areas were identified compared to 450 in 2019 (DRM: A Capacity Diagnosis, 2020). It is also estimated that nearly 60% of the direct losses from flooding are from the residential sector and 20% from the commercial sector. (DRM: A Capacity Diagnosis, 2020)- Cadri Partnership. Over the last decade, it has been observed that the frequency of flash floods has been on the rise, even resulting in fatalities and damage, in particular, the events of 26th March 2008, 30th March 2013 and 10th February 2016 which are still vivid in the memories of affected citizens. The risk of flash floods has increased significantly with urbanization and development causing the disruption of the natural drainage system. In order to build resilience, the construction and upgrading of some 1,500 drain projects across the island over the next three years, starting with high-risk flood-prone areas, have been planned in the Government budget 2021-2022.
- Mauritius has several areas identified as high-risk for **landslides**, with incidences over the past years having led to the destruction of housing and infrastructure. These disasters are typically the result of increased precipitation patterns in shorter periods of time, coupled with other factors such as the reduction or the lack of vegetation cover and risky constructions on sloppy areas. The risk areas are Chitrakoot, QuatreSoeurs, Vallée Pitot, La Butte, Chamarel, and Corps de Garde ridge. The country is experiencing an increasing number of cases of landslide

occurrences, which are worsened by deforestation, and bad land use planning e.g. construction on slopes, close to rivers, etc. While in the late nineties there was only one dangerous site in Mauritius requiring strict precautionary measures, this number rose to 22 in 2005. As per information collected in March 2019, from the 12 Local Authorities, the National Development Unit (NDU) and the Road Development Authority (RDA), some 480 sites have been identified across the island as being affected at varying degree by water accumulation and flooding. Out of these 480 identified sites, 56 sites (which include laval tunnels in Palma, and Curepipe, Riviere des Creoles, Batellage, Olivia and Kewal Nagar, and Montagne Signaux) are considered to be life threatening/critical and may cause serious disruption to socio-economic activities. These have to be addressed as a matter of urgency.

- With climate change, there is an increase in frequency of periods of dry spells and **droughts**. The variability of rainfall trends caused an increase in the frequency of dry years after the 1990s with severe spells affecting the country in 1999, 2009, and 2011. For instance, the 1999 drought caused a loss of 160 million USD to the sugar cane sector, as compared to the 1998 revenue. Water crisis and resulting restrictions on water supply for irrigation caused shortages of vegetables for local consumption in 2011. Overall, droughts accounted for 96.8% of combined economic losses of nationally reported losses between 1990 and 2014. As compared to the island of Mauritius, Rodrigues is more exposed to longer periods of water scarcity. These climate change effects may lead to water scarcity, negatively impact agricultural productivity, and reduce terrestrial and marine biodiversity. Extreme weather events and rising sea levels are also likely to affect infrastructure and tourism. Apart from vast socioeconomic impacts, the health of the population might be put at risk by climate change effects due to an increase in frequency of vector-borne diseases, thereby adversely affecting people's lives and livelihoods, ecosystem services and the economy. Research shows that Mauritius may become a water-scarce region by 2030. Projections indicate that the utilizable water resources may decrease by up to 13% by 2050 if no action is taken to restore catchment areas.

12. Mean Sea Level Rise

The IPCC report (IPCC, 2021) concluded that the global mean sea level continues to rise across most of the region across the globe. Similarly, the trend is observed in sea level in the Republic of Mauritius. An increase of 5 cm in the relative sea level may translate into an increase of one metre during storm surges. As a SIDS, it is essential for Mauritius to take this into consideration and undertake significant adaptation measures to reduce its vulnerability. From a global perspective, the mean sea level has risen by a rate of about 1.7 mm/yr between 1901 to 2010 and of about 3.2 mm for period 1993 to 2010 (Stocker et al, 2013).

Mauritius

- Church *et al.*(2006) reported a rise of 1.5 mm/yr for the period 1950-2001. The observed sea level in Mauritius (based on the analysis of tide data from Port Louis tide gauge) shows a mean rise of 3.8 mm/yr for the period 1987 to 2014 (Ragoonaden *et al.*, 2017) and 8 mm/yr for the period 2011 to 2020; thus displaying an accelerated sea level rise. The variation in the observed rate of sea level rise for Mauritius as compared with the global mean sea level rise is attributed to the fluctuations in ocean circulation (Stocker et al, 2013).
- Compared to the decade 1991-2000 the mean sea level has increased by 11.9 cm during the last decade 2011-2020.
- Sea level rise is projected to be of the order of 49 cm by 2100 (Updated National Climate Change Adaptation Policy Framework, 2021)

Rodrigues

- Church *et al.*(2006) reported a rise of 1.3 mm/yr based on reconstructed tide gauge data and Topex/Poseidon altimeter for the period 1950-2001. The observed sea level in Rodrigues (based on the analysis of tide data from Port Mathurin tide gauge) shows a mean rise of 6.5mm/yr for the period 1987 to 2014 (Ragoonaden *et al.*, 2017); that is, displaying an accelerated sea level rise.

13. Other Climate Change impacts observed include heavy swells (very frequent in winter) and acidification of the ocean. (*cf. Storm surges are experienced whenever a tropical storm is evolving in the vicinity of the island*).

b. Economy and Growth Sectors

14. Mauritius was rated an 'upper middle income' status with total GDP of \$31.705 billion and GDP per capita of \$25,029 (2019). The main **growth sectors** of the economy were tourism, information and communications technology (ICT) and the financial and insurance sectors. Mauritius is holding the 141 position by nominal GDP. Its national debt in 2020 was (10,935 millions of dollars), (96.88% debt-to-GDP ratio) and its public debt per capita is \$8,640 dollars per inhabitant.

The real GDP of Mauritius grew at an average of 4.7 percent from 1968 to 2017, enabling the country to achieve middle-income status in less than 50 years. In 2019, Mauritius' GDP was 14 billion USD and its gross national income per capita surpassed 12,900 USD. In July 2020, the World Bank classified Mauritius as a high-income country based on 2019 data, but most analysts forecasted that Mauritius would likely revert below high-income status in 2021 due to the effects of the Covid-19 pandemic. Statistics Mauritius estimated significant contractions in the 2020 growth rate in sectors such as accommodation and food services (-67.4 percent), construction (-25.4 percent), manufacturing (-20.1 percent), and commerce (-12 percent). The IMF forecasted that the country's economy would rebound with a 9.9

percent growth in 2021, but a second lockdown that began in March 2021 has changed that estimate. The economy of Mauritius grew 6.2 percent from a year earlier in the fourth quarter of 2021, quickening from a downwardly revised 4.6 percent growth in the previous three-month period. It was the third consecutive quarter of economic expansion, after a pandemic-induced recession. The main driver of growth was the tourism-related sector (157.1 percent vs 103.9 percent in Q3), following the easing of some travel restrictions. Positive contributions also came from mining & quarrying (22.4% after showing no growth); construction (9.1% vs 12.9%); information & communication (7.3% vs 7.2%) and finance & insurance (5.7% vs 4.5%). Considering the full year of 2021, the GDP advanced by 4%, compared with a 14.9% plunge in 2020.

Development Challenges

15. The main challenges of Mauritius include an increase in competitiveness through greater regional integration, a stronger environment for innovation, more inclusive growth by addressing a scarcity of skilled human resources, and increasing resilience to natural disasters and climate change. Reforms should aim at diversifying the economy to deepen value chains and reorient exports toward emerging markets (WB, 2016). The Government is presently evaluating the likely impacts on the national economy, of the announced departure of the UK from the EU (Brexit), which has already resulted in a depreciation of the GB Pound by about 16 to 20%.

16. The annual Gross Domestic Product (GDP) at market prices were 3.8%, 3.0% and -14.9% for the year 2018, 2019 and 2020. Based on information gathered on key sectors of the economy, performance observed in the first nine months of 2021 and available indicators for the last quarter of 2021, both GDP at market prices and GVA at basic prices would grow by 4.8% in 2021 instead of 5.4% as forecasted in June 2021. It is worth noting that these figures have been worked out amid uncertainties around the economic impact of the new Omicron COVID-19 variant.
 - In 2020, the share of agriculture in Mauritius' gross domestic product was 3.41 percent, industry contributed approximately 16.63 % and the services sector contributed about 68.24%.
 - With more than 50 years of industrialisation, the manufacturing industry remains an engine of growth with a GDP contribution of 12.1% (2020).
 - In 2020, travel and tourism had a contribution of 8.7 percent to Gross Domestic Product (GDP) in Mauritius. The share declined sharply from 19.5 percent in 2019, reflecting the impact of the coronavirus (COVID-19) pandemic in the sector.
 - The GDP from construction sector in Mauritius increased to 7338 MUR Million in the fourth quarter of 2021 from 6612 MUR Million in the third quarter of 2021. In the long-term, the Mauritius GDP is projected to trend around 8260.00 MUR Million in 2023 and 8631.00 MUR Million in 2024, according to econometric models according to tradingeconomics.com/.
 - Financial and Insurance activities contributed to 11.8%, 13.0% and 12.3% of GDP in 2019, 2020 and 2021 respectively.

- The ICT/BPO industry represents a key driver of the Mauritian economy with a GDP contribution of 7.4% for 2021 and employing around 30,000 people.
- The Mauritius blue economy is currently represented by coastal tourism, fishing, seafood processing and seaport activities that are also considered as traditional ocean activities. These activities excluding coastal tourism represent 10% of the Growth Domestic Product (GDP) and employ around 7,000 people. The Government aims at increasing the share of GDP of the blue economy to 20% in the medium term. The strategy would be to work on the consolidation of traditional activities but also develop emerging ones such as aquaculture, maritime services, marine biotechnology and oil and gas exploration. These sectors will have varying demands for energy, which is the main contributor to Greenhouse Gas (GHG) emissions for Mauritius.

17. In August 2015, the Prime Minister, in his **Vision 2030** speech, indicated that besides the recent measures taken by Government to redress the economy, the 4 key focus areas were:

- addressing unemployment,
- alleviating / eradicating poverty,
- new air access policies and
- sustainable development and innovation.

The economic model chosen for the development of our country will be centered on a number of core areas to fundamentally transform the economy, with a potential of creating 100,000 new direct and indirect jobs within the coming five years.

Key features are:

- a revamped and dynamic manufacturing base with a focus on promoting high end, precision driven and technology enabled manufacturing,
- leveraging on the largest asset base, the Exclusive Maritime Economic Zone to develop the Ocean industry, and promote fishing and seafood processing facilities, bunkering, port and tourism industries,
- embrace higher value-added services and activities in the Financial Services Industry, the Innovation, Technology and Communication sector,
- transform Mauritius into a SMART island,
- Life Sciences and Research and Development,
- Higher education sector, and
- Fashion, Entertainment and Cinema industry.

18. In terms of the human development index (HDI) of Mauritius, which is the index used by the United Nations to measure the progress of a country, was 0.804 points in 2019, leaving it in 66th place in the table of 189 countries published.

c. Environmental Management

19. The main institution responsible for environmental management in Mauritius is the Ministry of Environment, Solid Waste Management and Climate Change. Institutional changes in 2010 included the setting up of a Sustainable Development Division and the creation of a Climate Change Division to enhance the country's resilience to climate change in response to the challenges faced by the country. The latter has transited to Department of Climate Change with the coming into force of the 2020 CC Act. In addition, a range of activities related to the environment were carried out by several other ministries (PAGE, 2017).
20. A **National Climate Change Adaptation Policy Framework (NCCAPF)** was formulated in 2012, to mainstream climate change adaptation into core development policies, strategies and plans for Mauritius, a **Disaster Risk Reduction Strategic Framework and Action Plan** was prepared in 2013 as part of the Africa Adaptation Program (AAP) and National Disaster Risk Reduction and Management Policy, Strategic Framework and Action Plan 2015-2030. In the **Technology Needs Assessments (TNA)** prepared in 2012, Technology Action Plans were developed for priority adaptation and mitigation technologies.
21. The updated NCCAPF (2021) focuses on the potential of nature-based solutions (NbS) for adaptation, as well as green job creation, managing thus the impacts of the COVID-19 pandemic, while addressing some of the most pressing issues regarding biodiversity and sustainable resource management. In alignment with the National Biodiversity Strategy and Action Plan 2017-2025, the updated NCCPAF promotes Ecosystem-based Adaptation (EbA) which harnesses biodiversity and ecosystem services to reduce vulnerability and build resilience to climate change.
22. ROM submitted its Initial National Communication (**INC**) in 1999, the Second National Communication (**SNC**) in 2010, the Third National Communication (**TNC**) in 2016 and the first **BUR** in 2021.
23. The **Intended Nationally Determined Contributions (INDC) report** was submitted to the UNFCCC Secretariat in September 2015 ahead of the 21st Conference of the Parties (COP 21). ROM is ranked 14th as a country with the highest disaster risk and 7th on the list of countries most exposed to natural hazard (**World Risk Report**, 2016). According to the World Risk Report 2021, we are still classified as a country with a HIGH risk index. Out of a total of 181 countries, Mauritius is now ranked as the 51st country with the highest disaster risk as compared to 53rd in year 2020. The INDC is in line with the Vision 2030 statement by the Prime Minister, that confirms the commitment of the Government to adopt "*a responsible and environmentally sustainable policy regarding energy production, waste management and physical infrastructural development*".

The INDC was complemented by the NDC Action Plan prepared in February 2016. Mauritius' commitments to combat climate change are ambitious given its national circumstances. This ambition is reflected in the mitigation and adaptation strategies and measures in which the Government of Mauritius has committed since the ratification of the Paris Agreement, and will continue to be engaged in. Mauritius initially targeted a 30% reduction in GHG emissions by 2030. Thirteen project options were identified for adaptation and 10 for mitigation. The financial resource requirements are estimated at USD 5.5 billion, with USD 4 billion allocated for adaptation and the remaining USD 1.5 billion for mitigation activities during the period 2015-2030.

24. In its updated NDC (2021), Mauritius raised ambition to reduce greenhouse gas emissions by 40% in 2030 compared to business-as-usual, instead of the initial NDC target of 30%. Mauritius aims to achieve 60% of energy production from green sources by 2030, phasing out the use of coal and increasing energy efficiency by 10% based on a 2019 baseline. Domestic sources of public and private finance will fund 35% of the costs of climate action.
25. In order to make sure Nationally Appropriate Mitigation Action (NAMA) and their respective targets are monitored, there is a need for climate change stakeholders to measure, report and verify data in a centralised, structured and reliable manner. The NDC Registry is aimed at monitoring and reporting the implementation and achievement of the NDCs. The Registry comprises a Measurement, Reporting and Verification (MRV) Framework, mitigation policies and measures, actions and plans. These are further componentised by mitigation and adaptation actions, related to implementing and achieving the NDCs.
26. The Climate Change Act (CC Act), gazetted on 28 November 2020, entered into force on 22 April 2021. Under the Act, the Department of Climate Change is responsible to coordinate the implementation of relevant commitments to ensure compliance with the international climate change agreements. An Inter-Ministerial Council on Climate Change is provided to set national objectives, goals and targets with a view to make Mauritius a climate resilient and low emission country.

A Climate Change Committee has also been instilled to enable a multi-stakeholder participation for the preparation of the national climate change strategies and action plans for mitigation and adaptation. A Rodrigues Climate Change Committee (RCCC) will have similar functions as the Mauritius Climate Change Committee (MCCC) and is envisaged to liaise with the Department of Climate Change (NIR 2016).

The key tasks of the CCC would be to plan and conduct all coordination and consultation activities, identify all relevant institutions and teams, and establish the formal working arrangements, assign responsibilities for all components of the NCs/BTRs, appoint lead for each section, and establish a formal approval process, and prepare a schedule for the preparation of the NC/BTR, with specific milestones

and deliverables dates, and monitor accordingly. Other CCC responsibilities related to the NC preparation would include:

- Identify constraints and gaps, and related financial, technical and capacity building needs, and nature of support needed and received;
- Regular updates to management committees and working groups about progress and emerging issues;
- Develop and implement Quality Assurance and Quality Control strategies;
- Manage overall budget;
- Compile all sections of the NC into a cohesive document;
- Document all activity data and the methods used, and maintain an archiving system to ensure institutional memory;
- Collect and maintain statistical records; and,
- Evaluation exercise to identify key lessons learned.

27. In light of the principle of common but differentiated responsibilities and respective capabilities and in view of different national circumstances, and the principles of flexibility as inscribed in the Paris Agreement and decision 18/CMA.1, Mauritius reporting and transparency will no doubt improve over time. In this context, Mauritius NDC may be subject to future improvements, corrections, recalculations and/or modifications. Following the submission of an update on the NDC, Mauritius intends to develop an Action Plan including details about policies and measures on mitigation and adaptation (NDC, Oct 2021).

28. Concrete action accompanied by adequate and predictable funding is, therefore, absolutely essential. At the Glasgow's World Leaders Summit in November 2021, the Prime Minister stated that the ROM will fulfill its share by taking actions that will contribute towards the following:

- Reducing gas emissions by 40% by 2030;
- Achieving 60% of green energy in our energy mix by 2030;
- Phasing out coal in electricity generation before 2030;
- Promoting a circular economy involving 70% of waste from landfills by 2030;
- Encouraging the use of electric vehicles; and
- Promoting smart agriculture and island wide tree planting programmes.

These actions, along with several others, will pave the way for Mauritius to become a climate resilient and low emission country.

Land Use Land Cover Maps

29. It is unfortunate that there does not exist a land use land cover map which is regularly updated; the previous NCs making reference to a 2006 land use map. Aerial imageries of Mauritius, Rodrigues and

Agalega can be readily used to produce such maps with very high resolution which can be used on GIS platforms for various assessment, scenario building and decision-making. It is strongly suggested that the Ministry of Housing and Land Use Planning be assigned to produce such 'validated' maps that can be distributed to all well before the start of NC4.

30. **Amongst others, NC4 must thoroughly quantify land use;**

- forest areas, which amount to about 25% of total land area, due to demographic and development pressures;
- sugarcane cultivation;
- conversion of agricultural land to non-agricultural uses such as property development;
- non-sugar crops including vegetables, fruits, flowers, tea and others;
- reserves, etc.

Greenhouse Gas Emissions

31. Mauritius' net greenhouse gas (GHG) emissions represent less than 0.01% of global GHG emissions.
32. Reporting of GHG emissions must be carried out for **each island** of ROM (except for the claimed territories).
33. The total amount of GHG emissions (excluding the LULUCF sector) increased by 73.7% from 2000 to 2016 (3,000.34 Gg CO₂eq to 5,211.06 Gg CO₂eq) and the amount of net GHG emissions increased by 92.0% from 2000 to 2016 (2,542.89 Gg CO₂eq to 4,881.36 Gg CO₂eq) (BUR1, 2021).
34. According to BUR1 (BUR1, 2021), considering the total emissions excluding LULUCF sector, the biggest emitter is the Energy sector, which represents the 80.26% of the total emissions of the country in 2016 [4,182.62 Gigagram carbon dioxide equivalent (Gg CO₂eq)], followed by the Waste sector with 10.73% (559.18 Gg CO₂eq) of the emissions, the IPPU sector with the 5.97% (311.18 Gg CO₂eq) of the total emissions and the Agriculture Sector with the 3.03% of total emissions in 2016 (158.08 Gg CO₂eq).
35. Both the electricity sector and the transport sector, the largest greenhouse gas emitters are however undergoing rapid, transformational and inter-related change that will significantly alter their emissions profiles.
36. Most of the other sectors and sub-sectors would also benefit from improvements to the national greenhouse gas inventory. However, many such improvements would improve the accuracy of the inventory only marginally. Iron and Steel Production, for example, forms a prominent component of the Industrial Processes and Product Use (IPPU) sector and is currently analyzed using a Tier 1 approach. But Iron and Steel Production accounts for less than 1% of national GHG emissions.

37. Solid Waste accounts for almost one-fifth of national emissions. Improved estimation of the GHG characteristics of these sectors/sub-sectors would have a tangible impact on the national inventory.
38. Carbon sequestration is currently equivalent to a substantial 8% of national GHG emissions. The Forestry sector is subject to considerable uncertainty due to gaps in activity data and the methodology used for calculating GHG removal.
39. Agriculture accounts for nearly 3% of national GHG emissions, one-quarter of which are attributable to livestock (enteric fermentation and manure). Data paucity is specifically identified by the 2021 National Greenhouse Gas Inventory Report (p. 94) as a key barrier to estimating Livestock GHG emissions: *“Some activity data and EFs had to be estimated by using expert knowledge. It is anticipated to empower FAREI to improve collection of livestock population data and develop local emission factors to reduce the uncertainty level.”*
40. Based on current projections, Mauritius aims to reduce overall GHG emissions by 40% in 2030 compared to the Business as Usual (BAU) scenario of around 6,900 ktCO₂eq (including LULUCF) in 2030. Compared to the 2015 INDC target of 30% GHG emissions reduction by 2030, the mitigation ambition of Mauritius in the updated NDC is significantly enhanced.
41. Planned mitigation options for ROM, as indicated in the INDC, include an increase in the use of renewable energy, marine resources and cleaner energy technologies, modernisation of the electricity grid and energy efficiency measures, sustainable transportation including efficient mass transportation, sustainable and integrated waste management programme, climate smart agriculture and sustained tree planting programme (see Table II.4). A major barrier in the implementation of development priorities and mitigation options is financing. It is estimated that over USD 1.5 billion will be required for mitigation measures, in addition to about USD 4 billion for adaptation measures, up to 2030 for implementation of the INDC (INDC, 2015).

Table II.4: Key decisions to mitigate GHG emissions (NDC, 2021)

Energy Industries	<ul style="list-style-type: none"> ● The production of 60% of energy needs from green sources by 2030; ● The total phasing out of the use of coal before 2030; ● Increasing energy efficiency by 10% based on the 2019 figures;
Transport	<ul style="list-style-type: none"> ● Extension of the light rail network as part of the national strategy to modernise and upscale the public transport system by 2022; ● Progressively phasing out of subsidies and incentives for the importation of diesel buses; ● Accelerating the uptake of electric vehicles through fiscal instruments (<i>Budgets 2021/2022 and 2022/2023 makes provision for several measures to encourage the shift to electric mobility in terms of concessionary loan</i>)

	<p><i>facilities and negative duties);</i></p> <ul style="list-style-type: none"> ● Electric Vehicle Integration Road map 2020;
Waste	<ul style="list-style-type: none"> ● The diversion of 70% of waste from the landfill by 2030 including through composting plants, sorting units, and biogas plants; as per SWM Strategy, WtE may be envisaged for residual wastes after implementation of composting plants and sorting units; ● Employing anaerobic digestion;
IPPU	<ul style="list-style-type: none"> ● Banning of non-inverter air-conditioners in 2024 in a phased manner as from 2022; ● Based on the average imports of HFCs in 2020, 2021 and 2022, the adoption of a freeze to imports of refrigerants in 2024; ● 10 % emissions reduction of HFCs by 2030 compared to BAU;
Agriculture	<ul style="list-style-type: none"> ● Setting up of biogas pilot units; ● Adopting Smart Agricultural Practices, including natural farming systems; ● Agroforestry; ● Promotion of efficient irrigation techniques; ● Strategic Plan for the Food Crop, Livestock and Forestry Sectors, 2016- 2020 (under review);
LULUCF	<ul style="list-style-type: none"> ● Massive planting of trees in Mauritius and Rodrigues; ● Restoration and plantation of native forests; ● National Biodiversity Strategies and Action Plans 2017-2025; ● Plantation of mangroves.

Vulnerability Assessment & Adaptation (VA&A)

Sectors vulnerable to climate-related events

42. The 2021 World Risk Report had ranked Mauritius as the 51st country with the highest disaster risk among 181 countries. As a typical Small Island Developing States (SIDS), Mauritius is therefore highly vulnerable to the impacts of climate change. Mauritius has limited natural resources, which are under great pressure, to satisfy its socio-economic development. The sectors that are the most vulnerable to climate-related events include Coastal Zone, Agriculture, Biodiversity, Water Resources, Human Health, Tourism, Buildings and Infrastructures and Fisheries. Figure 2 below summarises the dominant climate change impacts in the country.

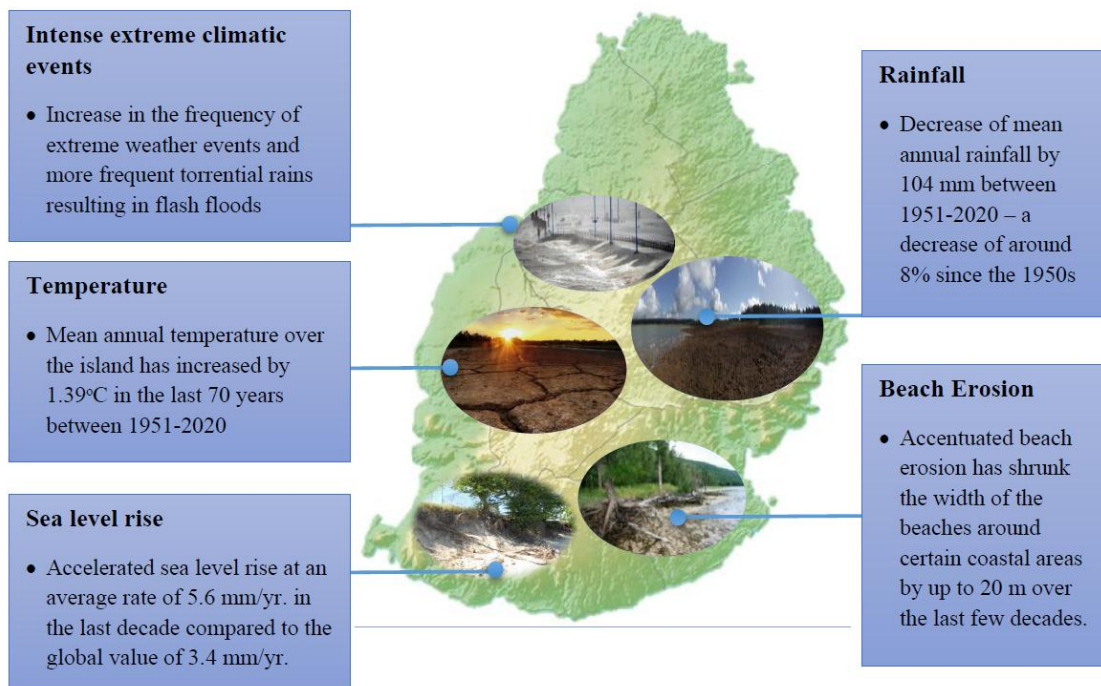


Figure 2: Climate change impacts in key areas (BUR1, 2021)

43. For NC4, some minor changes are recommended with the following sectors:
1. Agriculture (including forestry);
 2. Marine Biodiversity, Ecosystems and Fisheries (including aquaculture);
 3. Terrestrial Biodiversity and Ecosystems;
 4. Infrastructure;
 5. Human Health;
 6. Coastal Zone;
 7. Water Resources;
 8. Tourism.
44. Table II.5 summarises the ROM's mitigation co-benefits identified in Updated INDC (2021) resulting from adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of adaptation actions and/or economic diversification plans.

Table II.5:
Mitigation co-benefits resulting from adaptation actions and/or economic diversification plans (INDC, 2021)

<p>Agriculture - Crops and Livestock</p>	<p>Crops</p> <ul style="list-style-type: none"> • reduction of the use of fossil energy-based inputs (less gasoil, pesticides, fertilizers) by a shift to agro-ecological and resilient practices, • improvement of the efficiency in the use of inputs (water, agro-chemicals), • enhancement of the potential of carbon sequestration and improvement of soil fertility, • reduction of the post-harvest losses. <p>Livestock</p> <ul style="list-style-type: none"> • applying agro-ecology principles will produce lower GHG emission (through silvo-pastoral production systems and extensive systems on abandoned lands from the sugar industry,
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	<ul style="list-style-type: none"> ● improving feed conversion efficiency and better manure management).
Fisheries and Mariculture	<ul style="list-style-type: none"> ● increased information on GHG emissions from the fishery sector and aquatic food production leading to mitigation actions (regarding fuel and energy use, market forces and the management of fishing capacity, feed and fertilizers for aquaculture ● development of climate smart fishery and aquaculture based on sustainable and integrated management plans to contribute to the mitigation of GHG emissions during the fishing and production stages and throughout the entire value chain (processing, transport and marketing activities), and ● research regarding the potential of aquaculture for carbon sequestration and renewable aquatic energy (algal biofuels, hydropower and other aquatic-based energy systems that exploit the energy potential of tides, currents, waves and wind).
Infrastructure	<ul style="list-style-type: none"> ● integrating energy efficiency and energy conservation criteria into building codes targeting a lower consumption of energy (better ventilation for less/no RAC and thermal comfort), the design of green buildings (training of the architect and stakeholders), ● integrating soft engineering and green material (including Life Cycle Assessments of the materials and buildings, the reuse and recycling of materials, principles, requirements and guidance regarding the design for disassembly and adaptability given by ISO 20887:2020, the development of Building Information Modelling, Building Log books and material passports), and ● global land use planning and management (in line with Mauritius Resilience Strategy for a Ridge to Reef vision to protect environmentally sensitive areas) with the implementation of setback, buffer zones, and a better management of Disaster Risks. The progress made in terms of information and communication technologies is also taken into account, given the fact that Mauritius is moving towards a more digital economy.
Water	<ul style="list-style-type: none"> ● increased energy efficiency through the sustainable use of water resources, in particular by improving energy efficiency in the treatment of water resources, and the use of water in energy production. ● Promote re-use of treated wastewater and thereby contribute to sustainable use of clean water
Tourism	<ul style="list-style-type: none"> ● promotion of a “green tourism industry” meaning more energy efficiency, renewable energy, water efficiency, waste management, wastewater treatment, local – short value-chains for both the touristic / leisure infrastructures and the activities.
Biodiversity	<ul style="list-style-type: none"> ● assessment and monitoring of blue carbon in coastal and marine ecosystems (mangroves, tidal marshes and seagrasses), ● a comprehensive ecosystem-management, ● joint efforts (with local communities, NGOs) to restore ecosystems and, thus, the carbon storage capacity (mangrove, forest, coral reef rehabilitation), ● tree planting programme within the context of the Greening Mauritius Programme such as greening of motorway and major roads in towns and villages, undertaken to increase carbon sink, and ● creation of new endemic forests.

Adaptation Measures

45. In alignment with the previous NCCAPF (2012) and other national priorities, the updated NCCAPF (2021) focuses on the potential of nature-based solutions for adaptation, as well as green job creation, managing thus the impacts of the COVID-19 pandemic, while addressing some of the most pressing issues regarding biodiversity and sustainable resource management.
46. In alignment with the National Biodiversity Strategy and Action Plan 2017-2025, the updated NCCPAF promotes Ecosystem-based Adaptation which harnesses biodiversity and ecosystem services to reduce vulnerability and build resilience to climate change.
47. Several **Acts** are already implemented and are relevant for climate change adaptation. The legislation listed below has been identified:
- Ports Act (1998)
 - Environment Protection Act (2002)
 - Local Government Act (2011)
 - National Disaster Risk Reduction and Management Act (2016)
 - Land Drainage Authority Act (2017)
 - Mauritius Meteorological Services Act (2019)
 - Climate Change Act (2020)
48. Several **Strategies and Action Plans** are in place, with the aim of setting the ground for action in vulnerable sectors in relation to climate change:
- Guideline for Climate Change Adaptation Strategy Coastal Setback (2016)
 - Land Drainage Master Plan (2021-2030) –under finalization
 - Marshall Plan Against Poverty Vol 1 and 2 (2016)
 - Master Plan for the Development of Water Resources in the Republic of Mauritius (2012)
 - Master Plan on Environment (2020-2030) - under finalisation
 - Mauritius Resilience Strategy (2019)
 - Mauritius Vision 2030
 - National Biodiversity Strategy and Action Plan (2017-2025)
 - National Disaster Risk Reduction and Management Policy, Strategic Framework and Action Plan 2020-2030
 - National Gender Policy (2022 -2030) launched in March 2022
 - Protected Area Network Expansion Strategy (PANES) (2017-2026)
 - Strategic plan for the food crop, livestock and forestry sectors 2016-2020
49. Moreover, building on current adaptation actions and policies, the following list of actions is identified:
- Rehabilitation of degraded coastline
 - Development of a coral restoration strategy
 - Increase of conservation area for terrestrial biodiversity
 - Develop climate smart agriculture and sensitize farmers of vulnerable areas
 - Develop novel systems of irrigation and sensitize planters in vulnerable areas on water saving systems
 - Construction and upgrading of drain projects across the island
 - Construction of housing units equipped with solar energy for water heaters
 - New development to comply with an increase in building setback
 - Increase water production capacity of existing desalination plants in Rodrigues
 - Restoration of lagoon in Rodrigues through the planting of corals
 - Construction of breakwater e.g. in the Port Area.

- Increase coverage of Nationally declared Nature Reserves, especially in Rodrigues; these reserves must be gradually restored using native plants for effectively sequestering carbon and mitigating CC and recreating the habitat necessary for our extant native fauna.
 - Develop large no-take Nature Reserve forests in all ecological habitats (wet forest, dry forest, river, mountain, estuarine, wetland, savannah, etc.) to mitigate Climate Changes other environmental issues we are currently facing.
50. Mauritius will need international support to implement the adaptation measures and the priority adaptation actions for the main sectors. The indicated financial need of meeting this requirement is estimated at USD 4.5 billion (Mauritius island and Rodrigues Island) by 2030 (NDC, 2021).
51. Adaptation and resilience-building efforts will focus on tangible and intangible investments, infrastructure, capacity building, and project-based initiatives and interventions. The priority is placed on defending the existing physical and cultural assets and resources, and developing good practices.
52. Several challenges are identified as barriers to the implementation of adaptation, such as conflicting timescales, conflicting interests, limited financial resources, insufficient human resources, inadequate technical expertise and technology, uncertain societal costs and future benefits, and fragmentation within and between scales of governance.
53. The adaptation ambition has been enhanced compared to the 2015 INDC target, with more specific and targeted actions: responsible institutions, risks and vulnerabilities, relevant legislations, policies and programs are added.
54. Several adaptation actions contribute to the implementation of other international frameworks through building inter-linkages and synergies as follows:
- the Sendai Framework for Disaster Risk Reduction 2015-2030
 - UN Convention to combat drought and desertification (UNCCD)
 - Convention Biological Diversity
 - Sustainable Development Goals, 2030

The “SDG alignment analysis” developed by Heat GmbH in 2021 shows that overall the adaptation actions of the NCCAPF 2021 contribute to the achievement of specific SDG targets namely SDG 1 on Poverty, SDG 6 on clean water and sanitation, SDG 9 on industry, innovation and infrastructure, SDG 13 on Climate Action, SDG 14 on life below water and SDG 15 on life on land.

Other Information including Mainstreaming Cross-cutting issues

55. Cross-cutting issues should be integrated and mainstreamed throughout all stages of development from policy design, to implementation, evaluation and learning with due consideration to SDG spectrum. In

the context of NC reporting, several areas are concerned and are outlined below. Cross-sectoral considerations cannot only provide coherent solutions but also promote coordination, developing synergies, turn problems into new opportunities, and increase efficiency of budget allocation and policy implementation.

Climate Change Research and Systematic Observation (CCRSO)

56. ROM systematically observes several of the Essential Climate Variables of the climate system comprising the atmosphere, oceans and land surface. Mauritius Meteorological Services (MMS) equipped with operational stations (including a meteorological RADAR donated by Japanese Government and installed at Trou Aux Cerf), satellite data and information including ARGO floats; MMMs' observing network however needs to be upgraded and extended. Other observing bodies include NEL, MBEMRFS, MOI, AFRC, FAREI, etc. However, there is a need to enhance the existing network of observations to include new sets of observations in support of climate change mitigation (CCM) and adaptation, and of sustainable development activities. A laudable initiative for small farmers was the real-time agrometeorological stations; which, however, are no longer operational and need to be revived. Another less obvious example would be an array of solar pyranometers, coupled with satellite data, and other GIS layers for forecasting solar energy to render the national grid less vulnerable to intermittency. There is the need to develop contextualised policy-based climate research that deals with the cross-sectoral impacts of multiple compounding events.

Education, Training and Public Awareness (ETPA)

57. Education, Training and Public Awareness (ETPA) are fundamental to enhancing the capability of the population to understand, mitigate and adapt to climate change and contribute to the transformation of ROM into a low carbon and sustainable economy. The growing national awareness and concerted efforts to address climate change-related issues are largely the result of accelerated and determined actions in implementing Article 6 of the UNFCCC Convention. A multi-tier approach has been adopted and includes the use of communication media, organising workshops/ seminars, and mainstreaming strategies in the school curriculum and activities. ETPA examines all aspects of education related to Climate Change (CC) and sustainable development including the requirements for the infiltration of equipment and other educational initiatives to assist in climate change activities.

Knowledge, Information Sharing & Networking (KISN)

58. NC preparation requires a wide range of data and information across disciplines and therefore calls for greater collaboration and information sharing among policy and decision makers, public and private sectors, academia, civil society and the public. A number of data sharing facilities exist at the national and ROM's involvement in various regional activities provide considerable opportunities for networking and information sharing at regional level. The Climate Change Information Centre (CCIC) has been

gradually building its institutional capacity but has a long way to develop into a robust network to serve as a Centre of excellence with a platform for knowledge and information sharing primarily because of lack of expertise. Mauritius cannot afford to have high-level expertise (for example, experts using high-level geospatial modelling) scattered across all sectors. Hence, our proposal is to settle for a National Data Information Centre carefully designed to meet ROM's reporting and obligations under various international conventions.

Capacity Building (CB)

59. The Paris Agreement aims to strengthen the global response to the threat of climate change through the implementation of NDCs and national development plans, in the context of sustainable development and efforts to eradicate poverty. Paris Committee on Capacity-building (PCCB) agreed on the following focus area for 2022: *'Building capacity to facilitate the coherent implementation of nationally determined contributions (NDCs) in the context of national development plans and sustainable recovery'*. The PCCB aims to address gaps and needs, both current and emerging, in implementing capacity-building and further enhance capacity-building efforts. Current priority areas are (PCCB, 2022):

- *Enhancing coherence and coordination of capacity-building under the Convention;*
- *Identifying capacity gaps and needs, both current and emerging, and recommending ways to address them;*
- *Promoting awareness-raising, knowledge- and information-sharing and stakeholder engagement.*

This presents ample opportunities to promote coherence in achieving climate and development objectives. The COVID-19 pandemic accelerated multiple crises, and solutions for economic recovery efforts need to be responsive to the climate emergency and facilitate a transition to a greener, fairer, and more sustainable world, and capacity-building is a key enabler for this.

60. To facilitate coherent NDC implementation and planning, the key interventions for ROM includes (PCCB, 2022), amongst others: (i) fostering an integrated planning and implementation approach between the water and agricultural sectors, (ii) establishing an integrated framework for the management of fisheries founded on the Blue Economy concept, which includes coastal zone management and marine biodiversity conservation, (iii) fostering an integrated approach combining the goals and targets for the fisheries and tourism sectors with the coastal zone management sector, and additionally with the marine biodiversity sector, (iv) developing and implementing an integrated approach which combines tourism, biodiversity, forestry and agricultural sectors with the coastal zone management. (v) enhancing strategic frameworks to address policy gaps and improve expertise in the Health sector including through integrating climate risks into planning and developing policies in the National Adaptation Plan, and (vi) increasing resilience of human-led activities whilst preserving ecosystem functions, through improving governance, enhancing disaster preparedness and response mechanisms, are recommended for Infrastructure and disaster risk reduction sector.

The enabling conditions include Gender inclusiveness environment; Coherent Policy makers and strategic policies; promotion of people-to-people approach; joint collaboration of central government, NGOs, corporates and public sector; good governance. The key institutional barriers include conflicting timescales, conflicting interests, limited financial resources, insufficient human resources, inadequate technical expertise and technology, uncertain societal costs and future benefits, and fragmentation within and between scales of governance, gender discrimination amongst others. The capacity gaps include: Absence of strategic contingency plans; Insufficient campaigns to sensitise locals on preservation of biodiversity; Lack of strategic policy makers; Inadequate technical expertise. The CB needs include Leadership, Institutional Development, Good governance, Resource Generation. The knowledge and skills priorities include Creating and supporting local green experts in areas of environmental and drainage management. The success of the CB efforts targets, as recipients, farmers, farmers organisations, agripreneurs, youths, women at the subnational level, the Central Government, public sectors, big corporates at the national level, and Joint collaboration of governments, corporates & third parties at the regional level.

61. Consultants are constantly deployed for capacity building initiatives in the context of major projects of concerned stakeholders including public, private, NGOs, research institutions and academia. Training can be generic, targeted or highly specialised. There should be regular sector-specific capacity building to cater for the mobility of officers and to ensure the sustainability of the reporting process. Capacity building exercises should be better structured, and it should be ensured that officers get the opportunity to apply new knowledge and skills that they have acquired.

62. The training for GHG Inventory should, amongst others, encompass:

- Identification and retrieval of sectoral activity data and analysis, (limited) modelling and uncertainty analysis;
- Data collection and handling including disaggregation;
- Data uploading on NIDC platform (according to SEP);
- Development of country specific EFs;
- Use of IPCC GHG Inventory software and guidelines;
- Scenario building to curtail GHG emissions;
- Sectoral or Sub-Sectoral Inventory Reporting;
- Policy measures to achieve national priorities along with the objectives of the UNFCCC;
- Quality Control and Quality Assurance.

Sector-specific training can include:

- Assessing Key Vulnerabilities and the Risk from Climate Change;
- Geospatial analyses;
- Use of indicators in the vulnerability assessment to evaluate adaptive strategies and measures;

Gender and Climate Change

63. Owing to the disproportionate nature whereby CC is impacting on men and women differently, making it harder for women to adapt to climate change, given the prevailing social and economic inequities, gender mainstreaming holds an important role both in CC adaptation and mitigation. The Mauritius INDC incorporates gender issues. The importance of gender mainstreaming is mainstreamed in leaflets such as the booklet “Guide pour la famille”, which illustrates practical actions which can be taken at household level to combat climate change. The CCAct makes provision for gender consideration in initiatives on climate change. Ministry of Environment, Solid Waste Management and Climate Change has a Gender Policy Statement (originally formulated in 2012), consistent with the operational guidelines of the National Gender Policy Framework (2008), which provides a framework for mainstreaming gender in climate policies, programmes and activities, thereby promoting women’s equal participation with men as decision-makers in shaping a sustainable development society. It is important that vulnerability assessments to CC impacts factor-in the gender issue in order to strengthen the capacity of society to act in a changing climate.

An initial approach to gender analysis in all areas and the inclusion of stakeholders who understand gender issues in relation to their sectors will be implemented to help assess and make global reports more credible, realistic and sustainable. The update of the chapter on national circumstances will take into account the gender dimension to better understand how the different roles of men and women in social and economic circumstances can affect ROM's capacity to cope with mitigation and adaptation to climate change. Therefore, in the context of the studies on vulnerability and adaptation to climate change in the NC4, an in-depth analysis of the role of gender in adaptation activities will be done with a view to highlighting the extent to which this issue has been considered. Thus, the expected results will be the subject of recommendations for most of the project results (national circumstances, V&A, mitigation, gaps and constraints, etc.).

At the Gender and Climate Change study level, data disaggregated by sex will be collected in all areas. Research done to date on gender issues in relation to resource use, natural resource management and the role of women and men in each area of the economy will also be highlighted. Efforts will also be made to ensure that project management structures (committees, institutional frameworks, technical teams) and capacity building actions (training, workshops) take into account the representation of women.

Disaster risk reduction and management

64. As per the MMS Act 2019, MMS is the sole official authority responsible for monitoring the general weather and climate conditions, including extreme weather events, throughout Mauritius and for providing weather forecasts, warnings and advisories for the welfare and safety of the general public and

for the protection and safety of maritime and aeronautical navigation. The Republic of Mauritius is the first Small Island Developing State (SIDS) in the Indian Ocean with its own Early-Warning System for improving preparedness and resilience.

The recent flood events were one of the factors that prompted the creation of the National Disaster Risk Reduction and Management Centre (NDRRMC) which has been administratively operational since October 2013. Its mandate is to establish a strategic and coordinated approach to disaster management for ROM. The NDRRMC caters for the disaster risk reduction and disaster management aspects of both natural and human-caused hazards. The Government has enacted a National Disaster Risk Reduction and Management Act in April 2016. The NDRRMC acts as the main institution in Mauritius for coordinating and monitoring the implementation of disaster risk reduction and management activities as per the National Strategic Framework and National Plan. The Act provides a legal framework for:

- a) the prevention and reduction of risk to disasters;
- b) the mitigation of the adverse impacts of disasters;
- c) disaster preparedness;
- d) rapid and effective response to disasters; and
- e) the management of post-disaster activities, including post-disaster recovery and rehabilitation.

Enhancing disaster resilience, preventing climate and disaster-related risks, and protecting those left furthest behind are essential strategies that would prevent derailing progress towards achieving the SDGs.

65. The NDRRMC has been set up with the following additional structures:
- o a National Disaster Risk Reduction and Management Council that would oversee disaster management activities in Mauritius and the outer islands;
 - o a Local Disaster Risk Reduction and Management Committee in the Municipal City Council, the Municipal Town Councils and the District Councils to manage disaster risk reduction in the respective localities;
 - o a Rodrigues Disaster Risk Reduction and Management Committee to assist in the preparedness, response, rehabilitation and recovery operations before, during and after the occurrence of a disaster or an emergency in Rodrigues; and
 - o a Rodrigues Disaster Risk Reduction and Management Centre which would be responsible for the planning, coordinating and monitoring of disaster risk reduction and management activities in Rodrigues.

Technology Transfer & Development

66. Developing countries have been benefiting from financial assistance from Global Environment Facility (GEF) to define their technological priorities for climate adaptation under the UNFCCC Poznan Strategic Programme on Technology Transfer. The UNFCCC-supported Technology Needs Assessment (TNA) process was adopted using multi-criteria analysis and logical problem analysis. The action plan initially constituted technologies for the energy industries, transport, solid waste, agriculture and FOLU sectors which included energy efficiency, renewable energy technologies, can be enhanced to include

Agriculture 5.0, intelligent systems, Electric Vehicles, Battery Energy Storage Systems, and many others. Prioritised adaptation technologies identified in the TNA includes micro-irrigation and integrated-pest management for the agricultural sector; desalination, roof top rainwater harvesting, and hydrological modelling for the water sector; dune vegetation, wetland protection, and rock revetment for coastal zones.

Integration of Climate Change consideration into social, economic and environmental policies and actions (CCCPA)

67. As countries move toward rebuilding their economies after COVID-19, recovery plans can shape the 21st century economy in ways that are clean, green, healthy, safe and more resilient. The current crisis is an opportunity for a profound, systemic shift to a more sustainable economy that works for both people and the planet. The UN Secretary-General has proposed six climate-positive actions for governments to take once they go about building back their economies and societies:

- Green transition: Investments must accelerate the decarbonization of all aspects of our economy;
- Green jobs and sustainable and inclusive growth;
- Green economy: making societies and people more resilient through a transition that is fair to all and leaves no one behind;
- Invest in sustainable solutions: fossil fuel subsidies must end and polluters must pay for their pollution;
- Confront all climate risks;
- Cooperation – no country can succeed alone.

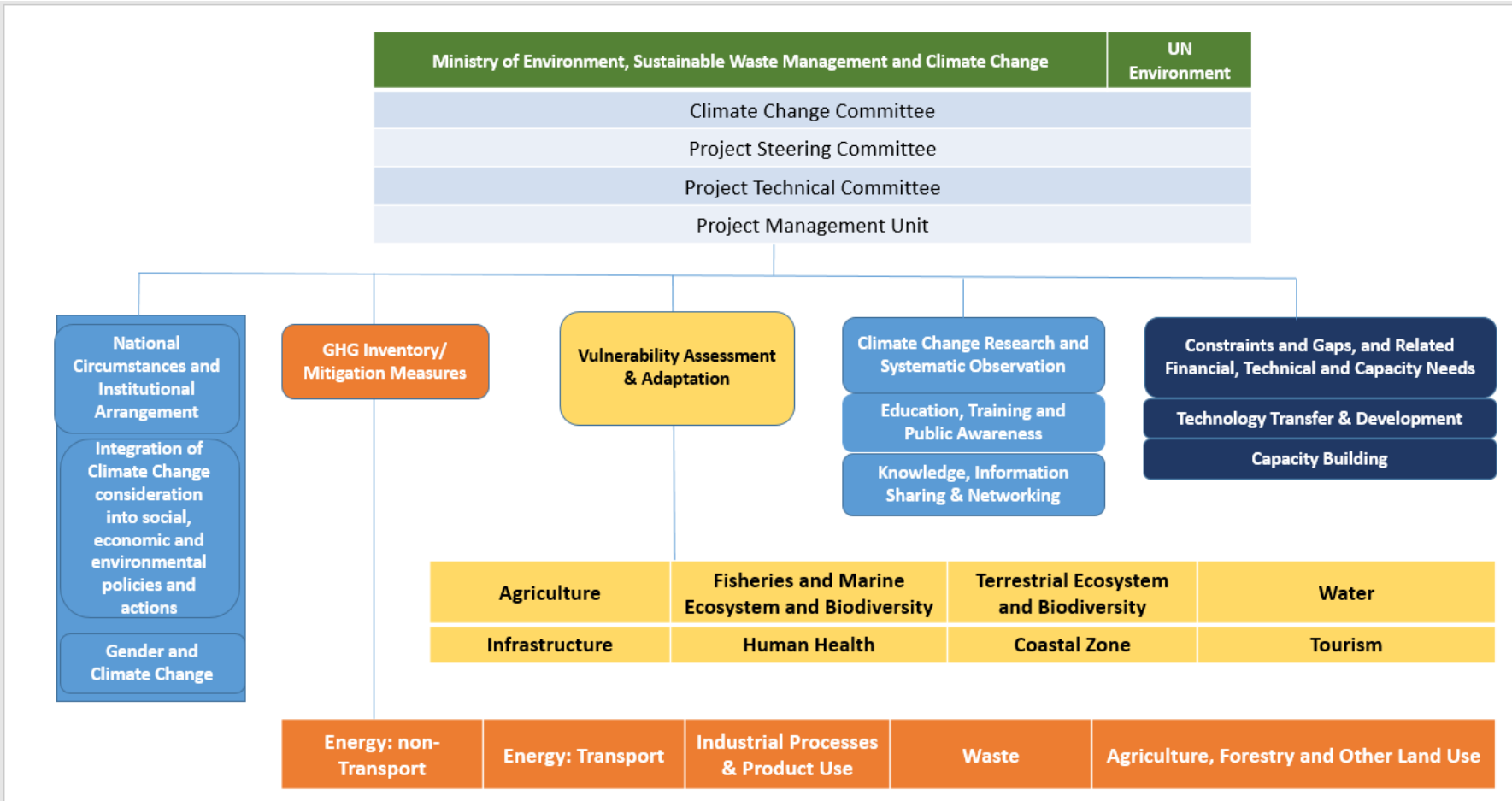
To address the climate emergency, post-pandemic recovery plans need to trigger long-term systemic shifts that will change the trajectory of CO₂ levels in the atmosphere. The main actors driving CCCPA will include MCCI, EDB, National Business roadmap by BM, etc.

d. Institutional Framework

68. The preparation of the fourth national communication (NC4) is a project which is under the coordination and administrative and technical supervision of the Ministry of Environment, Solid Waste Management and Climate Change (MESWMCC). The latter has the mandate to fulfil the reporting requirement of ROM to the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (KP) and now the Paris Climate Change Agreement. Several Government institutions, private sector, research organisations, academic institutions and NGOs are involved in various climate change activities. Since 1st March 2010, the Climate Change Division of the MESWMCC was tasked with the coordination of climate change activities and the mainstreaming of climate change into key sectors. But, under the 2020 CC Act, the Department of Climate Change, *inter alia*, develops policies, programmes and action plans relating to climate change and coordinates research relating to climate change.

69. For NC4, a slightly modified structure of the organizational structure proposed by TNC is recommended to be adopted. Figure 3 depicts a flowchart for the implementation of the required activities project for the preparation of NC4 for the Republic of Mauritius

Figure 3: Institutional Framework proposed for NC4 Preparation



Climate Change Committee

70. To facilitate the coordination of project activities, ensure transparency, high level support and sustainability of project results, the 2020 CC Act provides for a Climate Change Committee to be established. The Climate Change Committee coordinates the preparation of reports relating to climate change and the implementation of activities related to greenhouse gas inventories, greenhouse gas emission reduction, climate change vulnerability assessments and adaptation to climate change. The Act also provides for the Commissioner for Environment in Rodrigues to be responsible for the formulation of climate change strategies and ensure that climate change measures are effectively and efficiently implemented and maintained in Rodrigues in addition to a Rodrigues Climate Change Committee which collaborates and coordinates with the Climate Change Committee for the preparation of reports related to climate change.

According to the 2020 CC Act, the Climate Change Committee consists of –

- the supervising officer or his representative, as chairperson;
- the Director;
- one representative from each of the Ministries, Departments and other bodies specified in the Second Schedule of the Act;
- a representative of the Council of Registered Professional Engineers of Mauritius;
- a representative of the civil society, having knowledge and wide experience in climate change matters, to be appointed by the Minister; and
- a representative of the private sector, having knowledge and wide experience in climate change matters, to be appointed by the Minister.

Therefore, the Climate Change Committee will coordinate the preparation of the Fourth National Communication and its National Inventory Report.

Project Steering Committee

71. A Project Steering Committee (PSC), under the chair of the Permanent Secretary of focal ministry, will be set up to provide guidance and facilitate political and stakeholder acceptance of the outcomes of the fourth National Communication (Appendix 2A). The PSC is the framework for information exchange, consultation and monitoring of project implementation. The main functions of the PSC are:

- supervising, guiding and monitoring the implementation and management of the NC4 project, in accordance with the requirements of the Global Environment Facility (GEF) through the United Nations Programme for Environment (UNEP) as Donor and national development priorities set by the Government (political and stakeholder acceptance), through the Ministry of Environment, Solid Waste Management and Climate Change as administrative and technical supervisor.

- providing overall quality assurance for the final deliverables of the project, namely the NC4 and NIR reports.
- evaluating the results of the project to ensure that the project activities are carried out in a timely manner.

In a timely manner, PSC will periodically analyze and assess the progress of the project (business plan, budget, expected results, indicators) and the achievement of results according to the objectives on the basis of the various reports (execution reports, monitoring reports, evaluation report, financial audit reports, and final report) in order to propose solutions to any difficulties encountered. PSC will formulate the necessary measures, if any, to ensure that the proposed activities and outputs of the project achieve the objectives of the project while providing the necessary guidance to the various bodies. PSC will remove the barriers and obstacles to the effective and proper implementation of the project such as acquisition of data. PSC will also provide oversight responsibility to ensure a smooth transition from the current national communication report to the subsequent national report and any other follow-up action.

PSC will collaborate with the Project Management Unit (PMU) in the preparation of the NC4 report to be submitted to the UNFCCC secretary. PSC will ensure that the preparation of the national report conforms to the UNFCCC guidelines for the formulation of national communication. As such, PSC will participate in validation of all reports resulting from the project. PSC will ensure the submission of the national report to the UNFCCC secretary and to higher authorities involved in decision-making.

The Project Steering Committee (PSC) will be composed of various representatives of government agencies, academic institutions, NGOs and the private sector (see Appendix 2A). This will include evaluating the project outputs to ensure project activities are being carried out in a timely manner.

Project Technical Committee

72. A Project Technical Committee (PTC) under the chair of the Director of Climate Change, will be set up that will be responsible for the animation and the daily implementation of the activities (Appendix 2B).

The PTC will:

- provide leadership to the NC4 process and to deal principally with all technical aspects of the NC4/NIR in accordance with the donor procedures and those contained in the approved project document,
- coordinate all activities, provide services and carry out activities such as procurement and delivery of project inputs, and their conversion into results, and
- support the work of the different Technical Working Groups and subgroups

The Project Technical/Steering Committee (PTC), composed of various representatives of government agencies, academic institutions, NGOs and the private sector, will be responsible for supervising the

project implementation plan. Staff from the Department of Climate Change will support the PTC.

Project Management Unit/Team

73. A management team will have to be set up at the Department of Climate Change. The Project Management Unit (PMU) will follow both national and UNEP/GEF regulations for project management to ensure maximum compliance with the procedures for disbursement of funds and transmission of the various deliverables constituting the NC4. This project management team (PMT) consists of:

- National Project Coordinator;
- Intern under the “Service to Mauritius (STM) Programme”;
- Project Accountant.

Staff Requirement

National Communication National Project Coordinator(FULL TIME)

74. A National Project Coordinator (NPC) will be recruited by MESWMCC to oversee project implementation. He/she will be responsible for the overall management of all aspects of the project, and will provide assistance to the national technical working groups. The National Project Coordinator will coordinate the functions of the PTC and will be responsible for the effective, efficient and timely implementation of project activities. The National Project Coordinator will be supported by one (1) full-time STM Intern and one (1) part-time Project Accountant. Under the supervision of the Director of Climate Change, the National Project Coordinator will report to: (i) the Project Steering Committee (PSC) and (ii) UNEP. The Director of Climate Change will act as the National Project Director.

The TOR of the NPC is given in Appendix 2C, with the modification that the NPC may also be contracted on a part-time basis.

Intern under the “Service to Mauritius (STM) Programme (FULL TIME)

75. The STM Intern (replacement for the usual Project Assistant) will provide technical cum administrative assistance to the NPC to facilitate the proper execution and smooth implementation of the project. The TOR is given in Appendix 2C.

Project Accountant (PART TIME)

76. In accordance with the rules and procedures for the execution of public expenditure, one (1) Project Accountant is responsible for the collection of receipts, the payment of expenses and the conservation of funds and securities. The TOR is given in Appendix 2C. This function may be provided by the finance section of the Ministry of Environment, Solid Waste Management and Climate Change.

Consultants

77. To contribute in the preparation of the relevant chapters, executive summaries, and technical Appendixes (if any), Consultants will be recruited. The TORs for Consultants are given in Appendix 2E. The Consultants will assess as per the 2006 or latest IPCC guidelines in collaboration with stakeholders.

Technical Working Groups and Subgroups

78. Technical Working Groups (TWGs) and Subgroups, made up of Experts or Specialists in the relevant sections, primarily from government bodies and parastatals, will be formed to support the National Project Coordinator continuously during the implementation period of the NC4 project. The TWGs, accountable to the National Project Coordinator, will assist the latter in the preparation of an annual work plan under the relevant sections and collection of data and information necessary for the implementation of the project. TWGs lead specific reflections for the proper conduct of the various themes of the project. TWGs provide technical assistance for project activities recorded in its specifications and guidance on scientific and methodological training in project implementation. TWGs will not only assist the NPC in the organization of national examination and training workshops on the relevant section but also propose technical capacity building in the section concerned. TWGs can initiate discussions and provide support for carrying out exploratory studies and strengthening national capacities in the area of climate change. Finally, the responsibility of prepare the reports of the various sections for inclusion in the compilation of the NC4 rests with the TWGs.
79. Under the structure proposed, five (5) TWGs (and, where applicable, their subgroups) will be established to oversee the implementation of climate change activities in the following:
- 1) TWG: National Circumstances and Institutional Arrangement/ Integration of Climate Change consideration into social, economic and environmental policies and actions/ Gender and Climate Change
 - 2) TWG: GHG Inventory/Mitigation Measures
 - 3) TWG: Vulnerability Assessment & Adaptation
 - 4) TWG: Climate Change Research and Systematic Observation/ Education, Training and Public Awareness/ Knowledge, Information Sharing & Networking
 - 5) TWG: Constraints and Gaps, and Related Financial, Technical and Capacity Needs / Technology Transfer & Development/ Capacity Building
80. Table II.6 below provides the proposed composition and chair of the TWGs (and, where applicable, the subgroups).

Table II.6: Proposed Institutional Arrangements for the Preparation of the Fourth National Communication for the Republic of Mauritius

Ministry of Environment, Sustainable Waste Management and Climate Change	UN Environment
Climate Change Committee	
Project Steering Committee (PSC)	
Project Technical Committee (PTC)	
Project Management Unit (PMU)	Accountant

TWG: NCIA/CCCPA/GCC

<p>National Circumstances and Institutional Arrangement/ Integration of Climate Change consideration into social, economic and environmental policies and actions/ Gender and Climate Change</p> <ul style="list-style-type: none"> • Ministry of Environment, Solid Waste Management and Climate Change (Department of Climate Change) (Co Chair) • Ministry of Finance, Economic Planning and Development (Co Chair)
<ul style="list-style-type: none"> • Academia • Business Mauritius • Economic Development Board • Land Drainage Authority • Mauritius Meteorological Services • Ministry of Agro-Industry and Food Security • Ministry of Blue Economy, Marine Resources, Fisheries and Shipping • Ministry of Education, Tertiary Education, Science and Technology • Ministry of Energy and Public Utilities • Ministry of Gender Equality and Family Welfare • Ministry of Health and Wellness • Ministry of Housing and Land Use Planning • Ministry of Land Transport and Light Rail • Ministry of Local Government and Disaster Risk Management • Ministry of National Infrastructure and Community Development • Ministry of Rodrigues, Outer Islands & Territorial Integrity • Ministry of Social Integration, Social Security and National Solidarity • Ministry of Youth Empowerment, Sports and Recreation • National Disaster Risk Reduction and Management Centre • Rodrigues Regional Assembly • Statistics Mauritius • DCC

GHG Inventory/Mitigation Measures Overall Co-Chairs: Statistics Mauritius & Ministry of Environment, Solid Waste Management and Climate Change (Department of Climate Change)	
Sub-TWG: GHGI/MM (Energy: non-Transport) – Combines former Energy Industries & Energy Other Sector (Residential, Commercial/Institutional/Manufacturing Industries & Construction and Agriculture/Forestry/ Fishing) Central Electricity Board (SubChair)	
	<ul style="list-style-type: none"> • Academia • AHRIM • Business Mauritius • Energy Efficiency Management Office • 1 FROM IPPs – Intermittent REs (Solar/Wind Farms) • 2 FROM IPPs – Thermal REs (Alteo; Omnicane; Terragen; Sotravic Ltd) • MARENA • Mauritius Cane Industry Authority (MSIRI) • Mauritius Export Association • 3 FROM MESWMCC (DCC; SD; Pollution, Prevention and Control Division; Post EIA monitoring) • MEPU • MIDSMEC • Ministry of Commerce and Consumer Protection (Commerce Division) • MNIFCD (Architect Division) • Rodrigues Regional Assembly • State Trading Corporation • Statistics Mauritius (Environment)
Sub-TWG: GHGI/MM (Energy: Transport) - (Road Transportation, Civil Aviation & Water borne Navigation) <ul style="list-style-type: none"> • MLTLR (Co SubChair) • External Communication Division (Prime Minister’s Office) Co Sub Chair 	
	<ul style="list-style-type: none"> • Air Mauritius Ltd • Airports of Mauritius Ltd • Department of Civil Aviation • Mauritius Ports Authority • Mauritius Shipping Corporation Ltd • Mauritius Tourism Authority • MBEMRFS (Albion Fisheries Research Centre; Shipping Division) • MEPU (due to the transport/energy nexus); • MESWMCC (DCC; Coordination and Project Implementation Division) • MLTLR (Metro Express Ltd) • MNICD (Mechanical Engineering Division) • National Land Transport Authority • Rodrigues Regional Assembly • Statistics Mauritius • Traffic Management and Road Safety Unit
Sub-TWG: GHGI/MM (Industrial Processes & Product Use)	

MESWMCC (National Ozone Office) (SubChair)	
	<ul style="list-style-type: none"> • MCFI Ltd • Mauritius Chamber of Industry and Commerce • MESWMCC (DCC) • Ministry of Industrial Development, SMEs and Cooperatives (Industrial Development Division) • Rodrigues Regional Assembly • Samlo Ltd • Statistics Mauritius
Sub-TWG: GHGI/MM (Waste) - Solid & Liquid Wastes Solid Waste Management Division (co-SubChair) Wastewater Management Authority (co-SubChair)	
	<ul style="list-style-type: none"> • AHRIM • MESWMCC (DCC; Pollution, Prevention, and Control Division) • Ministry of Health and Wellness • NEL • Rodrigues Regional Assembly • Sotravic Ltd • Statistics Mauritius
Sub-TWG: GHGI/MM (Agriculture, Forestry and Other Land Use) MAIFS (Forestry Service) (co-SubChair) MAIFS (Food and Agricultural Research and Extension Institute) (co-SubChair)	
	<ul style="list-style-type: none"> • 2 FROM Fertiliser Importers (MCFIL; Desbro Trading Ltd; Island Fertilisers; Mauritius Cooperative Agricultural Federation Ltd) • 3 FROM MAIFS (Agricultural Services; FAREI (Crop; Livestock); Land Use Division; Veterinary Services Division;) • Mauritius Cane Industry Authority (MSIRI) • Mauritius Chamber of Agriculture • Mauritius Meat Association • MBEMRFS (Albion Fisheries Research Centre) • MESWMCC (DCC) • MHLUP (Cartography Section) • National Parks and Conservation Service • Omnicane Ltd • Rodrigues Regional Assembly • Statistics Mauritius

TWG: VA&A

VULNERABILITY ASSESSMENT & ADAPTATION Overall co-Chairs: MESWMCC (DCC) & NDRRMC
Sub-TWG: VA&A Agriculture MAIFS (Agricultural Services) (SubChair)

	<ul style="list-style-type: none"> • Academia • Irrigation Authority • MAIFS (Food and Agricultural Research and Extension Institute) • 2 FROM MAIFS (Land Use Division; Veterinary Services Division; Forestry Service) • Mauritius Cane Industry Authority (MSIRI) • Mauritius Meteorological Services • MCA • MESWMCC (DCC) • MHLUP (Cartography Section) • National Parks and Conservation Service • Rodrigues Regional Assembly • Statistics Mauritius
Sub-TWG: VA&A Fisheries and Marine Ecosystem and Biodiversity MBEMRFS (SubChair)	
	<ul style="list-style-type: none"> • Academia • Mauritius Meteorological Services • MBEMRFS (Albion Fisheries Research Centre; Mauritius Oceanography Institute) • MESWMCC (DCC) • 2 FROM NGO (Reef Conservation; The Mauritius Marine Conservation Society; MUG; LagonBleue) • Rodrigues Regional Assembly
Sub-TWG: VA&A Terrestrial Ecosystem and Biodiversity National Parks and Conservation Services (SubChair)	
	<ul style="list-style-type: none"> • Academia • MAIFS (Forestry Services) • Mauritian Wildlife Foundation • Mauritius Meteorological Services • MESWMCC(DCC) • Rodrigues Regional Assembly
Sub-TWG: VA&A Infrastructure Ministry of National Infrastructure (Engineer/Architect) (SubChair)	
	<ul style="list-style-type: none"> • Academia • LDA • Mauritius Meteorological Services • Mauritius Ports Authority • MESWMCC(DCC) • MHLUP (Planning Division) • Ministry of Local Government and Disaster Risk Management • National Development Unit • National Disaster Risk Reduction and Management Centre • Road Development Authority • Rodrigues Regional Assembly
Sub-TWG: VA&A Human Health Ministry of Health and Wellness (SubChair)	
	<ul style="list-style-type: none"> • Academia • Mauritius Meteorological Services • Mauritius Red Cross

	<ul style="list-style-type: none"> • MESWMCC (DCC) • Rodrigues Regional Assembly • SSR Medical College, Belle Rive • Statistics Mauritius
Sub-TWG: VA&A Coastal Zone Continental Shelf (MSP) (co-SubChair) MESWMCC (ICZM) (co-SubChair)	
	<ul style="list-style-type: none"> • Academia • AHRIM • Beach Authority • Mauritius Meteorological Services • MBEMRFS (Mauritius Oceanography Institute) • MESWMCC (DCC) • Ministry of Tourism • National Disaster Risk Reduction and Management Centre • NGO (Association pour le Developpement Durable) • Rodrigues Regional Assembly
Sub-TWG: VA&A Water WRU (SubChair)	
	<ul style="list-style-type: none"> • Academia • Central Water Authority • Mauritius Meteorological Services • MESWMCC(DCC) • Rodrigues Regional Assembly • Statistics Mauritius
Sub-TWG: VA&A Tourism Ministry of Tourism and Leisure (SubChair)	
	<ul style="list-style-type: none"> • Academia • AHRIM • Beach Authority • Mauritius Meteorological Services • MESWMCC (DCC) • Ministry of Environment, Solid Waste Management and Climate Change (ICZM) • Rodrigues Regional Assembly • Statistics Mauritius

TWG: RSO/ETPA/KISN

Climate Change Research and Systematic Observation / Education, Training and Public Awareness / Knowledge, Information Sharing & Networking Mauritius Meteorological Services (Co-chair) Ministry of Education, Tertiary Education, Science and Technology (Co-chair)	
	<ul style="list-style-type: none"> • Food and Agricultural Research and Extension Institute • Mauritius Cane Industry Authority • MBEMRFS (Albion Fisheries Research Centre; Mauritius Oceanography Institute) • Mauritius Research and Innovation Council • MESWMCC (DCC, I&E, CPI) • National Environmental Laboratory

- National Disaster Risk Reduction and Management Centre
- Rajiv Gandhi Science Centre
- MIE
- Academia
- Ministry of IT (Central Informatics Bureau)
- NGO
- Rodrigues Regional Assembly
- Water Resources Unit
- Central Information System Division
- Government Online Centre (National Computer Board)

TWG: CG/TTD/CB

Constraints and Gaps, and Related Financial, Technical and Capacity Needs / Technology Transfer & Development (TT&D) / Capacity Building

- **Mauritius Research Innovation Council - Co-chair**
- **Academia (UdM): Co-chair**

- Rodrigues Regional Assembly
- Ministry of Finance, Economic Planning and Development
- MESWMCC (DCC)

Sub-chairs of GHGI/Mitigation Measures

- Central Electricity Board (SubChair – GHGI/MM (Energy: non-Transport))
- MLTLR (SubChair- GHGI/MM (Energy: Transport))
- MESWMCC (National Ozone Unit) (SubChair) - GHGI/MM (Industrial Processes & Product Use)
- Solid Waste Management Division (co-SubChair - GHGI/MM (Waste) - *Solid & Liquid Wastes*)
- Wastewater Management Authority (co-SubChair- GHGI/MM (Waste) - *Solid & Liquid Wastes*)
- MAIFS (Forestry Service) (co-SubChair) GHGI/MM (Agriculture, Forestry and Other Land Use)
- MAIFS (Food and Agricultural Research and Extension Institute) (co-SubChair) GHGI/MM (Agriculture, Forestry and Other Land Use)

Sub-chairs of VA&A

- MAIFS (Agricultural Services) (SubChair - VA&A Agriculture)
- MBEMRFS (SubChair- VA&A Fisheries and Marine Ecosystem and Biodiversity)
- National Parks and Conservation Services (SubChair - VA&A Terrestrial Ecosystem and Biodiversity)
- Ministry of National Infrastructure (Engineer/Architect) (SubChair - VA&A Infrastructure)
- Ministry of Health and Wellness (SubChair - VA&A Human Health)
- Continental Shelf (MSP) (co-SubChair - VA&A Coastal Zone)
- MESWMCC (ICZM) (co-SubChair - VA&A Coastal Zone)
- WRU (SubChair - VA&A Water)
- Ministry of Tourism and Leisure (SubChair - VA&A Tourism)

Spectrum of Participating Stakeholders

81. The participation of stakeholders and the consultation process are essential for the success of the project. The consultation with the main stakeholders on the development of the NC4 benefited from the effective participation of the main stakeholders. This will result in implementation, monitoring and evaluation actions aimed at strengthening the ownership and sustainability of the preparation process for NCs (and BURs) and to make these reports more responsive to the national needs.
82. The project aims to strengthen the participation of stakeholders so that together the challenges related to climate change are met in the Republic of Mauritius. These stakeholders come from many institutions and structures: sector ministries, technical and financial partners, multinational agencies, grassroots organizations, local authorities and NGOs, media, research institutes, private sector and international organizations, with particular emphasis on related development sectors.
83. Taking a participatory project management approach, the project coordination will ensure that representatives of key stakeholders are involved early and throughout project implementation as development partners. This includes their participation in the Project Steering Committee, review of project outcomes such as recommendations for amendments to policies, plans, programs and laws, as well as participation in monitoring activities.
84. Over 75 institutions will be involved in the NC4 process. Some 10 national and capacity building workshops are envisaged (Appendix 1).
85. Table II.7 lists the key organisations and their roles and responsibilities in areas pertaining to climate change.

Table II.7: Key Organisations and their roles and responsibilities in the NC4 process

Organisations	Roles and Responsibilities
<p>Ministry of Environment, Solid Waste Management and Climate Change</p> <ul style="list-style-type: none"> • Department of Climate Change; • Climate Change Information Centre; • National Environment Laboratory; • Solid waste management Division; • Post EIA/PER Monitoring Division • Integrated Coastal Zone Management Division • Information & Education Division • Pollution Prevention & Control Division • Sustainable Development & Policy Planning Division • Environment Statistics Unit 	<p>This ministry is responsible for the implementation of the UNFCCC in ROM. It ensures the monitoring of activities and the management of the project's data archiving system.</p> <ul style="list-style-type: none"> • Implementation of the provisions of the CC Act which include coordination of climate change adaptation and mitigation, research, reporting as well as education, training and public awareness; • National Focal Point for Climate Change - Executing Agency for the NC4 and responsible for institutional co-ordination; • Environmental Impact Assessment (EIA) and monitoring; • Pollution prevention and control; • Integrated coastal zone management; • Standards for Environmental Quality; • Sustainable Development; • Education, Training and Public Awareness on environment; • Beaches and shoreline development; • Coordination of activities for promoting of clean technology in

	<p>the Refrigeration and Air Conditioning sector for the protection of the Ozone layer</p> <p>Department of Climate Change Through its work, the Department aspires to enhance the country's resilience to climate change. The Department is responsible for the development, coordination and implementation of climate change adaptation and mitigation policies, programmes and initiatives. In addition, the Department follows regional and international climate negotiations and ensures compliance with international commitments taken by Mauritius under the United Nations Framework Convention on Climate Change and the Kyoto Protocol.</p> <p>Solid Waste Management Division</p> <ul style="list-style-type: none"> • Protection of the environment and public health through proper management of solid and hazardous wastes. • Formulation of policies and strategies for environmentally sound management waste streams. Management of transfer stations and sanitary landfill in Mauritius. <p>Environment Statistics Unit Environment Statistics Unit provides environmental-trend data on flora, fauna, atmosphere, water, land and human settlements. Data is gathered from a wide range of sources such as administrative records, statistical surveys, monitoring systems and through projects.</p>
<p>Ministry of National Infrastructure and Community Development</p> <ul style="list-style-type: none"> • National Development Unit • Land Drainage Authority • Architect Department • Road Development Authority 	<ul style="list-style-type: none"> • Green buildings • Roads network • Drainage programme • Landslide management
<p>Ministry of Agro Industry and Food Security</p> <ul style="list-style-type: none"> • Forestry Service • National Parks and Conservation Service • FAREI • MCIA • Irrigation Authority (IA) • Small farmers Welfare Fund 	<p>The Ministry has several responsibilities including setting policies on food security, management of forests, parks and reserves, biodiversity, wetlands and Agriculture both crop production and livestock.</p> <ul style="list-style-type: none"> • Ministry is therefore a leading stakeholder in the agriculture vulnerability assessments, CCA in the agriculture sector, and for managing the impacts of CC/CV on forests; • The Forestry Service has been the lead institution to carry out detailed assessments of land-based carbon sequestration in the NIR, and to carry out the GHG inventory related to forestry; • FAREI carries out the inventory of GHGs from food crop and livestock and is also involved in adaptation, mitigation and vulnerability assessments in the non-sugar agriculture sector; • The MCIA carries out climate research and components of the national communications related to sugar cane; • IA has the responsibility to deliver water for irrigation to planters and is therefore involved in vulnerability assessments and adaptation in this sector;
<p>Ministry of Housing and Land Use Planning</p> <ul style="list-style-type: none"> • Planning Division • Survey Division (comprises nine survey sections for each district, a Cartography Section, a Hydrography Section and a Land Acquisition Section) • Housing Division <ul style="list-style-type: none"> ◦ National Housing Development Company Ltd (NHDC) 	<ul style="list-style-type: none"> • Planning Division is responsible for land use planning including, policy formulation with respect to land development. • Survey Division provides information on available State lands that may be leased for residential, industrial, commercial, socioreligious, agricultural or other purposes. Wherever State lands are not available, the Division helps to identify and acquire privately owned lands for proposed development projects. • Housing Division is responsible for the formulation of strategies and policies for the social housing sector and for the implementation of social housing programmes through the

	<p>National Housing Development Company Ltd (NHDC), its executive arm.</p> <ul style="list-style-type: none"> • The Ministry has a repertory of population demographics and geospatial information on physical infrastructure; • It has key competencies in geospatial modeling tools and methodologies like GIS;
<p>Ministry of Blue Economy, Marine Resources, Fisheries and Shipping</p> <ul style="list-style-type: none"> • Mauritius Oceanography Institute (MOI) • Mauritius Ports Authority 	<ul style="list-style-type: none"> • Marine pollution from vessels • Ports • Restoration of coral reefs • Fisheries and marine ecosystem management and protection • Marine Parks <p>The Ministry is responsible for developing policies for the managements of fisheries and marine ecosystem management and protection. It is a key stakeholder in the vulnerability assessment of this sector to the impacts of CC and CV.</p> <p>MOI</p> <ul style="list-style-type: none"> • Advises Government on the formulation and implementation of policies and programmes in respect to oceanography; • Undertakes and coordinates research and development in the field of oceanography; • Monitor the marine environment around Mauritius, Rodrigues and the Outer Islands, and advise the Government on appropriate policies and strategies for the intelligent management of the living and non-living resources under its jurisdiction; • Carries out research and observations related to climate change and the marine environment; <p>MPA</p> <ul style="list-style-type: none"> • Sole national authority to regulate and control the port sector; • Provides marine services and navigation aids; • Regulates and controls all port activities and environmental issues within the designated port areas; • While needing to carry periodic updates of the Port Master Plan, the MPA has to carry out the impacts of CC and CV on the infrastructure and operations of Port Louis and Port Maturin;
<p>Ministry of Tourism</p> <ul style="list-style-type: none"> • Tourism Authority 	<ul style="list-style-type: none"> • The Ministry of responsible for developing policies, strategies and action plans for the tourism sector; • Key stakeholder for assessing the vulnerabilities of the tourism sector to the impacts of CC and CV; • Responsible for proposing adaptation measures and technologies in the tourism sector;
<p>Ministry of Energy and Public Utilities</p> <ul style="list-style-type: none"> • Energy Efficiency Management Office (EEMO) • Radiation Safety and Nuclear Security Authority • Water Resources Unit (WRU) • Central Electricity Board (CEB) • Central Water Authority (CWA) • Wastewater Management Authority (WMA) • Mauritius Renewable Energy Agency (MARENA) • Utility Regulatory Authority (URA) • Companies 	<ul style="list-style-type: none"> • The Ministry responsible for developing policies and strategies in the energy, water and wastewater sector. <ul style="list-style-type: none"> i. Promotion of Energy Efficiency ii. Regulation of Ionizing Radiation and Nuclear Security iii. Mobilization and Development of Water Resources iv. Generation, Transmission, Distribution and Sale of Electricity. v. Treatment and Distribution of Potable Water vi. Collection, Treatment and Disposal of Wastewater vii. Promote Renewable Energy Projects. viii. Regulate the utility services, namely electricity, water and wastewater ix. CEB (Facilities) Co Ltd; CEB (Fibernet) Co Ltd
<p>Ministry of Finance, Economic Planning and Development</p>	<p>Responsible for budgetary allocations and to coordinate the interventions of development partners</p>

<p>Ministry of Local Government and Disaster Risk Management</p> <ul style="list-style-type: none"> National Disaster Risk Reduction and Management Centre (NDRRMC) Mauritius Meteorological Services (MMS) 	<p>NDRRMC</p> <ul style="list-style-type: none"> Coordinating body of the Ministry for the planning, organizing, coordinating and monitoring of disaster risk reduction and management activities at all levels. <p>MMS</p> <ul style="list-style-type: none"> National institution responsible for generating, analysing, communicating and disseminating meteorological data and information in ROM; Hosts early warning systems for hazards like cyclones, torrential rain, high waves and tsunamis, among others; Stakeholder in all sectoral and cross-sectoral vulnerability assessments; Key stakeholder in weather and climate observations and climate modelling and projections; Responsible for day-to-day forecast for the general public of the Republic of Mauritius as well as for aviation and marine industry;
<p>Ministry of Land Transport and Light Rail</p> <ul style="list-style-type: none"> National Land Transport Authority (NLTA) Traffic Management and Road Safety Unit (TMRSU) National Transport Corporation (NTC) Metro Express Metro Express Limited (MEL) <p>(f) Page 51, the NLTA is neither responsible for shipping nor monitoring marine pollution by vessels;</p>	<p>NLTA</p> <ul style="list-style-type: none"> Regulatory body for Land Transport and Light Rail; Responsible for developing the GHG inventory for the transport sector; Responsible for proposing nationally appropriate mitigation actions in the transport sector; <p>TMRSU</p> <ul style="list-style-type: none"> Ensuring that the road system efficiently meets the economic needs of the country and is safe for all road users. <p>NTC</p> <ul style="list-style-type: none"> Body corporate to operate public transport services in Mauritius <p>MEL</p> <ul style="list-style-type: none"> Provide for a multimodal transportation system Metro Express Light Rail Transit in Mauritius.
<p>Ministry of Health and Wellness</p>	<ul style="list-style-type: none"> Human diseases Climate-related health <p>The Ministry is responsible to:</p> <ul style="list-style-type: none"> enhance the health status of the population; improve the quality of health care delivery with a view to increasing patients' satisfaction; enhance social equity through the provision of a wider range of health services to the whole population; and ensure that the health sector is consolidated and that the health services remain accessible to every citizen.
<p>Ministry of Social Security and National Solidarity</p>	<ul style="list-style-type: none"> Promotion and enhancement of social protection and national solidarity Empowerment of persons with disabilities, elderly persons and local communities to enhance their quality of life.
<p>Ministry of Industrial Development, SMEs and Cooperatives</p> <ul style="list-style-type: none"> Industrial Development Division SMEs Division Cooperatives Division Mauritius Standards Bureau 	<p>The Ministry has a vision to develop an innovation-led industrial sector; conducive commercial environment; and effective protection of consumers. To achieve this vision, the ministry seeks, among others, to support green, socially responsible and quality initiatives in enterprises.</p> <ul style="list-style-type: none"> The Industrial Development Division acts as a facilitator and catalyst for the development of a resilient, vibrant and competitive manufacturing sector with a view to fostering employment creation and wealth generation for higher economic growth. The SMEs Division is responsible for the design and formulation of policies and schemes while ensuring that there is appropriate and adequate provision of support and facilities to existing enterprises as well as encouraging creation of new businesses. The Cooperatives Division facilitates the promotion of

	<p>diversified, emerging and innovative cooperatives and involvement of more young persons and women in the development, consolidation and advancement of the cooperative movement.</p> <ul style="list-style-type: none"> • The Ministry also manages <ul style="list-style-type: none"> ○ an Industry Observatory that covers competitiveness and productivity, and ○ the Leasing Equipment Modernisation Scheme for the purchase of new equipment and machinery
Ministry of Education, Tertiary Education, Science and Technology	<p>The vision of the Ministry is to create the next generation of forward-looking and innovative leaders contributing to the transformation of the Republic of Mauritius into a high ranking, prosperous nation. One of its objectives is to foster innovation and to generate new knowledge for the socio-economic and sustainable development of the nation.</p> <ul style="list-style-type: none"> • The Ministry has the vocation to promote the development of curricula (primary and secondary education) that includes climate change, its impacts, and means of mitigation and adaptation; • Tertiary institutions already carry out research on climate change.
Ministry of Gender Equality and Family Welfare	<p>The Ministry carries out sensitisation campaigns related to climate change adaptation and mitigation, with special focus on gender-differentiated impacts of CC; The active participation of the Gender Unit and the National Women's Council are called for, as and when required. The Ministry has also under its purview the National Children's Council, the Social Welfare Division and the Sugar Industry Labour Welfare Fund (SILWF) which can cater for the sensitisation campaigns for children and at the level of the community.</p>
Statistics Mauritius	<ul style="list-style-type: none"> • Provide access to timely and high quality statistical data for carrying out inventory, mitigation and adaptation analyses; • Key institution for the successful implementation of BUR on a biennial period, as well as institutionalizing the relevant and appropriate IPCC guidelines and methodologies for inventory statistical data analyses;
NDRRMC <i>Under the aegis of the Ministry of local Government and Disaster Risk Management</i>	<ul style="list-style-type: none"> • Coordinate and monitor the implementation of disaster risk reduction; • Management activities as per the National Strategic Framework and National Plan;
Rodrigues Regional Assembly	<ul style="list-style-type: none"> • Take decisions and to carry out the functions of the regional government • provide support in carry out all aspects of the INC and NIR for the island of Rodrigues
NGOs (e.g. MACOSS, Mauritian Wildlife Foundation, Mauritius Marine Conservation Society, Reef Conservation, Association pour le Développement Durable, ADD, etc...)	<p>Several NGOs are active in various areas of interest, including marine and terrestrial biodiversity conservation; research on climate and non-climate impacts on biodiversity and ecosystem health. The NGOs are also active in carrying out public sensitisation campaigns.</p> <ul style="list-style-type: none"> • MACOSS is the umbrella organisation for NGOs. It seeks to promote social and community development and voluntary actions through NGOs. It also strengthens its members by initiating communication and collaboration and networking among NGOs and between NGOs and Government and the private sector
Private Sector (e.g. JEC, MCCI, MEXA, AHRIM, IPPs, MSPA, MSA, MCA ...)	<p>The private sector is directly involved in climate change mitigation both from the perspective as end users of energy (e.g. transport; manufacturing sector; commercial sector, etc.) and as producers of electricity (IPPs) and retailers of fossil fuels (e.g. gasoline and diesel for the transport sector)</p> <p>Also, several private organizations, especially those operating in the cane industry, have data, methodologies and tools to assess changes in LULUCF.</p>

e. Institutional Capacity Assessment

86. Given the previous records of NC/BUR submissions, the will of successive Governments to actively participate and to follow up on the implementation of the Paris Agreement and its Nationally Determined Contributions (NDCs) and the pledges and commitment of Government's undertakings (e.g. introduction of a CC Act to strengthen and improve governance, integrating activities into national planning and budgeting activities, development and implementation of policies and strategies for mitigation and adaptation to the adverse effects of climate change; see also paragraphs 19 to 27 above), the ranking applicable to ROM is **4** i.e. *“Designated institution(s) has an organizational unit with standing staff with some capacity to coordinate and implement Convention reporting requirements. Institution(s) has clear mandate or authority to coordinate activities under Convention reporting, and activities are integrated into national planning and budgeting activities.”* As a result of its missions, the Department of Climate Change of the Ministry of Environment, Solid Waste Management and Climate Change is therefore the designated institution with staff capable of coordinating and implementing the requirements of the Convention. The Permanent Secretary of this ministry is the Focal Point of the UNFCCC.

SECTION 3: Project Objectives, Activities, Outputs, and Indicators

a. Project Objectives

About NC4 PIP

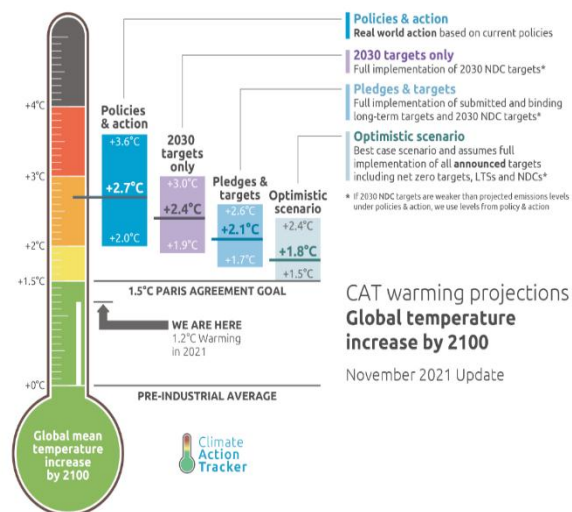
87. The purpose of this assignment is to prepare the Fourth National Communication - Project Implementation Plan (NC4 PIP) of the ROM.
88. The objective of this project is to undertake national stocktaking and stakeholder consultations to review work carried out so far under climate change enabling activities, identify gaps and propose relevant activities to be undertaken within the framework of preparing the NC under the UNFCCC. The preparation process of the NC4 PIP should identify (a) areas of synergy with related programmes and institutions, (b) how the NC will build on other on-going enabling activities, relevant regional projects, and national activities under other relevant international; conventions; and (c) major challenges ranging from cross sectoral assessments to mainstreaming climate change into National Development Planning frameworks and national processes.
89. A stocktaking exercise was carried out to identify and prioritize relevant reports and technical studies to be considered and analysed for the preparation and implementation of this project. A comprehensive list of relevant documents, that include guidelines from the UNFCCC and training materials for the preparation of NC/BUR, is provided in the reference section of this report.
90. Relevant key stakeholders in the climate change and development context were identified, and consultations were carried out, to gather information relevant to the various components of the NC. Consultations were made primarily on a bilateral basis. This participatory approach provides opportunities to make use of lessons learnt from previous national communications, and the ensuing validation process contribute to an improved ownership of the proposed methodologies for the NC.
91. This project document has been prepared as per the template provided by the United Nations Environment Programme (UNEP). It takes on board the findings from the stocktaking exercise and the stakeholder consultations, and is in line with the Government priorities, as well as with the UNEP, Global Environment Facility (GEF) and UNFCCC NC guidelines. The Republic of Mauritius has received a grant funding from GEF, through UNEP, to prepare the fourth NC.

About NC4

92. The objective of the NC4 PIP project is to prepare the grounds that will lead to the submission of the Fourth National Communication (NC4) to the UNFCCC. The project objective will be achieved with the

fulfillment of the following outcomes, which are in line with the GEF's climate change mitigation strategic objective (SO-6) under GEF-7: Enabling Activities: Support enabling activities and capacity building under the Convention. The outcome is: Completed climate change enabling activities under the UNFCCC.

93. The primary objective of the NC4 project is to enable the Republic of Mauritius to honour its commitments as a non-Annex 1 Party of the United Nations Framework Convention on Climate Change by preparing and submitting its Fourth National Communication (NC4) while strengthening the institutional and streamlining the operational framework for the implementation of the said Convention. This will also facilitate the process of integrating CC issues into environmental planning and national policies, thereby enabling the Republic of Mauritius to be more resilient to climate hazards and their impacts and to decrease its share of global emissions. One should not only treat it as an environmental issue, but also as a sustainable development issue.
94. The NC4 project will be prepared in accordance with the UNFCCC Guidelines for National Communications in order to fulfill ROM's obligations to the UNFCCC (Article 12), and also in accordance to the GEF-7 strategic intervention area, on climate change mitigation, in its objective 3: "to promote favorable conditions for integrating mitigation concerns into sustainable development strategies". Program 5 of this goal aims, with the support of the sustainable development program, to integrate climate considerations by 2030, in particular mitigation measures and the sustainable development goals (SDGs) into the national planning process.
95. The NC4 project will contribute to the global effort to better comprehend the sources and sinks of greenhouse gases, the potential impacts of climate change, and provide effective measures to quickly achieve the central objective of the Paris Agreement which is its long-term temperature goal to hold global average temperature increase to "well below 2°C above preindustrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels". This is referred to by the CAT as the 1.5°C Paris Agreement goal.



96. The NC4 project will identify proposals for projects related to climate change, eligible for additional funding by the donor community or co-funding by the GEF, other multilateral or bilateral organizations,

and eligible for funding, including under the Clean Development Mechanism (CDM) of the Kyoto Protocol as well as any other global economic mechanisms focused on climate change mitigation, in accordance with the principles of the Convention and the provisions of the post Kyoto period.

97. In addition, the NC4 project will help to build awareness and general knowledge on climate change related issues and enhance information exchange for dialogue and cooperation among all relevant actors, including government, non-government sectors, academic and private, in accordance with Article 6 of the Paris Agreement that recognizes that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.
98. In accordance with Articles 4 and 12 of the Convention, ROM is required to report to the Conference of Parties (COP) of the UNFCCC on a regular and continuous basis, on its actions to fulfill its commitments vis-à-vis the UNFCCC. Therefore, the immediate objective of this project is to facilitate the development of the Fourth National Communication (NC4) of ROM on climate change.
99. For this, a number of components will be developed and each component will include a set of activities in accordance with the guidelines for the development of NCs by non-Annex I Parties as stipulated in Decision 1/CP.16 and Decision 2/CP.17:
- National circumstances and Institutional arrangements;
 - National inventory of anthropogenic sources and sinks of all greenhouse gases (GHGs) not controlled by the Montreal Protocol, including a national inventory report (NIR) (NC/BUR) for the period 1990-2021/22 utilizing the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the latest IPCC updates; VA&A of the impacts of climate change for vulnerable sectors as well as vulnerable groups and the impact of climate change on livelihoods. Measures identification to facilitate adequate adaptation to climate change;
 - Programmes containing measures to mitigate climate change;
 - Constraints and gaps, and related financial, technical and capacity needs;
 - Other information relevant to Convention achievement objective including information on gender and climate change;
 - Technical assistance;
 - Compilation and production of NC4;
 - Project Management;
 - Stocktaking assessment and institutional arrangements for preparation of subsequent NC and BTRs;
 - Monitoring, evaluation and reporting.
100. This NC4 PIP Project will make it possible to:
- set up the project coordination team;
 - analyze the national context;
 - update the NCs and institutional arrangement;

- carry out inventory studies of GHG emissions by sources and absorption by their sinks;
- carry out vulnerability studies and propose a program of adaptation measures adapted to climate change;
- carry out studies to mitigate GHG emissions and develop policies and measures to mitigate climate change in sectors with high potential for GHG emissions;
- provide other information relevant to achieving the objective of the Convention;
- inform, educate, communicate and raise public awareness;
- provide information on gender and climate change;
- improve the national system of systematic observation and research on climate change;
- continue to set up a national measurement, reporting and verification (MRV) system;
- identify constraints, gaps and financial, technical and capacity building needs and assistance received;
- strengthen the institutional, human and technical capacities of ROM to integrate concerns related to climate change into national and sectoral development programs and plans;
- update the implementation strategy of the UNFCCC on the basis of new developments;
- prepare and present the National Inventory Report (NIR), the Fourth National Communication (NC4) to the UNFCCC.

101. NC4 preparation will rely on existing expertise in the country – key stakeholders and local experts recruited. Mobilization of local experts is a strategy for sustaining the knowledge in the related areas and therefore NC4 preparation relying on existing expertise in the country is strongly recommended. This will also foster internal networking of national experts. Technical assistance will be provided by local experts whenever possible.

102. The project will hire international and local consultants.

103. The previous experience in institutional and technical capacity building in the area of Climate Change will be sustained and leveraged to support the preparation of the NC4 exercise.

104. Partnership with governmental institutions, international organizations, academia and NGOs will be utilized and improved by bringing more stakeholders on board and building an emerging partnership with the private sector that is crucial for promoting investments of cleaner technologies in the country.

105. In implementing the different activities, the project will follow the international adopted guidelines and use of existing national methodologies and tools wherever available.

Stocktaking and stakeholder consultations

106. In accordance with the recommendation of the GEF Operational Procedures for the Expedited Financing of National Communications from non-Annex I Parties (GEF, 2003), and in order to better prepare the project proposal for the preparation of the Fourth National Communication, the project will go through a process of participatory stakeholder consultations by various consultants and technical teams.

107. The aims of the project are to identify relevant individuals and institutions and organize stocktaking and stakeholder consultation on the anthropogenic emissions of Greenhouse Gases (GHGs) in Mauritius as well as stakeholders in the vulnerable sectors and sectors involved in mainstreaming climate change issues. This survey will help in identifying Climate Change related activities being implemented or completed as well as needs and gaps. Results from this survey will help in gathering information and data for the preparation of the National Communication on Climate Change for Mauritius. The survey will also describe existing institutional arrangements relevant to the preparation of the NC4.
108. In order to successfully complete the above components of the NC4 project, lessons learned from past and on-going initiatives will be applied. In the specific case of on-going activities, synergies will be sought in order to avoid duplications and to fully capitalize on complementarities.

b. Activities, Outputs and Indicators

109. It is planned to recruit highly skilled and experienced International Consultants (or national consultants with international experience). These Consultants will work towards the deliverables of core chapters of the NC4 report - see Table III.1. A GHG Inventory Expert, assisted by Local Consultant(s), would advise on the compilation of GHG inventory in all the sectors mentioned. A Mitigation Expert will assess the mitigation aspects in all the key sectors of Energy Industries, IPPU, Transport, AFOLU and Waste. A VA&A Expert, assisted by Local Consultant(s), will assess the vulnerability and adaptation to climate change and variability for the eight priority sectors identified. Finally, an International Consultant will be recruited to address 'Constraints and Gaps, and related Financial, Technical and Capacity Needs'.
110. The list of recommended activities to achieve the proposed expected outcomes and outputs, and the associated indicators are provided in Table III.2.
111. The NPC will have the technical responsibility to prepare the following chapters besides the responsibility of project coordination:
- National Circumstances and IA
 - CC and Gender issues
 - Technology Transfer & Development (with inputs from VA&A and Mitigation International Consultants)

The STM Intern will support the NPC in the above responsibility.

Therefore, the salary of the NPC will be drawn from BL 1101, 1201 and 1206.

Table III.1: NC4 Report of the ROM

A: Overall organisation for the preparation of the different chapters under the NC4

Responsibility	No. of Chapters	Chapters
NPC	3	1, 6, 11
Consultants	4	2, 3, 4, 12
TWG	5	5, 7, 8, 9, 10

B: Format of the NC4 Report of the ROM

		Chapter Preparation: Contributors	Fund Earmarked (USD)
	Table of Contents, Foreword, Acknowledgements, Contributors, List of Tables, List of Figures, Acronyms & Abbreviations	Editor and NPC	<ul style="list-style-type: none"> • Monthly Salary of NPC: 1787.5 (Total fund earmarked for NPC – 64350) • Total fund earmarked for Editor: 8000
E.S.	Executive Summary	Editor	
Chapter 1	National Circumstances and Institutional Arrangements <i>Subsections on:</i> <ul style="list-style-type: none"> • <i>National Circumstances</i> • <i>Institutional Arrangements</i> 	NPC (with the assistance of STM with assigned duties of PA) <ul style="list-style-type: none"> • Members of TWG <ul style="list-style-type: none"> • Provide input for their respective sectors • Provide comments on draft chapter prepared by NPC 	<ul style="list-style-type: none"> • Fund earmarked for TWG Inputs: 3000 • Fund earmarked for NPC Activities which form part of his/her monthly salary: 18500
Chapter 2	National GHG Inventory <i>Subsections on:</i> <i>Energy Industries, Transportation, Energy Other Sector, Waste, Agriculture, Forestry and Other Land Uses, and Industrial Processes and Product Use (IPPU) Sector</i>	<ul style="list-style-type: none"> • International Consultant for GHG Inventory • International Consultant for development and refining of land use matrices • Local consultant • Quality Assurance Expert • Data compilation and Data entry in software by TWG under guidance of Consultants • Members of TWG <ul style="list-style-type: none"> ➢ Provide input for their respective sectors ➢ Provide comments on draft chapter prepared by Consultants 	<ul style="list-style-type: none"> • IC and Local Consultant GHG Inventory : 48 900 • IC for land use matrix : 8000 • Quality Assurance Expert : 6000 • Funding earmarked for data entry: 20000 • Fund earmarked for TWG Inputs: 8500
Chapter 3	Vulnerability and Adaptation Assessment and Adaptation Measures for ROM <i>Subsections on:</i> <i>Agriculture; Fisheries and Marine Ecosystem and Bio-diversity; Terrestrial Ecosystem and Biodiversity; Infra-structure; Human Health; Coastal Zone; Water; Tourism</i>	<ul style="list-style-type: none"> • International Consultant for VA&A • Local consultant(s) • Mauritius Meteorological Services to undertake climate change projections and report on findings • Members of TWG <ul style="list-style-type: none"> • Provide input for their respective sectors • Provide comments on draft chapter 	<ul style="list-style-type: none"> • VAA International and Local Consultants: 76 300 • Funding earmarked for Met Services: 8500 • Fund earmarked for TWG Inputs: 7500

		prepared by Consultants	
Chapter 4	Mitigation measures for ROM	International Consultant for MM <ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter prepared by Consultants 	<ul style="list-style-type: none"> IC for Mitigation : 62 500 Fund earmarked for TWG Inputs: 7500
Chapter 5	Integration of CC consideration into social, economic and environmental policies and actions	<ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter prepared by small editing team Compilation and editing by Chair of TWG and 2 members 	<ul style="list-style-type: none"> Fund earmarked for TWG Inputs and Activities: 5500 Funding earmarked for TWG editing team: 2000
Chapter 6	Technology Transfer & Development	NPC (with the assistance of STM) with inputs from Mitigation and VAA International Consultants <ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter prepared by NPC 	<ul style="list-style-type: none"> Fund earmarked for TWG Inputs: 3000 Fund earmarked for NPC Activities which form part of his/her monthly salary: 4500
Chapter 7	CC Research and Systematic Observations <i>Subsections on:</i> <ul style="list-style-type: none"> <i>Systematic Observations</i> <i>Research</i> 	<ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter prepared by small editing Team Compilation and editing by Chair of TWG and 2 members 	<ul style="list-style-type: none"> Fund earmarked for TWG Inputs and Activities: 5500 Funding earmarked for editing team: 2000
Chapter 8	Education, Training and Public Awareness	<ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter prepared by small editing team Compilation and editing by Chair of TWG and 2 members 	<ul style="list-style-type: none"> Fund earmarked for TWG Inputs and Activities: 5500 Funding earmarked for editing team: 2000
Chapter 9	Capacity Building	<ul style="list-style-type: none"> Members of TWG <ul style="list-style-type: none"> Provide input for their respective sectors Provide comments on draft chapter 	<ul style="list-style-type: none"> Fund earmarked for TWG Inputs and Activities: 5500 Funding earmarked for editing team: 2000

		<p>prepared by small editing team</p> <ul style="list-style-type: none"> • Compilation and editing by Chair of TWG and 2 members 	
Chapter 10	Knowledge, Information Sharing & Networking	<ul style="list-style-type: none"> • Members of TWG <ul style="list-style-type: none"> • Provide input for their respective sectors • Provide comments on draft chapter prepared by small editing team • Compilation and editing by Chair of TWG and 2 members 	<ul style="list-style-type: none"> • Fund earmarked for TWG Inputs and Activities: 5500 • Funding earmarked for editing team:2000
Chapter 11	Gender & CC	<p>NPC (with the assistance of STM)</p> <ul style="list-style-type: none"> • Members of TWG <ul style="list-style-type: none"> • Provide input for their respective sectors • Provide comments on draft chapter prepared by NPC 	<ul style="list-style-type: none"> • Fund earmarked for TWG Inputs: 3000 • Fund earmarked for NPC Activities which form part of his/her monthly salary: 4500
Chapter 12	Constraints and Gaps, and Related Financial, Technical and Capacity Needs (CG&RFTCN)	<p>International Consultant (CG&RFTCN) with inputs on Constraints and Gaps from the following International Consultants</p> <ul style="list-style-type: none"> ➤ GHG Inventory ➤ Mitigation ➤ VAA • Members of TWG <ul style="list-style-type: none"> • Provide input for their respective sectors • Provide comments on draft chapter prepared by Consultant 	<ul style="list-style-type: none"> • IC: 15300 • Fund earmarked for TWG Inputs: 3000
	References		
	Appendices		

112. To build sustainability in reporting, the remaining chapters will be prepared by respective members from the TWGs. For timely submission of the chapters and reports, all members of these TWGs will provide write up for the preparation of the respective chapters and a small team comprising of the Chair and 1 or 2 members will provide editorial assistance. Funds have thus been earmarked for the write up as well as for the compilation and editing of these different chapters.

113. A Quality Assurance Expert will be recruited to look into the quality aspect of the National Inventory Report. The TOR for the Quality Assurance Expert and Editor is given in Appendix 2F and 2G, respectively.

114. For GHG Inventory, members of the TWG will be responsible for data compilation and data entry in the IPCC software under the guidance of the Consultants. Funding to the tune of USD20,000 will be earmarked for this exercise. This is important in order to build sustainability in the reporting exercise.

115. Expertise from the Mauritius Meteorological Services will be sought for climate modelling; more

particularly, for the coming up of regional scenarios of climate change, at a maximum of 2km scale, applying dynamic downscaling, and at sub-km scale using statistical downscaling. Activities 3.1.1, 3.1.2 and 3.3.1 under Table III-2 will be undertaken by the Mauritius Meteorological Services. Funding has been earmarked for this exercise.

116. An Editor will be recruited to compile, edit and finalise the NC4 report.

117. **Stocktaking assessment conducted and institutional arrangements for preparation of subsequent NC/BUR described**

Upon completion and submission of NC4 to the UNFCCC, the country team will undertake a self-assessment and stocktaking exercise for the preparation of subsequent NC/BTR. The stocktaking and self-assessment phase will be initiated in parallel to the request for GEF funding for subsequent NC/BTR. The self-assessment and stocktaking report will include an analysis of gaps identified in the work carried out under previous climate change enabling activities, lessons learned during previous NC4/BUR1, proposed strategies for increasing synergies with related programmes and institutions, improving engagement of relevant stakeholders and their uptake of climate information.

Table III-2: Results framework for the NC4 project of ROM

(where applicable, indicators include Notes of Meetings, Quarterly Reports and Annual Progress Reports)

Components
Outcomes
Outputs

		Activities	INDICATORS
1. National circumstances and institutional arrangements			
		Report on the National Circumstances of ROM completed	Inception Report National Circumstances and Institutional Arrangements Chapter for inclusion in NC4 Report be available.
		1.1 Report on National Circumstances of ROM completed	
		1.1.1 Organize the national inception workshop on launching the NC4 Project in Mauritius 1.1.2 Prepare a Report on national circumstances, development priorities, objectives and circumstances ; impacts of climate change on priority sectors and response measures;	
		Updated report on Institutional Arrangements of ROM	
		1.2 Report on Institutional Arrangements for preparing national communications	
		1.2.1 Prepare a Report on Institutional Arrangements for preparing communications continuously ;	
		1.2.2 Propose measures for improvement;	
		1.2.3. Prepare a chapter on National circumstances and institutional arrangements for inclusion in the NC4 report	

2. National Greenhouse Gas (GHG) Inventories			
		National inventory of GHGs for the period 1990 to 2021 (or 2022 if data is available) utilizing the latest IPCC Guidelines supplemented as far as possible by the latest Good Practice Guidance (GPG) and the GPG on Land Use, Land Use Change and Forestry (LULUCF). With recalculations from 1990-2016. Then NIR and the NC4 chapter will be 1990 - 2021/22.	
		2.1. Strengthened National GHG Inventory System	
		2.1.1. Review the current Institutional Arrangement for the smooth and regular development of GHG inventories and review any changes in processes and responsibilities of institutions;	National GHG Inventory System strengthened and Archiving system developed under the BUR1 updated;
		2.1.2. Review the raw data collection process and recommend measures to facilitate the computation of data needed for entry in the IPCC software;	
		2.1.3. Undertake quality control and quality assurance exercise;	
		2.1.4. Carry out comprehensive documentation of all data, methodologies and quality control effected;	
		2.1.5. Recommend measures to address existing barriers to strengthen the National GHG Inventory System;	
		2.1.6. Update the archiving system developed under the BUR1;	
		2.2. Strengthened human Capacity for Undertaking National GHG Inventory	
		2.2.1.Capacity building on latest IPCC Guidelines for GHG Inventory with special emphasis on uncertainty assessment as per the latest Good Practice Guidance requirements;	Training Reports
		2.2.2. Capacity building on latest IPCC Software for GHG Inventory (including hands on training) ;	
		2.2.3. Participation in the sub-regional/regional/international training workshops/meetings on GHG Inventories;	
		2.3. Increased accuracy of GHG Inventory for relevant sectors where applicable	

	2.3.1. Undertake necessary steps for inclusion of country specific emission factors developed under the BUR1 as well as those developed for the energy sector by the University of Mauritius in the IPCC Emission Factor Database;	Consistent land-use matrices and refine land representation for the LULUCF developed;
	2.3.2 Develop consistent land-use matrices and refine land representation for the LULUCF and enhance capacity building through training on the same;	
	2.3.3 Assess and reduce the level of uncertainty associated with the inventory data through the use of the latest IPCC Good Practice Guidance and other appropriate methodologies, including checks for data inconsistencies arisen from BUR1. Develop and implement Tier II methodology as far as possible ;	
	2.3.4 Reconcile yearly historical data, including checks for data inconsistencies arisen from BUR 1 for GHG inventory sectors;	
2.4.	National GHG Inventory Report for the period 1990 – 2021 (or 2022 if data available) including the revised GHG inventories for the period 1990 – 2016	
	2.4.1 Collection of activity data and information from relevant organisations to conduct GHG inventory for key direct GHG emissions as well as indirect GHG emissions, wherever possible;	Database for national activity data, emission factors and information for all source categories;
	2.4.2. Compute GHG inventory in each sector and undertake re-calculations wherever applicable to ensure consistency in the GHG Inventory for the period 1990 to 2021 (or 2022 if data available);	
	2.4.3. Prepare and report on a database for national activity data, emission factors (either country specific emission factors or IPCC default emission factors) and information for all source categories, including recommendations for further improvements;	NIR Validation Workshop Report;
	2.4.4. Prepare a National GHG Inventory for the period 1990 – 2021 (or 2022 if data available); and circulate for peer review and comments	National Inventory Report (NIR) be available for period extending till end of 2021 (or 2022 if data is available);
	2.4.5. Prepare a summary for inclusion as NC4 chapter;	
	2.4.6. Organise a national stakeholders' workshop to validate the NIR;	Chapter in NC4.

3. Measures to facilitate adequate adaptation to climate change		
CC Impacts and vulnerability assessments and adaptation measures.		
3.1	Improved climate change projections with the use of advanced and updated climate change models	
	3.1.1. Database and detailed analysis of regional scenarios of climate change, at a maximum of 2 km scale, applying dynamic downscaling, and at sub-km scale using statistical downscaling. The effort is to use the latest available high resolution scale;	Regional scenarios of climate change and projections at the highest resolution scale is available.
	3.1.2 Prepare a report on the climate change projections and a summary for inclusion in the NC4	Report and Summary integrated in NC4 report
3.2	Steps undertaken to facilitate adequate adaptation to climate change	
	3.2.1 Report on past climate change vulnerability assessment undertaken in different adaptation sectors including work undertaken in terms of policy framework;	Vulnerability Assessment & Adaptation report; Chapter in NC4 report.
	3.2.2 Undertake a climate change vulnerability assessment in priority sectors and document findings including tools, methodologies and climate change scenarios used;	
	3.2.3 Evaluate current strategies and measures for adapting to climate change;	
	3.2.4 Propose adaptation options including socio-economic implications for priority sectors;	
	3.2.5 Describe initiatives (policy frameworks, National Adaptation Plans, etc) that need to be put in place for developing and implementing adaptation strategies;	
	3.2.6 Prepare a chapter on Measures to facilitate adequate adaptation to climate change for inclusion in the NC4 report	
3.3	Strengthened capacity to undertake vulnerability assessment	

	3.3.1 Undertake capacity building of stakeholders on the use of advanced and updated climate change models for improved climate change projections;	Training Reports
	3.3.2 Undertake capacity building on the tools, methodologies and guidelines for climate change vulnerability assessment in key adaptation sectors including the associated uncertainties;	
	3.3.3 Participation in the sub-regional/regional/international training workshops/meetings on Vulnerability Assessment and Adaptation	

4. Measures to mitigate climate change		
Measures to mitigate climate change.		
4.1	Increased understanding of mitigation policies, strategies and measures implemented	
	4.1.1 Sectoral stocktaking of policies, strategies and actions (PSA) implemented for climate change mitigation;	Report on Implemented PSAs for CC Mitigation report.
	4.1.2 Calculation and assessment of emission reductions for current mitigation actions against Business As Usual (BAU) and Nationally Determined Contributions (NDC) targets;	
4.2	Increased understanding of planned mitigation policies, strategies and measures	
	4.2.1 Sectoral stocktaking of planned policies, strategies and actions for mitigation that would be implemented;	Report on Projected PSAs for CC Mitigation report.
	4.2.2 Calculation of emission reduction for planned and potential mitigation actions;	
4.3	New/Potential mitigation measures and financial needs identified and models developed	
	4.3.1 Identification and prioritization of new/potential mitigation measures to be included in the next iteration of the NDC;	Report on Modelled and costed Mitigation Measures.
	4.3.2 Review and develop mitigation scenarios/models for new/potential mitigation measures;	
	4.3.3 Review and assess the financial needs of mitigation measures;	
4.4	Increased understanding of barriers and constraints to address climate change mitigation	
	4.4.1 Identification of barriers and constraints for conducting mitigation analysis and formulate possible solutions;	Report on Barriers and Constraints to Mitigation.
4.5	Strengthened capacity for climate change mitigation	
	4.5.1 Capacity building on identification and prioritization of mitigation measures;	Training Reports.
	4.5.2 Capacity building on mitigation assessment and analysis and quantification of GHG emission reduction potential;	
	4.5.3 Capacity building on Carbon Markets;	
	4.5.4 Capacity building on the development of grid emission factor;	
4.6	Report on measures to mitigate climate change	
	4.6.1 Comprehensive detailed technical report on measures to mitigate climate change inclusive of a non-technical executive summary;	Climate change mitigation report;
	4.6.2 Prepare a chapter on measures to mitigate climate change for inclusion in NC4 report;	Chapter in NC4.

5. Other information relevant to Convention achievement objective including information on mainstreaming cross-cutting issues

5A: Integration of Climate Change consideration into social, economic and environmental policies and actions

Sustainable Economic Planning and Development (SEPD)	
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5A.1 Increased capacity to integrate climate considerations		Report on Integration of CC considerations including linkages between DRR and CCA, in national development planning; Training report; Chapter in NC4
	5A.1.1. Conduct gap analysis regarding ability to integrate CC issues including linkages between DRR and CCA, in national development planning;	
	5A.1.2. Reporting on measures taken to integrate CC considerations into sustainable development policies and actions;	
	5A.1.3. Preparation of the chapter on Integration of CC concerns into social, economic and environmental policies and actions to be included in the NC4;	

5B: Technology Transfer and Development		
A developed Plan and Strategy for the implementation of activities relating to technology transfer and development based on previous and ongoing interventions, dealing with the development and transfer of ecologically sound technologies and know-how and on access to these technologies by reconciling existing legal and economic instruments and mechanisms to facilitate technology transfer of the economy.		
5B.1 Increased ability to develop and implement environmentally sound technology transfer		
	5B.1.1. Carry out a SWOT analysis to the development and transfer of technologies;	Report on development and transfer of environmentally sound technology with SWOT Analysis and Technical Sheets; Chapter in NC4.
	5B.1.2. Report on environmentally sound technology access and transfer, and on measures related to technology transfer promotion- prioritized according to well-defined criteria in the fight against climate change;	
	5B.1.3. Set up a database of environmentally sound technologies using the EST information system (ESTIS) developed by the UNEP International Centre for Environmental Technology (IETC) for monitoring and evaluation, its impact and its potential for deployment;	
	5B.1.4. Technological action plans with capacity building needs developed for adaptation and mitigation to climate change in order to establish technologic sheets in priority socio-economic development sectors;	
	5B.1.5. Preparation of the chapter on technology development and transfer, in accordance with the guidelines set by Decision 17CP / 8, paragraph 42, to be included in the NC4;	

5C: Climate Change Research & Systematic Observations		
A developed Plan and Strategy for the implementation of activities relating to Research & Systematic Observations (RSO) based on previous and ongoing interventions.		
5C.1. Increased ability to collect information on climate change RSO		
	5C.1.1 Reporting on RSOs - current status and inventory of activities in the field of climate change research and systematic observations	CCRSO Report including Status, Survey, Inventory of networks and systems, Gap analysis, needs, amongst others; Chapter in NC4.
	5C.1.2. Undertaking of a needs/gaps/challenges analysis regarding RSO, including general policy, technical and financial limitations;	
	5C.1.3. Recommendations accompanied by technical sheets for costed projects to strengthen the capacity of observing systems and research structures;	
	5C.1.4. Preparation of the chapter on RSO to be included in the NC4	

5D: Education, Training and Public Awareness		
A developed Plan and Strategy for the implementation of activities relating to education, training and public awareness (ETPA) based on previous and on-going interventions.		
5D.1 Increased ETPA and understanding of climate change		
	5D.1.1 Reporting on, amongst others: <ul style="list-style-type: none"> • status of general level of awareness, awareness and understanding of CC related issues at all levels (curricular, campaigns, info centres, etc.) and of climate change ETPA policy, 	Report on Education, Training and Public Awareness; Chapter in NC4.

	<ul style="list-style-type: none"> • institutional and legal framework for public participation and access to information, • international cooperation to promote ETPA. 	
	5D.1.2 Reporting gaps, needs and priorities in ETPA	
	5D. 1.3 Recommendations to strengthen the system of information dissemination on climate change and on activities designed to enhance the participation of the relevant stakeholders in climate change	
	5D.1.4. Write a summary chapter for inclusion in the NC4;	

5E: Capacity Building

A developed Plan and Strategy for the implementation of activities relating to capacity building based on previous and on-going interventions.

5E.1 Increased capacity for key stakeholders engaged in climate change

	5E.1.1 Reporting on past and ongoing capacity building activities for key stakeholders engaged in climate change	Training Report
	5E.1.2. Complete capacity building gap analysis for key stakeholders engaged in climate change and develop a strategy as well as a plan for the future implementation of capacity building needs for the implementation of the Convention in Mauritius;	Capacity Gap analysis report NC4 report.
	5E.1.3. Prepare a chapter on Capacity-Building to be included in the NC4;	Chapter in NC4.

5F: Knowledge and Information Sharing and Networking

As complete as possible information on Knowledge and Information Sharing and Networking of ROM in the implementation of the Convention.

5F.1 Strengthened systems for knowledge and information sharing networks on climate change

	5F.1.1. Report on the current status and propose recommendations to reinforce knowledge and information sharing and networking capacities;	Knowledge and Information Sharing and Networking report;
	5F.1.2. Report on knowledge and information sharing and networking activities carried out on CC for inclusion in the NC4 report;	Chapter in NC4.

5G: Enhanced Gender mainstreaming on activities related to climate change

5G.1 Enhanced Gender mainstreaming on activities related to climate change

	5G.1.1 Report of Gender mainstreaming initiatives in climate change and recommend measures to remedy any gaps	Report of Gender mainstreaming on activities related to climate change;
	5G.1.2. Propose partnerships with institutions dealing with gender issues in the development of project documents;	Chapter in NC4.
	5G. 1.3 Write a summary chapter for inclusion in the NC4	

6. Constraints and gaps, and related financial, technical and capacity needs

As complete as possible, information on constraints and gaps, and related financial, technical and capacity needs of Mauritius in the implementation of the Convention.

6.1 Enhanced capacity to submit NCs and BTRs on a periodic basis by overcoming financial, technical and capacity barriers

	6.1.1. Complete barriers analysis for submitting NCs and BTRs on a continuous basis;	Report on barriers analysis and solutions;
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	6.1.2. Report on the planned and / or implemented activities to overcome obstacles and deficiencies associated with the implementation of activities, measures and programs and on the improvement of NCs and BTRs on a continuous basis;	Chapter in NC4.
	6.1.3. Develop a range of projects to be submitted for financing in the different sectors;	
	6.1.4. Prepare a report on financial resources, technology transfer, capacity building and technical assistance received from GEF, Annex II Parties and other developed country Parties, GCF, Adaptation Fund and bilateral and multilateral institutions for actions related to climate change and on the adequacy of financing opportunities with the current needs in ROM;	
	6.1.5. Write a summary chapter for inclusion in the NC4;	

7. Technical Assistance		
International and/or regional consultant(s) will be invited, as appropriate, to provide assistance to national team responsible for the preparation of the NC4 in specific approaches, tools and methods to be used for the planned activities under the GHG Inventories, vulnerability and adaptation assessment and mitigation assessment		
7.1 Technical assistance for preparation of NC4 provided		
	7.1.1 Technical Assistance (Engaging national/regional/international consultants) to assist in any of the following sectors of GHG Inventory, VAA and Mitigation Assessment;	Capacity building through technical assistance incorporated in relevant chapters of NC4 report.

8. Compilation and Production of Fourth National Communications of ROM to the UNFCCC		
Drafting, documentation and submission of Fourth National Communication report to UNFCCC		
8.1. Drafting, documentation and submission of NC4/NIR to the UNFCCC		
	8.1.1. Preparation of the draft NC4 (inclusive of Editor's costs) and circulation to stakeholders for consultation to seek comments;	Validation Report; NC4 report uploaded on the UNFCCC website.
	8.1.2. Publish the NC4 and NIR and prepare e-copies of the reports;	
	8.1.3. Organize the national validation conference to present the NC4 to the civil society and stakeholders;	
	8.1.4. Submission to UNFCCC Secretariat;	

9. STOCKTAKING ASSESSMENT & INSTITUTIONAL ARRANGEMENTS FOR SUBSEQUENT NC /BTR REPORT		
9.1: Stocktaking assessment conducted and institutional arrangements for preparation of subsequent NC/BTR described		
	9.1.1 Undertake a self-assessment and stocktaking exercise and prepare a summary of activities and results achieved;	A project proposal or project implementation plan for subsequent NC/BTR is available.
	9.1.2 Prepare a strategy to incorporate all relevant stakeholders, including their potential roles in the NC/BTR processes and identify key focal points in working groups to track issues arising linked to financing, constraints and gaps, technical and capacity needs;	
	9.1.3 Propose measures to strengthen and retain the existing institutional arrangement, including possible technical assistance needed, as well as strategies for increasing synergies with related programmes and institutions;	

	9.1.4 Prepare a project proposal or project implementation plan for ROM's subsequent NC/BTR report;	
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10. Project Management		
	10.1.1. National Project Coordinator (FT)	Project management is ensured A financial audit report of the project is available each year
	10.1.2. STM (FT)	
	10.1.3. Accountant (Part time)	
	10.1.4. Communication Costs and Bank Charges (payment of internet, telephone, courier services) of PMT	
	10.1.5. Staff Travel	
	10.1.6. Meetings of the Steering Committee	
	10.1.7. Equip the project office (including 3 laptops, 1 laser printer) including consumables and logistics expenses for 3 years	
	10.1.8 Independent Audit of the Project	

11. MONITORING EVALUATION AND REPORTING		
	11.1.1 Monitoring, Reporting and Evaluation	Quarterly progress reports prepared and submitted to UNEP;

118. Monitoring Evaluation and Annual Audits

The objective of monitoring and evaluation framework is to ensure the collection and the availability of reliable and relevant information in real-time on the implementation of the NC4 project.

The monitoring-evaluation of NC4 will be based on the guidelines and procedures of UNEP as regards reporting and monitoring-evaluation during the execution period of the project.

The Project Management Unit (PMU) will provide quarterly expenditure and progress reports to UNEP. These reports will enable the NPC and UNEP to evaluate the progress of the project on a regular basis and identify difficulties and shortcomings with a view to overcoming them during the period of project implementation. These reports will be reviewed by UNEP for their quality and standard, comprehensiveness, and conformity to the proposed terms of reference and dates of completion. An independent financial audit will be conducted according to the UNEP rules and procedures.

The PMU will be responsible for the preparation and submission of the following reports:

Quarterly Expenditure and Progress Reports (QEPR)	<p>Reports outlining main project progress, percentage of achievement compared to agreed work plan, challenges and proposal to overcome them, list of contributors (meetings). The report will be submitted on quarterly basis and in the last quarter of each year (Quarter 4), the report will cover the whole year to summarize what was reported in Quarter 1, Quarter 2, Quarter 3 and then Quarter 4.</p> <p>UNEP will be responsible for providing the reporting template and assess the quality of the report.</p>
Quarterly Expenditure Reports (QER)	<p>The QER is a financial Report indicating the expenditure of the quarter.</p> <p>For each budget line, the part one of the report contains the total project budget, the annual budget and the cumulative expenditure from previous period and these three columns are updated each year after Quarter 4 (ending in December). Through embedded excel formulas, these report helps to calculate for each Quarter reported: the annual total expenses, the cumulative expenditure, the remaining funds not yet disbursed by UNEP.</p> <p>The following is practical information to consider for QER:</p> <ul style="list-style-type: none"> • All expenditure reports shall be reported in US\$ in line with project budget.

	<ul style="list-style-type: none"> • Reports shall be submitted on a quarterly basis as at 31 March, 30 June, 30 September and 31 December within one month of the Quarter on or before end of that month unless informed otherwise. <p>The part two of the report contains explanations where appears budget line statement and the column where reporters are required to link with Quarterly expenditures per budget line and then the last column dedicated to explain what expense was used for. Although this should be a short explanation but it should highlight what funds used for, when, frequency and any other relevant quantification.</p> <p>UNEP will be responsible for providing reporting template and assessment of the quality of the report. The template shall be signed by the project manager upon completion.</p>
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Other reports required in this section are related to Project Annual Financial Audits and final Evaluation. Details on project reporting procedures and guidelines are provided in the Project Cooperation Agreement (PCA). The financial Audit will be conducted by a legally recognized auditor of the Government, or by a commercial auditor engaged by the Government. The financial Audit will be performed according to rules and procedures of UNEP by a qualified independent audit body. The financial audit will be submitted each year. The following is practical information to consider for annual financial audit report:

- The total expenditure incurred during the year ending December shall be audited by an independent audit authority either a recognized firm of public accountants or by government auditors.
- The audit shall be reported in US dollar within 6 months on or before 30 June.
- The audit report shall contain the signature from the audit firm and an audit opinion.

SECTION 4: Project Implementation Plan and Financing

a. Project Budget

119. The total requested fund is USD 500,000 with the Government of Mauritius providing through the executing Agency, MESWMCC, an in-kind contribution of USD 296,203, as defined in the PCA. The in-kind contribution comprises items such as logistics, venue for meetings, office staff and support from management of the Ministry. The GEF Grant and in-kind co-financing breakdown for the NC4 project is summarized on Tables IV.1 and IV.2.

Table IV-1: Indicative budget for proposed activities for the preparation of Fourth National Communication of Mauritius for the period 2023 to 2025

(provision is made for 2 persons from Rodrigues to participate in all workshops)

(the total excludes USD 20000 advanced for NC4 PIP preparation)

			Activities	Budget 2023	Budget 2024	Budget 2025	Total
A. National stocktaking exercise, stakeholder consultations and PIP				20000			20000
1. National circumstances and institutional arrangements				9350	5500	10500	25350
Report on the National Circumstances of ROM completed							
1.1 Report on National Circumstances of ROM completed				6350	2500	2500	11350
			1.1.1 Organize the national inception workshop on launching the NC4 Project in Mauritius	3850	0	0	3850
			1.1.2 Prepare a Report on national circumstances, development priorities, objectives and circumstances ; impacts of climate change on priority sectors and response measures;	2500	2500	2500	7500
Updated report on Institutional Arrangements of ROM							
1.2 Report on Institutional Arrangements for preparing national communications				3000	3000	8000	14000
			1.2.1 Prepare a Report on Institutional Arrangements for preparing communications continuously ;	2500	2500	2500	7500
			1.2.2 Propose measures for improvement;	500	500	500	1500
			1.2.3. Prepare a chapter on National circumstances and institutional arrangements for inclusion in the NC4 report	0	0	5000	5000
2. National Greenhouse Gas (GHG) Inventories				39400	36150	34450	110000
National inventory of GHGs for the period 1990 to 2021 (or 2022 if data is available) utilizing the latest IPCC Guidelines supplemented as far as possible by the latest Good Practice Guidance (GPG) and the GPG on Land Use, Land Use Change and Forestry (LULUCF). With recalculations from 1990-2016. Then NIR and the NC4 chapter will be 1990 - 2021/22.				39400	36150	34450	110000
2.1. Strengthened National GHG Inventory System							
			2.1.1. Review the current Institutional Arrangement for the smooth and regular development of GHG	2000	2000	2000	6000

			inventories and review any changes in processes and responsibilities of institutions;				
			2.1.2. Review the raw data collection process and recommend measures to facilitate the computation of data needed for entry in the IPCC software;	2000	2000	2000	6000
			2.1.3. Undertake quality control and quality assurance exercise;	1000	1000	1000	3000
			2.1.4. Carry out comprehensive documentation of all data, methodologies and quality control effected;	1000	1000	1000	3000
			2.1.5. Recommend measures to address existing barriers to strengthen the National GHG Inventory System;	600	700	700	2000
			2.1.6. Update the archiving system developed under the BUR1;	600	600	700	1900
		2.2. Strengthened Capacity for Undertaking National GHG Inventory					
			2.2.1.Capacity building on latest IPCC Guidelines for GHG Inventory with special emphasis on uncertainty assessment as per the latest Good Practice Guidance requirements	3850	0	0	3850
			2.2.2. Capacity building on latest IPCC Software for GHG Inventory (including hands on training)	3850	0	0	3850
			2.2.3. Participation in the sub-regional/regional/international training workshops/meetings on GHG Inventories;	1000	1000	1000	3000
		2.3. Increased accuracy of GHG Inventory for relevant sectors where applicable					
			2.3.1. Undertake necessary steps for inclusion of country specific emission factors developed under the BUR1 as well as those developed for the energy sector by the University of Mauritius in the IPCC Emission Factor Database;	1000	1000	1500	3500
			2.3.2 Develop consistent land-use matrices and refine land representation for the LULUCF and enhance capacity building through training on the same.	5000	5850	1000	11850
			2.3.3 Assess and reduce the level of uncertainty associated with the inventory data through the use of the latest IPCC Good Practice Guidance and other appropriate methodologies, including checks for data inconsistencies arisen from BUR1. Develop and implement Tier II methodology as far as possible	3000	3000	4000	10000
			2.3.4 Reconcile yearly historical data, including checks for data inconsistencies arisen from BUR 1 for GHG inventory sectors	500	500	500	1500
		2.4. National GHG Inventory Report for the period 1990 – 2021 (or 2022 if data available) including the revised GHG inventories for the period 1990 – 2016					
			2.4.1 Collection of activity data and information from relevant organisations to conduct GHG inventory for key direct GHG emissions as well as indirect GHG emissions, wherever possible;	9000	9000	9000	27000
			2.4.2. Compute GHG inventory in each sector and undertake re-calculations wherever applicable to ensure consistency in the GHG Inventory for the period 1990 to 2021 (or 2022 if data available);	3000	3000	1000	7000

			2.4.3. Prepare and report on a database for national activity data, emission factors (either country specific emission factors or IPCC default emission factors) and information for all source categories, including recommendations for further improvements;	2000	2000	2000	6000
			2.4.4. Prepare a National GHG Inventory for the period 1990 – 2021 (or 2022 if data available); and circulate for peer review and comments		2500		2500
			2.4.5. Prepare a summary for inclusion as NC4 chapter;		1000		1000
			2.4.6. Organise a national stakeholders' workshop to validate the NIR;			7050	7050
3. Measures to facilitate adequate adaptation to climate change				28500	40100	31400	100000
CC Impacts and vulnerability assessments and adaptation measures.							
		3.1	Improved climate change projections with the use of advanced and updated climate change models	1500	2300	2700	6500
			3.1.1. Database and detailed analysis of regional scenarios of climate change, at a maximum of 2 km scale, applying dynamic downscaling, and at sub-km scale using statistical downscaling. The effort is to use the latest available high resolution scale;	1500	1500	1500	4500
			3.1.2 Prepare a report on the climate change projections and a summary for inclusion in the NC4		800	1200	2000
		3.2	Steps undertaken to facilitate adequate adaptation to climate change	27000	26600	28700	82300
			3.2.1 Report on past climate change vulnerability assessment undertaken in different adaptation sectors including work undertaken in terms of policy framework;	6000	4000	2000	12000
			3.2.2 Undertake a climate change vulnerability assessment in priority sectors and document findings including tools, methodologies and climate change scenarios used;	5000	5000	5000	15000
			3.2.3 Evaluate current strategies and measures for adapting to climate change;	3000	3000	3050	9050
			3.2.4 Propose adaptation options including socio-economic implications for priority sectors;	11000	11000	11150	33150
			3.2.5 Describe initiatives (policy frameworks, National Adaptation Plans, etc) that need to be put in place for developing and implementing adaptation strategies;	2000	3600	4000	9600
			3.2.6 Prepare a chapter on Measures to facilitate adequate adaptation to climate change for inclusion in the NC4 report	0	0	3500	3500
		3.3	Strengthened capacity to undertake vulnerability assessment	0	11200	0	11200
			3.3.1 Undertake capacity building of stakeholders on the use of advanced and updated climate change models for improved climate change projections;	0	5850		5850

			3.3.2 Undertake capacity building on the tools, methodologies and guidelines for climate change vulnerability assessment in key adaptation sectors including the associated uncertainties;	0	3850		3850
			3.3.3 Participation in the sub-regional/regional/international training workshops/meetings on Vulnerability Assessment and Adaptation;	0	1500	0	1500
4. Measures to mitigate climate change				28200	29200	28000	85400
Measures to mitigate climate change.							
		4.1	Increased understanding of mitigation policies, strategies and measures implemented	6500	6500	6500	19500
			4.1.1 Sectoral stocktaking of policies, strategies and actions implemented for climate change mitigation;	2500	2500	2500	7500
			4.1.2 Calculation and assessment of emission reductions for current mitigation actions against Business As Usual (BAU) and Nationally Determined Contributions (NDC) targets;	4000	4000	4000	12000
		4.2	Increased understanding of planned mitigation policies, strategies and measures	6000	6000	6000	18000
			4.2.1 Sectoral stocktaking of planned policies, strategies and actions for mitigation that would be implemented;	2500	2500	2500	7500
			4.2.2 Calculation of emission reduction for planned and potential mitigation actions;	3500	3500	3500	10500
		4.3	New/Potential mitigation measures and financial needs identified and models developed	6000	7000	8000	21000
			4.3.1 Identification and prioritization of new/potential mitigation measures to be included in the next iteration of the NDC;	1000	2000	4000	7000
			4.3.2 Review and develop mitigation scenarios/models for new/potential mitigation measures;	3000	3000	2000	8000
			4.3.3 Review and assess the financial needs of mitigation measures;	2000	2000	2000	6000
		4.4	Increased understanding of barriers and constraints to address climate change mitigation	2000	2000	2000	6000
			4.4.1 Identification of barriers and constraints for conducting mitigation analysis and formulate possible solutions;	2000	2000	2000	6000
		4.5	Strengthened capacity for climate change mitigation	7700	7700	0	15400
			4.5.1 Capacity building on identification and prioritization of mitigation measures;	3850	0	0	3850
			4.5.2 Capacity building on mitigation assessment and analysis and quantification of GHG emission reduction potential;	3850	0	0	3850
			4.5.3 Capacity building on Carbon Markets;	0	3850	0	3850
			4.5.4 Capacity building on the development of grid emission factor;	0	3850		3850
		4.6	Report on measures to mitigate climate change	0	0	5500	5500
			4.6.1 Comprehensive detailed technical report on measures to mitigate climate change inclusive of a non-technical executive summary;	0	0	3000	3000

		4.6.2 Prepare a chapter on measures to mitigate climate change for inclusion in NC4 report;	0	0	2500	2500
5. Other information relevant to Convention achievement objective including information on mainstreaming cross-cutting issues			9600	10700	32200	52500
5A: Integration of Climate Change consideration into social, economic and environmental policies and actions			1500	1500	4500	7500
Sustainable Economic Planning and Development (SEPD)						
5A.1 Increased capacity to integrate climate considerations			1500	1500	4500	7500
		5A.1.1. Conduct gap analysis regarding ability to integrate CC issues including linkages between DRR and CCA, in national development planning;	1500	1500	1500	4500
		5A.1.2. Reporting on measures taken to integrate CC considerations into sustainable development policies and actions;	0	0	1000	1000
		5A.1.3. Preparation of the chapter on Integration of CC concerns into social, economic and environmental policies and actions to be included in the NC4;	0	0	2000	2000
5B: Technology Transfer and Development			2000	1000	4500	7500
A developed Plan and Strategy for the implementation of activities relating to technology transfer and development based on previous and ongoing interventions, dealing with the development and transfer of ecologically sound technologies and know-how and on access to these technologies by reconciling existing legal and economic instruments and mechanisms to facilitate technology transfer of the economy.						
5B.1 Increased ability to develop and implement environmentally sound technology transfer			2000	1000	4500	7500
		5B.1.1. Carry out a SWOT analysis to the development and transfer of technologies;	1000	0	0	1000
		5B.1.2. Report on environmentally sound technology access and transfer, and on measures related to technology transfer promotion- prioritized according to well-defined criteria in the fight against climate change;	0	0	1500	1500
		5B.1.3. Set up a database of environmentally sound technologies using the EST information system (ESTIS) developed by the UNEP International Centre for Environmental Technology (IETC) for monitoring and evaluation, its impact and its potential for deployment;	1000	0	0	1000
		5B.1.4. Technological action plans with capacity building needs developed for adaptation and mitigation to climate change in order to establish technologic sheets in priority socio-economic development sectors;	0	1000	1000	2000
		5B.1.5. Preparation of the chapter on technology development and transfer, in accordance with the guidelines set by Decision 17CP / 8, paragraph 42, to be included in the NC4;	0	0	2000	2000
5C: Climate Change Research & Systematic Observations			1500	1300	4700	7500
A developed Plan and Strategy for the implementation of activities relating to Research & Systematic Observations (RSO) based on previous and ongoing interventions.						

		5C.1. Increased ability to collect information on climate change RSO	1500	1300	4700	7500
		5C.1.1 Reporting on RSOs - current status and inventory of activities in the field of climate change research and systematic observations			1500	1500
		5C.1.2. Undertaking of a needs/gaps/challenges analysis regarding RSO, including general policy, technical and financial limitations;	1000	800	700	2500
		5C.1.3. Recommendations accompanied by technical sheets for costed projects to strengthen the capacity of observing systems and research structures;	500	500	500	1500
		5C.1.4. Preparation of the chapter on RSO to be included in the NC4 ;	0	0	2000	2000
5D: Education, Training and Public Awareness			800	800	5900	7500
	A developed Plan and Strategy for the implementation of activities relating to education, training and public awareness (ETPA) based on previous and on-going interventions.					
		5D.1 Increased ETPA and understanding of climate change	800	800	5900	7500
		5D.1.1. Reporting on, amongst others: <ul style="list-style-type: none"> status of general level of awareness, awareness and understanding of CC related issues at all levels (curricular, campaigns, info centres, etc.) and of climate change ETPA policy, institutional and legal framework for public participation and access to information, international cooperation to promote ETPA, 	0	0	1500	1500
		5D.1.2 Reporting gaps, needs and priorities in ETPA;	0	0	1500	1500
		5D.1.3 Recommendations to strengthen the system of information dissemination on climate change and on activities designed to enhance the participation of the relevant stakeholders in climate change	800	800	900	2500
		5D.1.4. Write a summary chapter for inclusion in the NC4;	0	0	2000	2000
5E: Capacity Building			1000	2000	4500	7500
	A developed Plan and Strategy for the implementation of activities relating to capacity building based on previous and on-going interventions.					
		5E.1 Increased capacity for policy- decision makers and the public to engage with climate change	1000	2000	4500	7500
		5E.1.1 Reporting on past and ongoing capacity building activities for key stakeholders engaged in climate change	0	500	1000	1500
		5E.1.2. Complete capacity building gap analysis for key stakeholders engaged in climate change and develop a strategy as well as a plan for the future implementation of capacity building needs for the implementation of the Convention in Mauritius;	1000	1500	1500	4000

			5E.1.3. Prepare a chapter on Capacity-Building to be included in the NC4;	0	0	2000	2000
5F: Knowledge and Information Sharing and Networking				1500	2000	4000	7500
As complete as possible information on Knowledge and Information Sharing and Networking of ROM in the implementation of the Convention.							
		5F.1	Strengthened systems for knowledge and information sharing networks on climate change	1500	2000	4000	7500
			5F.1.1. Report on the current status and propose recommendations to reinforce knowledge and information sharing and networking capacities;	1500	2000	2000	5500
			5F.1.2. Report on knowledge and information sharing and networking activities carried out on CC for inclusion in the NC4 report;	0	0	2000	2000
5G: Enhanced Gender mainstreaming on activities related to climate change				1300	2100	4100	7500
		5G.1	Enhanced Gender mainstreaming on activities related to climate change	1300	2100	4100	7500
			5G.1.1 Report of Gender mainstreaming initiatives in climate change and recommend measures to remedy any gaps	1300	1300	1300	3900
			5G.1.2. Propose partnerships with institutions dealing with gender issues in the development of project documents;	0	800	800	1600
			5G. 1.3 Write a summary chapter for inclusion in the NC4	0	0	2000	2000
6. Constraints and gaps, and related financial, technical and capacity needs				0	6800	11500	18300
As complete as possible, information on constraints and gaps, and related financial, technical and capacity needs of Mauritius in the implementation of the Convention.							
		6.1	Enhanced capacity to submit NCs and BTRs on a periodic basis by overcoming financial, technical and capacity barriers	0	6800	11500	18300
			6.1.1. Complete barriers analysis for submitting NCs and BTRs on a continuous basis;	0	2000	2000	4000
			6.1.2. Report on the planned and / or implemented activities to overcome obstacles and deficiencies associated with the implementation of activities, measures and programs and on the improvement of NCs and BTRs on a continuous basis;	0	2000	2000	4000
			6.1.3. Develop a range of projects to be submitted for financing in the different sectors;	0	1400	2000	3400
			6.1.4. Prepare a report on financial resources, technology transfer, capacity building and technical assistance received from GEF, Annex II Parties and other developed country Parties, GCF, Adaptation Fund and bilateral and multilateral institutions for actions	0	1400	2000	3400

			related to climate change and on the adequacy of financing opportunities with the current needs in ROM;				
			6.1.5. Write a summary chapter for inclusion in the NC4;	0		3500	3500
7. Technical Assistance				4500	4500	6000	15000
International and/or regional consultant(s) will be invited, as appropriate, to provide assistance to national team responsible for the preparation of the NC4 in specific approaches, tools and methods to be used for the planned activities under the GHG Inventories, vulnerability and adaptation assessment and mitigation assessment							
			7.1.1 Technical Assistance (Engaging national/regional/international consultants) to assist in any of the following sectors of GHG Inventory, VAA and Mitigation Assessment;	4500	4500	6000	15000
8. Compilation and Production of Fourth National Communications of ROM to the UNFCCC				0	0	18000	18000
Drafting, documentation and submission of Fourth National Communication report to UNFCCC							
8.1. Drafting, documentation and submission of NC4/NIR to the UNFCCC				0	0	18000	18000
			8.1.1. Preparation of the draft NC4 (inclusive of Editor's costs) and circulation to stakeholders for consultation to seek comments;	0	0	8950	8950
			8.1.2. Publish the NC4 and NIR and prepare e-copies of the reports;	0	0	5000	5000
			8.1.3. Organize the national validation conference to present the NC4 to the civil society and stakeholders;	0	0	4050	4050
			8.1.4. Submission to UNFCCC Secretariat;	0	0	0	0
9. STOCKTAKING ASSESSMENT & INSTITUTIONAL ARRANGEMENTS FOR SUBSEQUENT NC/BTR REPORT				0	5000	5000	10000
9.1: Stocktaking assessment conducted and institutional arrangements for preparation of subsequent NC/BTR described				0	5000	5000	10000
			9.1.1 Undertake a self-assessment and stocktaking exercise and prepare a summary of activities and results achieved;	0	2000	1600	3600
			9.1.2 Prepare a strategy to incorporate all relevant stakeholders, including their potential roles in the NC/BTR processes and identify key focal points in working groups to track issues arising linked to financing, constraints and gaps, technical and capacity needs;	0	1500	1300	2800
			9.1.3 Propose measures to strengthen and retain the existing institutional arrangement, including possible technical assistance needed, as well as strategies for increasing synergies with related programmes and institutions;	0	1500	1300	2800
			9.1.4 Prepare a project proposal or project implementation plan for ROM's subsequent NC/BTR report;	0	0	800	800
10. Project Management				18483	13483	13483	45450
			10.1.1. National Project Coordinator (FT)	12283	12283	12283	36850

		10.1.2. STM Intern (FT)	0	0	0	0
		10.1.3. Accountant (Part time)	1200	1200	1200	3600
		10.1.4. Communication Costs and Bank Charges (payment of internet, telephone, courier services) of PMT	0	0	0	0
		10.1.5. Staff Travel	0	0	0	0
		10.1.6. Meetings of the Steering Committee	0	0	0	0
		10.1.7. Equip the project office (including 3 laptops, 1 laser printer) including consumables and logistics expenses for 3 years	5000	0	0	5000
		10.1.8 Independent Audit of the Project	0	0	0	0
11. MONITORING EVALUATION AND REPORTING			0	0	0	0
		11.1 Monitoring, Reporting and Evaluation	0	0	0	0
GRAND TOTAL			158033	151433	190533	500000

**Table IV-2: PROJECT FINANCING AND BUDGET:
BREAKDOWN OF GEF-FUNDS AND CO-FINANCING (US\$)**

TABLE IV.2: PROJECT FINANCING AND BUDGET: BREAKDOWN OF GEF-FUNDS AND CO-FINANCING (US \$)			
Proposed Components for Fourth National Communication (NC4)	GEF Grant	Co-Financing In-Kind	Total
National stocktaking exercise, stakeholder consultations and project implementation plan preparation (PIP)	20000		20000
National circumstances and institutional arrangements	25350		25350
National Greenhouse Gas (GHG) Inventories	110000		110000
Measures to facilitate adequate adaptation to climate change	100000		100000
Measures to mitigate climate change	85400		85400
Other information relevant to Convention achievement objective including information on mainstreaming cross-cutting issues	52500		52500
Constraints and gaps, and related financial, technical and capacity needs	18300		18300
Technical Assistance	15000		15000
Compilation and Production of National Communications Stocktaking Assessment and Institutional Arrangements for Preparation of Subsequent NCs	18000		18000
Stocktaking assessment and institutional arrangements for preparation of subsequent NC/BUR	10000		10000
Project Management	45450	296203	341653
Monitoring Evaluation and Annual Audits	0		0
Total:	500000	296203	796203

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APPENDIX 1: Budget for Preparation for the Fourth National Communication under United Nations Framework Convention on Climate Change for ROM

UNEP Budget Line		Budget 2023	Budget 2024	Budget 2025	Total
	PROJECT IMPLEMENTATION PLAN PREPARATION (PIP) Stocktaking exercise, stakeholder consultation and preparation of project implementation plan (PIP) Expenditure 2020-22	20000			20000
10	PERSONNEL COMPONENT				
1100	Project personnel				
1101	National Project Coordinator	12283	12283	12283	36850
1199	Sub-total	12283	12283	12283	36850
1200	Consultants etc				
1201	National circumstances and institutional arrangements, activities: 1.1.2, 1.2.1, 1.2.2, and 1.2.3	5500	5500	10500	21500
1202	National GHG inventories, activities: 2.1.1 to 2.1.6, 2.2.3, 2.3.1, 2.3.2 (part), 2.3.3, 2.3.4, 2.4.1 to 2.4.5	31700	32300	27400	91400
1203	Measures to facilitate adequate adaptation to climate change (NC), activities: 3.1.1, 3.1.2, 3.2.1 to 3.2.6, 3.3.1 to 3.3.3	28500	32400	31400	92300
1204	Programmes containing measures to mitigate climate change (NC), activities: 4.1.1 to 4.1.2, 4.2.1 to 4.2.2, 4.3.1 to 4.3.3, 4.4.1 and 4.6.1 to 4.6.2	20500	21500	28000	70000
1205	Constraints and gaps, and related financial, technical and capacity needs (NC/BUR), activities: 6.1.1 to 6.1.5	0	6800	11500	18300
1206	Any other information relevant to the achievement of the objective of the Convention including information on gender and climate change (NC), activities: 5A.1.1-1.3, 5B.1.1-1.5, 5C.1.1-1.4, 5D.1.1-1.4, 5E.1.1-1.3, 5F.1.1-1.2, 5G.1.1-1.3	9600	10700	32200	52500
1207	Technical assistance (NC), activities: 7.1.1-7.1.3	4500	4500	6000	15000
1208	Compilation and production of NC, activities: 8.1.1	0	0	8950	8950
1209	Stocktaking assessment and institutional arrangements for preparation of subsequent BUR/NC, activities: 9.1.1, 9.1.2, 9.1.3 & 9.1.4	0	5000	5000	10000
1299	Sub-total	100300	118700	160950	379950
1300	Administrative Support				
1301	STM Intern (in lieu of Project Assistant)	0.0	0.0	0.0	0
1302	Accountant	1200	1200	1200	3600
1399	Sub-total	1200.0	1200.0	1200.0	3600
1600	Travel on official business				
1601	10.1.5. Staff Travel	0	0	0	0
1699	Sub-total	0	0	0	0
1999	Component Total	113783	132183	174433	420400
30	TRAINING COMPONENT				
3200	Group Trainings/Workshops				

3201	1.1.1 Organize the national inception workshop on launching the NC4 Project in Mauritius	3850	0	0	3850
3202	2.2.1.Capacity building on latest IPCC Guidelines for GHG Inventory with special emphasis on uncertainty assessment as per the latest Good Practice Guidance requirements	3850	0	0	3850
3203	2.2.2. Capacity building on latest IPCC Software for GHG Inventory (including hands on training)	3850	0	0	3850
3204	2.3.2 Develop consistent land-use matrices and refine land representation for the LULUCF and enhance capacity building through training on the same.		3850		3850
3205	2.4.6. Organise a national stakeholders' workshop to validate the NIR;	0		7050	7050
3206	3.3.1 Undertake capacity building of stakeholders on the use of advanced and updated climate change models for improved climate change projections;		3850		3850
3207	3.3.2 Undertake capacity building on the tools, methodologies and guidelines for climate change vulnerability assessment in key adaptation sectors including the associated uncertainties;	0	3850	0	3850
3208	4.5.1 Capacity building on identification and prioritization of mitigation measures;	3850	0	0	3850
3209	4.5.2 Capacity building on mitigation assessment and analysis and quantification of GHG emission reduction potential;	3850	0	0	3850
3210	4.5.3 Capacity building on Carbon Markets;	0	3850	0	3850
3211	4.5.4 Capacity building on the development of grid emission factor;	0	3850		3850
3212	8.1.3. Organize the national validation conference to present the NC4 to the civil society and stakeholders;	0	0	4050	4050
3299	Sub-total	19250	19250	11100	49600
3999	Component total	19250	19250	11100	49600
40	EQUIPMENT AND PREMISES				-
4200	Non-Expendable equipment				-
4201	10.1.7. Equip the project office (including 3 laptops, 1 laser printer) including consumables and logistics expenses for 3 years	5000	0	0	5000
4299	Sub-total	5000	0	0	5000
4999	Component total	5000	0	0	5000
50	MISCELLANEOUS COMPONENT				-
5200	Reporting costs				
5202	8.1.2. Publish the NC4 and NIR and prepare e-copies of the reports;	0	0	5000	5000
5299	Sub-total	0	0	5000	5000
5300	Sundry				
5302		0	0	0	0
5399	Sub-total	0	0	0	0
5500	Monitoring and Evaluation				
5501	11.1 Monitoring, Reporting and Evaluation	0	0	0	0
5599	Sub-total	0	0	0	0
5999	Component total	0	0	5000	5000
99	GRAND TOTAL	158033	151433	190533	500000

Salary of the NPC will be drawn from BL 1101, 1201, 1206

APPENDIX 2: Terms of References (TORs)

This Appendix contains TORs relating to the establishment of the Project Steering Committee, the Project Technical Committee, relating to staff recruitment (National Project Coordinator, STM Intern (in lieu of Project Assistant) and Project Accountant), and relating to the appointment of Consultants and members of the TWGs and their subgroups, where applicable.

The project of the Fourth National Communication (NC4) on Climate Change constitutes a dynamic and flexible framework allowing ROM to promote its sustainable development. By ratifying this Convention, ROM then has undertaken to fulfill its obligations under the Convention, in particular to limit the concentration of GHGs in the atmosphere at a level which prevents any dangerous anthropogenic disturbance of the climate system.

a. PROJECT STEERING COMMITTEE

In order to ensure successful implementation of the Fourth National Communication, a Project Steering Committee (PSC), chaired by the Permanent Secretary of the Focal ministry, will have the responsibility for supervising the project implementation plan. The PSC is the framework for information exchange, consultation and monitoring of project implementation. It is the PSC that will ensure, after a national workshop, the preparation of the FULL document of the NC4 for ROM, its printing and its submission to the UNFCCC Secretariat and its dissemination. The PSC will be essentially composed of senior officials from the relevant ministries, research institutes, UNDP and NGOs and private sector.

Composition:	<p>The Project Steering Committee (PSC) will be made up of representatives of:</p> <ul style="list-style-type: none"> ● Permanent Secretary of Focal Agency (Chair) ● Government Agencies (ministries) which includes: <ul style="list-style-type: none"> ○ Ministry of Environment, Solid Waste Management and Climate Change ○ Ministry of National Infrastructure and Community Development ○ Ministry of Agro Industry and Food Security ○ Ministry of Housing and Land Use Planning ○ Ministry of Blue Economy, Marine Resources, Fisheries and Shipping ○ Ministry of Tourism ○ Ministry of Energy and Public Utilities ○ Ministry of Finance, Economic Planning and Development ○ Ministry of Local Government and Disaster Risk Management ○ Ministry of Land Transport and Light Rail ○ Ministry of Health and Wellness ○ Ministry of Social Integration, Social Security and National Solidarity ○ Ministry of Industrial Development, SMEs and Cooperatives ○ Ministry of Education, Tertiary Education, Science and Technology ○ Ministry of Gender Equality and Family Welfare ○ Ministry for Rodrigues, Outer Islands & Territorial Integrity ○ Ministry of Youth Empowerment, Sports and Recreation ● Mauritius Metrological Services ● Statistics Mauritius ● Academia ● Civil Society Organisation ● Private sector ● The Operational Focal Point of GEF ● The Focal Point of the UNFCCC ● Project Management Unit (PMU)
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Duties, responsibilities and operating rules:	<p>The Project Steering Committee will perform the following tasks:</p> <ul style="list-style-type: none"> • Provide guidance, assistance and support to the NPC and the task leaders during the implementation process of all project activities; • Monitor, evaluate and provide advice and guidance during the implementation of the project; • Ensure and facilitate data acquisition for the effective implementation of the project; • Collaborate with the Project Management Unit (PMU) in preparing the National Communication Report to be submitted to the UNFCCC secretariat; • Ensure that the development of the NC Report is in conformity with the UNFCCC guidelines; • Formulate necessary measures, where appropriate, to ensure that the proposed project activities and outputs achieve the project’s objectives while providing the necessary guidance to the various bodies; • Provide oversight responsibility to ensure a smooth transition from the current reporting to subsequent reporting and any other follow-up measures. • Review the progress of the project work plan (business plan, budget, expected results, indicators) and, to the extent possible, provide recommendations to Climate Change Committee; • Meet regularly; • Operate on the basis of consensus.
Qualification of the PSC members:	<ul style="list-style-type: none"> • Preferably have a postgraduate level in the field in question. • Have a good knowledge of climate change issues. • Have a good knowledge of the process of the implementation of the UNFCCC in ROM. • Be available.

b. PROJECT TECHNICAL COMMITTEE

A Project Technical Committee (PTC), under the chair of the Director of Climate Change, will be set up to provide operational leadership to the NC4 process and to deal principally with technical aspects of the NC4 and to support the work of the different Technical Working Groups (TWGs) and Subgroups. PTC will ensure project activities are being carried out in a timely manner.

PTC Composition:	<p>The Project Technical Committee (PTC) will be made up of:</p> <ul style="list-style-type: none"> • Director of Climate Change (Chair) • one (1) National Project Coordinator (NPC) and, • TWG Chairs (Team Leaders) and who will work permanently throughout the project. • one (1) STM Intern (who will also take the role of the Secretary).
PTC Duties:	<p>A Project Technical Committee (PTC) will:</p> <ul style="list-style-type: none"> • provide leadership to the NC4 process and to deal principally with all technical aspects of the NC4/NIR in accordance with the donor procedures and those contained in the approved project document, • coordinate all activities, provide services and carry out activities such as procurement and delivery of project inputs, and their conversion into results, and • support the work of the different Technical Working Groups and subgroups.
Qualification of the PTC members:	<ul style="list-style-type: none"> • Preferably have a postgraduate level in the field in question. • Have a good knowledge of climate change issues. • Have a good knowledge of the process of the implementation of the UNFCCC in ROM. • Be available.

Staff from the Department of Climate Change will support the PTC.

The PTC will ensure that the NC4 is compiled in accordance with the UNFCCC guidelines based on information and or reports provided by the various TWGs. PTC will liaise and consult with the various TWGs on issues relating to their respective competencies and promote the integration of climate change concerns and issues into various TWG reports. PTC will also identify and highlight evolving needs and priorities relating to the preparation of National Communication and the implementation of the Convention.

c. STAFF RECRUITMENT

NATIONAL PROJECT COORDINATOR (FULL-TIME)

A National Project Coordinator (NPC) will be recruited by the Focal Agency to oversee project implementation, under the United Nations Environment supervision. The NPC will be responsible for the overall management of all aspects of the project, and will provide technical assistance to the national technical expert groups. The NPC will report to the Director of Climate Change, MESWMCC. Amongst other duties (see below), the NPC will be called to prepare the *National Circumstances and Institutional Arrangement* Chapter of the NC4 Report; s/he will be assisted by the STM Intern (in lieu of the usual Project Assistant). The candidate should be highly motivated, enthusiastic, and capable of working independently. He/she should have a strong scientific/technical and policy background. The NPC should have experience in preparation of National Communication on Climate Change and/or in other climate change enabling activities. The ability to work with a wide variety of people from governments, agencies, non-governmental organizations, and research institutions is essential.

Funding Earmarked (US\$): 64350
<p>Duties of the National Project Coordinator:</p> <p>The National Project Coordinator, in consultation with the Project Steering Committee, will be responsible for the management, coordination and supervision of the implementation of the project. The coordinator’s duties will include, amongst others, to:</p> <ul style="list-style-type: none"> • Coordinate all project activities with heads of TWGs, and a range of institutions and agencies, including UNEP, IPCC, UNFCCC secretariat, GEF, and national institutions to ensure smooth and appropriate execution of project activities; • Prepare the following Chapters of the NC4 Report: <ul style="list-style-type: none"> ○ <i>National Circumstances and Institutional Arrangement</i> ○ <i>Technology Transfer and Development</i> ○ <i>Gender and Climate Change</i> • Prepare a detailed project work plan and TOR for the project consultants; • Liaise with the relevant ministries, national and international research institutes, NGOs, and other relevant institutions in order to involve their staff in the project activities, and to gather and disseminate information relevant to the project; • Identify, interview and recruit consultants to work for the project; • Promote and establish links with related national and regional projects, and other international programmes; • Close liaison with the TWGs and monitoring to ensure project progresses as per established work plan, and recommend corrective measures where appropriate; • Prepare the periodic progress reports on project implementation and ensure that all national project outputs are sent to UNEnvironment; • Manage the project expenditures according to the project budget; • Identify training needs of the contracted consultants and other project stakeholders, and identify appropriate courses and trainings for national capacity building; • Organize national workshops and trainings according to the project work plan. Attend, whenever possible, the relevant national, regional and international workshops, trainings and conferences; • Review all materials generated during the project;

- Ensure the publication and dissemination of the reports identified as project outputs.
- Coordinate negotiations on co-operation with Government and financing institutions in order to identify and mobilize sources for the follow-up activities.

Qualifications:

- A graduate degree in environmental/natural sciences or another related field;
- Relevant experience (at least 7 years) in the field of climate change;
- Familiarity with NC, and with international negotiations and processes under the UNFCCC;
- Substantial experience in government and in interdepartmental procedures will be of advantage;
- Familiarity with computers, spreadsheet manipulation and word processing;
- Good command of national and UN official language.

Service-to-Mauritius (STM) INTERN (FULL TIME)

The STM Intern will provide technical *cum* administrative assistance to the NPC to facilitate the proper execution and smooth implementation of the project. The STM Intern will be recruited by the Focal Agency. His/Her involvement in previous activities in the context of climate change is a major prerequisite.

Funding Earmarked (US\$): N/A

Duties:

The STM Intern, on a full-time basis, will perform the following duties:

- Assist the National Project Coordinator in:
 - managing the project activities;
 - setting up and maintaining the project filing system;
 - monitoring technical activities related to team leaders, groups of technical experts, institutions and organizations and national institutions;
 - the organization of events initiated by the project (national workshops and trainings, working group meetings, stakeholder consultations, etc.) according to the project work plan. Provide substantial support to these events;
 - the process of revising the reports produced under the project;
 - assist the NPC to prepare the following Chapters of the NC4 Report:
 - *National Circumstances and Institutional Arrangement*
 - *Technology Transfer and Development*
 - *Gender and Climate Change*
 - making available to national experts the methodologies used in the preparation of any report in the implementation of the project;
 - allocation and re-allocation of the project funds and in controlling the project expenditures; ensuring proper accountability of project funds;
 - ensuring expenditure statements in line with the UNEP budget code;
 - preparing the periodic reports including quarterly progress reports of activities and financial on the implementation of the project for the UNEP;
 - preparing the overall detailed project work plan and terms of reference for the project consultants;
 - drafting contracts for project staff and consultants.
- To welcome, assist and guide project partners;
- Participate, if necessary, in relevant national, regional and international workshops, trainings and conferences relevant to climate change;
- Identify the capacity building needs of project staff, national contract consultants and other project stakeholders and identify appropriate courses, training, software and models for national capacity building;
- Facilitate the process of recruitment of the project personnel (draft terms of reference, vacancy announcement, arrangement of interviews, maintenance of roster of consultants, preparation of recruitment package, etc.);
- Ensures and facilitates the integration of climate change issues into the national development plan;

- Arrange purchasing of equipment/software for the project purposes on a competitive basis. Maintain inventory of non-expendable equipment;
- The STM Intern would normally take the role of the Secretary;
- Perform any other project-related tasks that the NPC may delegate or entrust;
- Acting as the NPC in case of absence.

Qualifications:

- A graduate degree in economics or environmental science or management or another related field
- Have experience:
 - of at least three (03) years in the field of climate change.
 - of working with international organizations (UNEP, UNDP, etc.)
- Have a good knowledge and possibly experience in the development of National Communication and Biennial Update Reports.
- Have a good knowledge
 - of issues relating to climate change, environmental management and development in ROM.
 - of international negotiations and processes within the framework of the UNFCCC.
- Have a good command of:
 - the national and UN official language
 - the computer tool, especially spreadsheet manipulation and word processing;
- Have good writing and communication skills.
- Have good teamwork skills and, above all, work under pressure.

PROJECT ACCOUNTANT (PART-TIME)

An Accountant will be recruited to work on a part-time basis, who will work under the direct supervision of the NPC.

Funding Earmarked (US\$): 3600

Duties include:

- Perform the work of book keeping;
- Track payment/invoices/receipts and reconcile the accounts for the project ensuring that the funds are properly spent;
- Ensure that there is proper accountability of the funds;
- Prepare the expenditure statements in line with the UNEP budget code;
- Advise on the appropriate utilisation of funds and sign on the accuracy of the expenditures along with the National Focal Point on Climate Change or his designated representative.

Qualifications:

- A university degree in accounting/economics/finance and/or previous experience in serving under a similar capacity;
- A minimum of 3 years of relevant experience;
- Work experience with international organizations;
- Knowledge of computers, spreadsheet manipulation and word processing;
- Good command of English; and
- Be of Mauritius citizenship.

d. TECHNICAL WORKING GROUPS (TWGs)

Team Leaders/Chairs

Team leaders will chair TWGs made up of experts from relevant sectors including government agencies, academic institutions, NGOs and the private sector, including consultants for thematic studies as appropriate. The TWGs will be answerable to the National Project Coordinator (NPC). The TWGs will develop the work plan of the groups' relevant activity areas and sectors. They will provide technical assistance for project activities and guidance training on scientific or methodological aspects of project work. The NPC will manage all technical assistance and recruitment of consultants for day-to-day project work. TWGs will be engaged according to project work plan and Terms of Reference.

General Duties of Chairs of TWGs (and sub-groups)

- Work under the guidance of the Director of Climate Change, MESWMCC, and the UNEP Senior Task Manager;
- Work in consultation with the Chairs of the various TWG, if required, and in close collaboration with the Project Management Unit;
- Lead and work in close collaboration with the consultant(s) and stakeholders to ensure that NC4 deliverables are produced in a timely manner according to established work plan, for the preparation of the NC4;
- Visit Mauritius and/or the Outer Islands, if required, to cover assessments;
- Ensure that all information pertaining to the NC4 are compiled and submitted to the consultant(s) and channel the updated chapter, the corresponding executive summary, and technical Appendices (if any) for review and comment in a timely manner;
- Ensure adherence to Quality Assurance;
- Review, in collaboration with the consultant(s) and stakeholders (where applicable), the following:
 - Constraints and Gaps, and Related Financial, Technical and Capacity Needs and support received;
 - Information on level of support received to enable preparation and submission of NC, in the respective Sectors;
 - Adequacy of efforts in mainstreaming cross-cutting issues such as Gender mainstreaming, Disaster risk reduction and management, Technology Transfer & Development and Sustainable Economic Planning and Development;
- Where required, as leader of an editing team, prepare the reports for the relevant outputs chapters of the NC or assist the Consultants in this endeavour;
- Provide recommendations for a sustainable institutional arrangement for ROM, to meet the reporting requirements to the UNFCCC on a continuous basis.

Technical Working Groups and Subgroups

The composition of the TWGs and Subgroups (where applicable) are given in Table II-6.

All TWGs members will be remunerated for their inputs, depending of the type of contribution(s); the latter can be inputs through meetings, data provision/entry, and writing of NC4 chapters.

Some 190 members will be involved in NC4.

A total fund of USD 63000 has been estimated to cover TWG inputs and activities.

A sum of USD20,000 has been earmarked for data provision/entry into IPCC software.

An editing team comprising of the Chair and 1-2 members will provide the write-up for the five chapters' compilation and editing (as per Table III-1); each team remunerated at USD2,000.

TWG on 'National Circumstances and Institutional Arrangement/ Integration of Climate Change consideration into social, economic and environmental policies and actions/ Gender and Climate Change'

For practical purposes (since the membership composition is the same), this TWG essentially consists of three components:

- National Circumstances and Institutional Arrangement,
- Integration of Climate Change consideration into social, economic and environmental policies and actions, and
- Gender and Climate Change.

There are no sub-groups in this TWG.

Table II.6 details the composition of this TWG.

The contributions of this TWG to the NC4 Report are summarized in Table III.1.

National Circumstances and Institutional Arrangement (NCIA)

The presentation of the *National Circumstances and Institutional Arrangement* in which the country is implementing the Convention constitutes the first of the chapters which, according to decision 17 / CP.8, should compose the national communications.

The goals, expected results and the main tasks are presented component-wise below.

NCIA Goals:	Expected results:
The main objective is to contribute to the elaboration of the NC4 by presenting the national circumstances and institutional arrangements of ROM. Beyond the presentation of the national situation and institutional arrangements, this chapter specifically aims to highlight the link between climate change and the development priorities of ROM.	<ul style="list-style-type: none"> • <i>Availability of trained and operational national experts.</i> • <i>Availability of a database and updated information on national circumstances for the base year and the 1990-2021 series.</i> • <i>Proposal for an institutional arrangement for the implementation of NC.</i> • <i>A comprehensive report on physical aspects.</i> • <i>A comprehensive report on socio-economic aspects.</i> • <i>A summary report on the national context to be inserted in the NC4 document.</i>

Main Tasks include:

- Assist the NPC in preparation of a work plan as part of the relevant activity;
- Ensure availability and timely collection of data/information from various sectors and sub-sectors;
- Identify priorities and implications of climate change on priority sectors relevant to the country;
- Review proposals made in the latest NC on the establishment of a formal Institutional Arrangement for the periodic development of NC and GHG inventory;
- Review and update the zero draft report on National Circumstances and Institutional Arrangements;
- Advise on mainstreaming cross-cutting issues;
- Advise on sources of information on constraints and gaps, and related financial, technical and capacity-building needs;
- Compile information on financial resources, technology transfer, capacity building and technical assistance received from various sources;
- Assessing appropriately the Institutional Arrangement in proposals to make the development process of NC/BUR sustainable and continuous;
- Participating in meetings and workshops related to the theme;
- Strengthening the capacities of the members of the technical expert group on methodologies, for collecting and analysing the quality of data, the links between development and climate change and other themes as needed;
- Contribute to the analysis, synthesis, and the drafting of the report for the NC4;
- Assist the NPC to prepare and ensure timely preparation of the Chapter on National Circumstances and Institutional Arrangements of the NC4 report;
- Presenting a provisional report to a pool of experts to validation of studies and the final report in a national workshop;
- Finalise the report for NC4 report after contributing to, compilation and circulation of the drafting of the appropriate chapter of the NC4 report;

Integration of Climate Change consideration into social, economic and environmental policies and actions' (CCCPA)

CCCPA Goals:	Expected results:
<p>The main objective is to contribute to the development of the NC4 by describing the measures, policies and programmes to be taken to integrate climate change into social, economic and environmental policies and actions towards building sustainable resilient societies. The specific objectives are:</p> <ul style="list-style-type: none"> • Indicate how climate change issues (adaptation, mitigation and national greenhouse gas inventories) are taken into account / should be taken into account in relevant planning frameworks at national and sectoral levels. • Describe the national climate change policies, strategies and programmes that have been adopted, including the institutional structures for their implementation. • Assess the extent to which climate change is taken into account in national and sectoral policies and plans. • Evaluate synergies between climate risks and adaptation and integration. • Identify measures, policies and programmes identified in the previous national communication that can ensure sustainable development and design a roadmap on how to incorporate them into the country's development plans. 	<ul style="list-style-type: none"> • Climate change issues (adaptation, mitigation and national greenhouse gas inventories) are taken into account in relevant planning frameworks at national and sectoral levels. • National climate change policies, strategies and programmes that have been adopted, including institutional structures for their implementation are described. • Measures which show that climate change is taken into account in national and sectoral policies and plans are assessed. • Synergies between climate risks and adaptation are assessed with enhanced information, warning and reporting systems proposed. • The measures, policies and programmes identified in the previous national communication are identified and their importance for ensuring sustainable development is known. • A roadmap is designed on how to introduce measures, policies and programmes, at all levels, into the country's development plans with due consideration to disaster risk reduction. • Greater levels of coordination and cooperation at national, regional and international levels.
Main Tasks include:	

- Providing information on national processes for mainstreaming climate change into relevant social, economic and environmental policies and actions and major achievements.
- Indicating how climate change issues (adaptation, mitigation and national greenhouse gas inventories) should be taken into account in relevant planning frameworks at national and sectoral levels.
- Describing the national climate change policies, strategies and programmes that have been adopted, including the institutional structures for their implementation.
- Undertake a comprehensive review of evidence-based case studies, risks and available tools in relation to disasters; Recommend tools for advancing disaster risk reduction (e.g. Geospatial analysis);
- Describing climate change considerations in social, economic and environmental policies.
- Describing an action plan for integrating climate change into social, educational, economic and environmental policies.
- Assessing the extent to which climate change is taken into account in national and sectoral policies and plans.
- Evaluating the synergies between climate risks and adaptation and integration.
- Identifying measures and policies identified in previous national communications likely to ensure sustainable development and designing a roadmap on how to incorporate them into the country's development plans.
- Participating in meetings and workshops related to the theme.
- Lead the analysis, synthesis, and the drafting of the report for the NC4.
- Participating in the compilation of the national NC4 report.
- Presenting the provisional report to a pool of experts to validation of studies and the final report in a national workshop.
- Finalise the report for NC4 report after contributing to, compilation and circulation of the drafting of the appropriate chapter of the NC4 report.

Gender and Climate Change (GCC)

GCCGoals:	Expected results:
To provide information on gender and climate change.	<p>The main results expected from this study are in particular:</p> <ul style="list-style-type: none"> • The roles and responsibilities of women and men in the field of CC are known; • The opportunities for women to share their knowledge with climate change specialists are well known; • Sector programmes on women's resilience and their long-term adaptation to the effects of climate change are described; • Gender representation in project management committees and institutional frameworks and capacity building actions are described; • The weaknesses in the integration of gender in climate change are described.
Main Tasks include:	
<ul style="list-style-type: none"> • Study the roles and responsibilities of women and men in setting up projects related to climate change; • Assess the opportunities for women to share their knowledge with climate change specialists; • Develop sectoral programmes on women's resilience and long-term adaptation to the effects of climate change; • Assess the representation of gender in project management committees and institutional arrangements related to climate change; • Evaluate the weaknesses of gender mainstreaming in climate change and propose capacity building actions to address them; • Propose partnerships with institutions dealing with gender issues in the development of project documents; • Participate in meetings and workshops related to the theme; • Lead the analysis, synthesis, and the drafting of the report for the NC4; • Participating in the compilation of the national NC4 report. • Present the provisional report to a pool of experts for validation and the final report in a national workshop. • Finalise the report for NC4 report after contributing to, compilation and circulation of the drafting of the appropriate chapter of the NC4 report; 	

TWG on 'GHG Inventory/Mitigation Measures'

The GHG inventories previously carried out within the framework of the NC and the BUR needs updating and an improvement in quality. This update is necessary in order to take into account all of the recent data and information available for the preparation of the NC4. Updating the study on the mitigation of GHG emissions in the productive and socio-economic sectors of ROM also constitutes an important aspect of the NC4.

For practical purposes (since the membership composition is the same), this TWG essentially consists of two main components: GHG Inventory and Mitigation Measures. However, the subgrouping is presented sector-wise to be in conformance with the previous NC submissions.

Table II.6 details the composition of this TWG and its five (5) sub-groups:

- Sub-TWG: GHGI/MM (Energy: non-Transport) – combines former Energy Industries & Energy Other Sector (Residential, Commercial/Institutional/Manufacturing Industries & Construction and Agriculture/Forestry/ Fishing)
- Sub-TWG: GHGI/MM (Energy: Transport) - (Road Transportation, Civil Aviation & Water borne Navigation)
- Sub-TWG: GHGI/MM (Industrial Processes & Product Use)
- Sub-TWG: GHGI/MM (Waste) - Solid & Liquid Wastes
- Sub-TWG: GHGI/MM (Agriculture, Forestry and Other Land Use)

The contributions of this TWG to the NC4 Report are highlighted in Table III.1.

Special budgetary provision is made for data entry by stakeholders (data providers).

The chairs of the subgroups form part of the membership of the '*Constraints and Gaps, and Related Financial, Technical and Capacity Needs / Technology Transfer & Development (TT&D) / Capacity Building*' TWG (see below).

GHG Inventory/Mitigation Measures	GHGI/MM Goals:	Expected results include:
	<p>The main objective of the consultation is to contribute to the development of the NC4 by training the national experts on new methodologies for:</p> <ul style="list-style-type: none"> • GHG inventories in different sectors, the collection, analysis and archiving of all the data and information necessary for carrying out GHG inventories. • analyzing mitigation studies to define and quantify the reduction in GHG emissions in various sectors. <p>For mitigation, the specific objectives include:</p> <ul style="list-style-type: none"> • to develop a global approach to the analysis of mitigation studies with regard to sources and sinks of greenhouse gases. • to choose trend forecast scenarios for the socio-economic and productive sectors considered. • to evaluate the impacts and propose the related mitigation options. • to raise public awareness and awareness of GHG emissions from the above-mentioned sectors and the appropriate mitigation options. • to develop the NDC implementation action plan. • to develop technical sheets for executable mitigation projects. • to propose a portfolio of mitigation projects eligible for NDCs. 	<ul style="list-style-type: none"> • Availability of trained and operational national experts for GHG inventories. • National experts are trained and operational to carry out mitigation studies; • Availability of a database and updated information on GHG emissions (sources, sinks and quantity) in the various sectors. • The establishment of an updated database and information on options for mitigating GHG emissions from relevant sectors; • A full report for different sectors, at the base year and over the duration of the study. • A mitigation study report for the relevant sectors. • A GHGI and MM report to be inserted in the NC4 document.

GHG Inventory/Mitigation Measures	Duties (GHGI/MM)
	<ul style="list-style-type: none"> • Advise on mainstreaming cross-cutting issues including technology needs, which must be nationally determined and on technology support received; • Advise on selection and application of appropriate inventory methodologies. • Advise on selection of models for evaluating mitigation options and measures for GHG emission reduction; • Advise on sources of information on constraints and gaps, and related financial, technical and capacity-building needs; • Analyze the cost-effectiveness of the technologies (as per nationally determined technology needs) and the opportunities for their application; • Assess the existing endogenous technologies for further promotion within the context of national circumstances; • Assist in arranging the national review and awareness raising workshops on TT&D and participate in the sub-regional, regional and international training on TT&D; • Assist the Consultant to finalise draft report for NC4 report after compilation and reviewing; prepare and ensure timely preparation of relevant outputs of NC4; • Assist the Consultant to present a provisional report to a pool of experts for validation and the final report in a national workshop. • Assist the NPC in arranging the national review and training workshops on CC Mitigation measures; • Assist the NPC in preparation of a work plan as part of the relevant activity; • Assist the NPC in the arrangement of the national review and training workshops on improving quality of the national GHG inventory; • Compile information on financial resources, technology transfer, capacity building and technical assistance received from various sources; • Contribute substantially to development of the NIR and identify the follow-up activities; • Contribute to the analysis, synthesis, and the drafting of the GHGI report for the NC4; • Ensure availability, timely collection of data and data entry from various sectors and sub-sectors; • Ensure data quality control and quality assurance, and assist in key source analysis; • Identify relevant Constraints and Gaps, and Related Financial, Technical and Capacity Needs and support received; • Overview and select measures to mitigate climate change and identify the follow-up activities; • Participate in meetings and workshops related to the theme; • Recommend ways of improvement of the national emission actors; • Review the analysis of GHGI and MM. • Suggest on technical capacity building and participate in the sub-regional, regional and international training on GHG inventory;

TWG on ‘Vulnerability Assessment & Adaptation’

One of the most important stages of the preparation process concerns the assessment of the vulnerability of the productive and socio-economic sectors of ROM to climate change and variability, as well as the adoption and the implementation of mitigation and / or adaptation strategies and plans.

The main objective of the consultation is to contribute to the development of the NC4 by training on methodologies for studies of vulnerability and adaptation of different sectors to climate change.

Table II.6 details the composition of this TWG and its eight (8) sub-groups (split with emphasis on sectors):

- Sub-TWG: VA&A Agriculture
- Sub-TWG: VA&A Fisheries and Marine Ecosystem and Biodiversity
- Sub-TWG: VA&A Terrestrial Ecosystem and Biodiversity
- Sub-TWG: VA&A Infrastructure
- Sub-TWG: VA&A Human Health
- Sub-TWG: VA&A Coastal Zone
- Sub-TWG: VA&A Water
- Sub-TWG: VA&A Tourism

The chairs of the sub-groups form part of the membership of the ‘Constraints and Gaps, and Related Financial, Technical and Capacity Needs / Technology Transfer & Development (TT&D) / Capacity Building’ TWG (see below).

VA&A Goals:	Expected results:
<p>The main objective of the consultation is to contribute to the development of the NC4 by training national experts on methodologies for studies of vulnerability and adaptation of different sectors to climate change.</p> <p>The specific objectives are:</p> <ul style="list-style-type: none"> • Develop impact assessment methods and adaptation strategies. • Choose trend forecast scenarios for the socio-economic and productive sectors considered. • Choose a strategic area to conduct in-depth VA&A studies. • Evaluate the impacts and propose the related adaptation strategies. • Raise awareness and raise public awareness of the vulnerability of the above-mentioned sectors and the appropriate solutions. • To evaluate the Disaster Risk Reduction and Management implications towards the building of sustainable resilient societies. 	<ul style="list-style-type: none"> • National experts are trained and operational to carry out studies of vulnerability assessment and adaptation to climate change. • The establishment of a database and information on the vulnerability and adaptation of the productive and socio-economic sectors to climate change. • A document of in-depth studies of VA&A in the target area. • An NC4 report on the integrate climate change considerations into relevant social, economic and environmental policies and actions - for inclusion in ‘Other Info’; • A summary report of all VA&A studies.

Duties (VA&A)
<ul style="list-style-type: none"> • Advise on and compile mainstreaming cross-cutting issues; • Advise on sources of information on constraints and gaps, and related financial, technical and

- capacity-building needs;
- Analyze the cost-effectiveness of the technologies (as per nationally determined technology needs) and the opportunities for their application;
- Assess future climate risks in conjunction with associated experts, develop potential scenarios, describe future climate changes and describe vulnerability, socio-economic conditions and trends in natural resource and environmental management;
- Assess the existing endogenous technologies for further promotion within the context of national circumstances;
- Assess vulnerability, climate change impact and adaptation to climate change and variability;
- Assist in arranging the national review and awareness raising workshops on TT&D and participate in the sub-regional, regional and international training on TT&D;
- Assist in the use of the tools, methods, methodologies and software of the UNFCCC and the IPCC including modelling;
- Assist the Consultant to finalise draft report for NC4 report after compilation and reviewing; prepare and ensure timely preparation of relevant outputs of NC4;
- Assist the Consultant to present a provisional report to a pool of experts for validation and the final report in a national workshop.
- Assist the NPC in arranging the national review and training workshops on CC Mitigation measures;
- Assist the NPC in preparation of a work plan as part of the relevant activity;
- Assist the NPC in the arrangement of the national review and training workshops on improving quality of the national GHG inventory;
- Compile information on financial resources, technology transfer, capacity building and technical assistance received from various sources; the technology needs must be nationally determined and on technology support received;
- Contribute substantially to the establishment of a database for environmentally sound technologies (ESTs);
- Contribute to development of the national strategy on adaptation to climate change and identify the follow-up activities;
- Contribute to the analysis, synthesis, and the drafting of the report for the NC4;
- Define the study time horizons for each sector;
- Defining strategies and options as well as measures and actions to adapt to climate change for the sectors studied;
- Ensure availability and timely collection of data from various sectors and sub-sectors;
- Ensure data quality control and quality assurance;
- Finalise the report for NC4 report after contributing to, compilation and circulation of the drafting of the appropriate subchapter of the NC4 report;
- Help organize the national review and training workshops on vulnerability and adaptation measures;
- Identify, collect and analyze all the basic and additional data and information needs necessary for the study and assessing the means;
- Participate in meetings and workshops related to the theme;
- Perform scenario analyses;
- Presenting a provisional report to a pool of experts to validation of studies and the final report in a national workshop.
- Strengthening the capacities on methodologies for studying, collecting and analyzing data quality, the use of methodologies and tools and other themes according to the needs of the sector vulnerability and adaptation to climate change and variability;
- To study the Disaster Risk Reduction and Management implications towards the building of sustainable resilient societies.
- Validate the appropriate approaches, tools and methods to be used for vulnerability and adaptation studies for each sector;

TWG on 'Climate Change Research and Systematic Observation / Education, Training and Public Awareness / Knowledge, Information Sharing & Networking'

For practical purposes (since the membership composition is the same), this TWG essentially consists of three components:

- Climate Change Research and Systematic Observation,
- Education, Training and Public Awareness, and
- Knowledge, Information Sharing & Networking.

There are no sub-groups in this TWG.

Table II.6 details the composition of this TWG.

The contributions of this TWG to the NC4 Report are highlighted in Table III.1.

The goals, expected results and the main tasks of the above three components that will be undertaken by this TWG are given below.

Climate Change Research and Systematic Observation

	Goals:	Expected results:
Climate Change Research and Systematic Observation	This study, which is part of the implementation of Article 5 of the UNFCCC and Article 10.d of the Kyoto Protocol, on "Research and Systematic Observation", aims to build the capacity of systematic climate change observation systems: (i) meteorological / climatological observations; (ii) atmospheric observations; (iii) oceanographic observations; (iv) terrestrial observations (hydrological, greenhouse gases, in particular CO ₂ , plant cover, forestry and other land uses, forest fires, vegetation fires, etc.); (v) space (satellite) observations, in order to contribute more effectively and sustainably to research at global scale.	<ul style="list-style-type: none"> • An inventory of meteorological, climatological, atmospheric and satellite observation systems (incl CubeSat (if any), data collection networks, types of data collected, data processing and storage, data exchange and / or use, participation in international observation programmes, quality control and archiving of data, assets, constraints, etc.), is established; • Capacity building needs for meteorological, climatological, atmospheric and satellite observation systems are identified and assessed; • Technical sheets for projects to strengthen the capacity of meteorological, climatological, atmospheric and satellite observation systems, describing in particular: the rational objectives, expected results, activities and estimated budget for these projects are prepared.
	CCRSO Main Tasks include:	
	<ul style="list-style-type: none"> • Assist in preparation of work plan in part of the relevant activity; • Assess the existing system for early warning on extreme weather events and methods of seasonal forecasting; • Develop and use forecasting tools including downscaling models for ROM and for use for NCs; • Analyze the existing bathers for development of observation systems and research, and identify the follow-up activities; • Contribute substantially to development of a National Information Report on Research and Systematic Observation; • Assist in arranging the national review and awareness raising workshops on research and systematic observation, and participate in the sub-regional, regional and international trainings on the matter; • Defining and adapting to the context of ROM, the notion of "Systematic Observation Systems for Climate Change", on the basis of the documentation available on the subject (UNFCCC, Kyoto Protocol, Document FCCC / CP / 1999 / 7 "Guidelines for reporting on global climate change observing systems", etc.); • Taking stock of meteorological, climatological, atmospheric and satellite observation systems (incl 	

	<p>CubeSat technology (if any)), data collection networks, types of data collected, data processing and storage, data exchange and / or use, participation in international observation, quality control and archiving of data, knowledge, constraints, etc.);</p> <ul style="list-style-type: none"> • Identifying and assessing the capacity building needs of meteorological, climatological, atmospheric and satellite observation systems; • Outlining information on climate change research programmes in the areas of mitigation and adaptation, and on the development of emission factors and activity data at the national and/or regional level, including opportunities for strengthening these programmes and presenting details of bilateral and multilateral support received for the implementation of projects and programmes in these areas; • Developing technical data sheets for projects to strengthen the capacity of meteorological, climatological, atmospheric and satellite observation systems, describing in particular: the rational objectives, expected results, activities and estimated budget of these projects. • Participate in meetings and workshops related to the theme; • Contribute to the analysis, synthesis, and the drafting of the sub-chapter on Research and Systematic Observation for the NC4; • In collaboration with the consultant, prepare and ensure timely preparation of relevant outputs of NC4; • Present a provisional report to a pool of experts to validation of studies and the final report in a national workshop.
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Education, Training and Public Awareness (ETPA)

	Goals:	Expected results:
Education, Training and Public Awareness	<p>The objective of this study is to assess the general level of awareness, awareness and understanding of climate change issues at all levels and of policy in education, training and public awareness of change climate.</p>	<ul style="list-style-type: none"> • Activities undertaken to implement Article 6 of the Convention including institutional and/or legal frameworks, and means to monitor and evaluate their effectiveness are described. • The level of awareness and understanding of the challenges of climate change at all levels is analyzed. • Existing activities and plans to mainstream climate change issues into national education programmes (formal and non-formal) are described. • Public awareness programmes and campaigns involving relevant stakeholders are designed. • Gaps, needs and priorities for climate change education, training and public awareness including the necessary international assistance are identified. • Description of the process in vulnerability and adaptation assessments including national adaptation programmes of action (NAPAs), if applicable, and links of a country's NAPA with national efforts in education, training and public awareness is made.
	Specific Duties	
	<ul style="list-style-type: none"> • Compile and analyze information on activities/tasks relating to the implementation of the New Delhi work program on Article 6 of the Convention; • Identify the needs and priorities for climate change education, training and public awareness as they relate to GHG inventory, vulnerability and adaptation assessment, mitigation, technology transfer, research and systematic observation and other emerging priorities; • Assess the general level of awareness, awareness and understanding of climate change related issues at all levels and of climate change education, training and public awareness policy; 	

	<ul style="list-style-type: none"> • Evaluate the national curriculum and the efforts made by the government with regard to education related to climate change in primary, secondary, and tertiary; • Evaluate activities and plans for mainstreaming climate change issues into existing national education programmes (formal and non-formal); • Assess the available information on implemented or planned public information initiatives, campaigns and programmes, climate change information centers/repositories, institutional and legal framework for public participation and access to information, international cooperation to promote education, training and public awareness on CC; • Evaluate national efforts in vulnerability and adaptation assessment, including National Adaptation Action Programmes (NAPAs) in education, training and public awareness; • Assess gaps, needs and priorities in education, training and public awareness (primary, secondary, tertiary and general public) on CC including the necessary international assistance and propose a five-year action plan; • Develop a national strategy on education, training and public awareness (primary, secondary, tertiary and general public) related to CC; • Build and periodically update the content of a user-friendly climate change website to add information on climate change, when needed, as well as to report, interact, coordinate and engage citizens on climate change; • Launch and implement the “Adopting a green and sustainable lifestyle campaign” through a dedicated website (including a number of media: television, radio, internet, street advertising, face-to-face events, partnerships and etc.) to engage citizens on climate change issues, take action and encourage genuine and sustainable behavior change to help reduce individual CO2 emissions and achieve the ROM's objectives under the COP Agreements; • Develop an initiative to mobilize young people and businesses on climate change, the “Championing Climate Change”, as part of the “Adopting a green and sustainable lifestyle campaign”, with the aim of developing start-ups around the reality of climate change and scientific consensus around the causes, and to encourage behavioral change using all means of message vehicle; • Develop online ‘Low carbon footprint champions’, as part of the “Adopting a green and sustainable lifestyle campaign” (to be placed on the “Adopting a green and sustainable lifestyle” website) with a prize to inspire people/businesses to measure their carbon footprints and mobilize society to embrace the low carbon lifestyle; • Propose a (periodic) monitoring and evaluation system, at least once a year, on the result and / or impact of the “Low carbon footprint champions” campaign; • Develop and publish two (2) booklets “a guide for climate change communication” and “a guide for inspiring actions on climate change”, which will provide guidance to people wishing to encourage individuals to combat climate change, inclusive through simple projects people can undertake to improve the performance of their homes' carbon footprint; • Conduct a workshop on ways to promote climate change education, training and public awareness with decision-makers of the ROM’s education system from Ministries, Institutions, NGOs and the Private Sector; • Participate in meetings and workshops related to the theme; • Contribute to the analysis, synthesis, and the drafting of the sub-chapter on Education, Training and Public Awareness for the NC4; • In collaboration with the consultant, prepare and ensure timely preparation of relevant outputs of NC4; • Present a provisional report to a pool of experts to validation of studies and the final report in a national workshop.
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Knowledge, Information Sharing & Networking (KISN)

	Goals:	Expected results:
	<p>The objective of this study is to provide the information necessary to promote information sharing and networking within the country, the region and internationally.</p>	<ul style="list-style-type: none"> • Sharing of information including existing channels, to ensure efficient flow of information at the local level is facilitated. • The level of participation in the country's international information networks including centers of excellence is described. • The constraints encountered to facilitate the sharing, dissemination and networking of information are described.
Knowledge, Information Sharing & Networking	<p>Specific Duties</p> <ul style="list-style-type: none"> • Identify technology needs for information and networking; • For inclusion in the compilation of the NC, prepare the sub-chapter on Knowledge, Information Sharing & Networking; • Take stock of the main systems for sharing information on climate change at the national, regional and international level; • Describe national efforts to facilitate information sharing, including existing channels, to ensure efficient flow of information; • Describe the efforts made to facilitate the exchange of information between ROM and the world; • Describe the level of participation of ROM in international information networks, including centers of excellence; • Describe the constraints encountered to facilitate information sharing, dissemination and networking arrangements; • Participate in meetings and workshops related to the theme; • Lead the analysis, synthesis, and the drafting of the report for the NC4; • Participate in the compilation of the national NC4 report (sub-chapter on Knowledge, Information Sharing & Networking); • Present the provisional report to a pool of experts for the scientific validation of studies and the final report in a national workshop. 	

TWG on ‘Constraints and Gaps, and Related Financial, Technical and Capacity Needs / Technology Transfer & Development / Capacity Building’

For practical purposes (since the membership composition is the same), this TWG essentially consists of three components:

- Constraints and Gaps, and Related Financial, Technical and Capacity Needs,
- Technology Transfer & Development, and
- Capacity Building.

There are no sub-groups in this TWG.

Table II.6 details the composition of this TWG.

The contributions of this TWG to the NC4 Report are highlighted in Table III.1.

The goals, expected results and the main tasks of the above three components that will be undertaken by this TWG are given below.

Constraints and Gaps, and Related Financial, Technical and Capacity Needs

Like the other countries Parties to the UNFCCC, ROM is engaged in the process of preparing its NC4 at the Conference of the Parties. The preparation process includes a number of sections, one of the most important of which concerns the enumeration of constraints and gaps, financial, technical and capacity needs related to climate change in ROM.

The goals, expected results and the main tasks will be undertaken by this TWG are given below.

CG&RFTCN Goals	Expected results:
<p>The main objective is to contribute to the development of NC4 to provide information on constraints and gaps, and related financial, technical and capacity needs for the implementation of climate change programmes in the ROM.</p> <p>The specific objectives are to:</p> <ul style="list-style-type: none"> • Provide constraints and gaps in the implementation of activities relating to climate change. • Suggest activities to be implemented to overcome the gaps and constraints. • Provide financial, technical and capacity needs for climate change activities. • Provide information on financial resources and technical support received from GEF, Appendix II Parties or bilateral and multilateral institutions for climate change activities. 	<ul style="list-style-type: none"> • Constraints and gaps in the implementation of climate change activities are provided. • The activities to be implemented to overcome the gaps and constraints are proposed. • Financial, technical and capacity needs for climate change activities are provided. • Information on financial resources and technical support received from GEF, Appendix II Parties or bilateral and multilateral institutions for climate change activities are provided. • A study report of constraints and gaps, financial, technical and capacity needs related to climate change.
<p>TWG Duties include:</p> <ul style="list-style-type: none"> • Assist the NPC in preparation of a work plan relevant to the activity; • Reviewing, collating and updating information (including inputs from other TWGs) and analyzing on constraints, gaps and related financial, technical and capacity needs. • Collating, analyzing and preparing a report on financial resources, technology transfer, capacity 	

building and technical assistance received from Global Environment Facility (GEF), Appendix II Parties and other developed country Parties, the Green Climate Fund (GCF), FA and bilateral and multilateral institutions for activities related to climate change.

- Analyzing on the adequacy of financing opportunities with the current needs in ROM.
- Providing a framework for the continuous assessment and communication of constraints, gaps and related financial, technical and capacity needs and the support needed and received.
- Advise on mainstreaming cross-cutting issues;
- Ensure availability and timely collection of data from various sectors and sub-sectors;
- Ensure data quality control and quality assurance;
- Participate in meetings and workshops related to the theme;
- Contribute to the analysis, synthesis, and the drafting of the report for the NC4;
- In collaboration with the consultant, prepare and ensure timely preparation of relevant outputs of NC4;
- Presenting a provisional report to a pool of experts to validation of studies and the final report in a national workshop.

Qualifications:

- Have a graduate degree and/or postgraduate studies;
- Have good knowledge of the scientific aspects, impacts and adaptation strategies of climate change;
- Have at least five (05) years of professional experience.

Technology Transfer and Development (TT&D)

Table II.6 details the composition of this TWG.

Two components: TT&D entails both mitigation and VA&A.

	TT&D Goals:	Expected results include:
Technology Transfer & Development	The objective of this study is to identify the capacity building needs and to define the means of strengthening these capacities in terms of technology transfer in the priority of socio-economic development sectors, in particular: energy, agriculture, forestry, waste, etc., in order to contribute to the reduction of GHG emissions and to clean development, on a global scale.	<ul style="list-style-type: none"> • The inventory (technologies used, stakeholders, achievements, constraints, etc.) in terms of technology transfer in priority socio-economic development sectors, in particular: energy, agriculture, forestry, waste, etc., has been established; • Capacity building needs in terms of technology transfer in priority to socio-economic development sectors are identified and assessed; • Technical sheets for sectoral capacity building projects in the field of technology transfer in priority to socio-economic development sectors, describing in particular: the rational, objectives, expected results, activities and estimated budget of these projects are elaborated.
	TT&D TWG Duties include:	
	<ul style="list-style-type: none"> • Assist the NPC in preparation of a work plan as part of the relevant activity; • Advise on selection of priority technological needs for both mitigation and VA&A; • Advise on sources of information on constraints and gaps, and related financial, technical and capacity-building needs; • Compile information on financial resources, technology transfer, capacity building and technical assistance received from various sources; • Advise on mainstreaming cross-cutting issues including technology needs, which must be nationally determined and on technology support received. • Participate in meetings and workshops related to the theme; • In collaboration with the consultants, prepare and ensure timely preparation of relevant outputs of NC4; • Analyze the cost-effectiveness of the technologies (as per nationally determined technology needs) and the opportunities for their application; • Assess the existing endogenous technologies for further promotion within the context of national circumstances; • Assist in arranging the national review and awareness raising workshops on TT&D and participate in the sub-regional, regional and international training on TT&D; • Contribute substantially to the establishment of a database for environmentally sound technologies (ESTs); • Finalise draft report for NC4 report after compilation and reviewing; • In collaboration with the Mitigation and VA&A Consultants, prepare and ensure timely preparation of relevant outputs of NC4; • Present a provisional report to a pool of experts to validation of studies and the final report in a national workshop. 	

Capacity Building (CB)

	<p>Goals:</p> <p>The objective of this study is to identify the needs for strengthening national capacities in areas related to the implementation of the UNFCCC, its protocol and the Paris Agreement at the institutional level and human capacity while identifying priorities.</p>	<p>Expected results:</p> <ul style="list-style-type: none"> • The institutional framework relating to capacity building linked to CC while noting the strengths and weaknesses is described. • The capacity building received by climate actors in connection with CCs are described. • The projects (title, sources of financing, amount) executed in ROM including capacity building are described. • The needs for strengthening national capacities in areas related to the implementation of the UNFCCC, its protocol and the Paris Agreement at the institutional level and human capacity while identifying priorities are described. • The national CC capacity building strategy is developed.
Capacity Building	<p>Specific Duties</p> <ul style="list-style-type: none"> • Compile and analyze information on activities/tasks relating to the implementation of the Capacity-building framework of the UNFCCC; • Compile and analyze the capacity building received by climate actors in connection with CCs including the projects (title, sources of funding, amount) executed in ROM. • Identify the national capacity needs and priorities for capacity-building as they relate to various facets of CC (such as GHG inventory, vulnerability and adaptation assessment, mitigation, technology transfer, research and systematic observation and other emerging priorities) and in relation to the implementation of the UNFCCC, its protocol and the Paris Agreement at the institutional level and human capacity while identifying priorities; • Liaise and consult with the various TWGs under the NC project and the National Capacity Self-Assessment; • Analyze the institutional framework relating to capacity building linked to CC while noting the strengths and weaknesses. Prepare a draft National plan for implementation of Article 6 of the Convention and the UNFCCC capacity building framework; • Participate in meetings and workshops related to the theme; • Participate in the compilation of the national NC4 report; • Lead the analysis, synthesis, and the drafting of the report for the NC4 (sub-chapter on Capacity Building); • Present the provisional report to a pool of experts for the scientific validation of studies and the final report in a national workshop. 	

e. CONSULTANTS

Under Article 12.1 of the UNFCCC, ROM is committed to provide information that can contribute to the combat climate change. To contribute in the preparation of the relevant chapters, executive summaries, and technical annexes (if any), consultants will be recruited.

MAIN CONSULTANTS

For the NC4 assignment, provision may be made for four (4) main Consultants to prepare the following Chapters:

<p><i>GHG Inventory (GHGI) - (One International and one local)</i> <i>Mitigation Measures (MA) - (One International)</i> <i>Vulnerability Assessment & Adaptation (VA&A)-(One International and local consultant(s))</i> <i>Constraints And Gaps, And Related Financial, Technical And Capacity Needs - (One International)</i></p>
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Consultants will:

- will assess their individual sectors as per the 2006 or latest IPCC guidelines in collaboration with stakeholders.
- work in close collaboration with chair(s) of TWG(s) and subgroup(s) (where applicable), the Project Management Unit and stakeholders to ensure that deliverables are produced in a timely manner according to established work plan, for the preparation of the NC4;
- will lead the analysis, synthesis, in their areas of expertise;
- will contribute to the drafting of the report for the NC4;
- where applicable, undertake visits (Mauritius and/or the Outer Islands), to cover assessments;
- present the report to the TWG/a pool of experts and the final report to a national workshop.

Besides the qualifications listed in the tables below, all consultants need to have the following:

- Good knowledge of the issue, the main issues of climate change and related issues, and the various instruments for implementing the Convention on Climate Change;
- Good capacity for analysis and synthesis;
- Good ability to summarize and use scientific and technical documentation;
- Good level of knowledge of English with a good ability to read, write and speak English;
- Good command of IT skills (spreadsheets, word processing, etc.);
- Good experience in organizing and coordinating teamwork.

GHG INVENTORY CONSULTANTS

Main Tasks of the Consultants in the area of GHG Inventory	
Funding Earmarked (US\$): 48 900 (98 person-days)	
Common Tasks (applicable to all GHGI subgroups)	
	<ul style="list-style-type: none"> • Defining Institutional Arrangements with other institutions for data collection and constitution of the GHG inventory team and strengthening the national inventory system put in place: <ul style="list-style-type: none"> ○ Develop, in collaboration with the PMU, appropriate guidelines in the sector. ○ Identify the various specialized institutions in the sector. ○ Identify any existing databases. • Strengthening the capacities of the Experts (including academia and research officers) on methodologies for collecting and analyzing data quality, the use of methodologies and tools and other themes (e.g. Uncertainty Analysis and Quality Assurance/Control with regard to data collection, data entry and GHG calculations) according to the needs of the sector. • Assisting in the collection and analysis of data according to best practices.

	<ul style="list-style-type: none"> • Computing and providing guidance on the computation of country specific Emission Factors in the sector, using the most appropriate inventory methodology (tier system); • Undertaking data computation, data entry (assisted by TWG members) and Quality Control for the GHG Inventory according to 2006 or latest IPCC guidelines in collaboration with local stakeholders; • Assessing the level of disaggregated activity data availability in the sector, ensuring reliable quality, and conduct a validation exercise of the collected data, and time series data to obtain an updated trend of GHG emission, according to the 2006 or latest IPCC guidelines; • Ensuring that there is a good use of guides, guidelines and methodologies. • Participating in meetings and workshops related to the theme. • Lead the analysis, synthesis, and the drafting of the report for the NC4. • Presenting the provisional report to a pool of experts and the final report to a national validation workshop. • Finalizing report/chapter incorporating comments from concerned stakeholders and UNEP Task Manager in line with National as well as UNFCCC requirements.
Specific Tasks: ENERGY SECTOR (Energy Industries, Energy Other Sector and Transport)	
ENERGY SECTOR	<p>Preparing the inventory report of anthropogenic GHG emissions by sources and removals by sinks not controlled by the Montreal Protocol in the energy sector:</p> <ul style="list-style-type: none"> ○ Collect production, import and consumption data for different forms of energy. ○ Describe the energy flows. ○ Disaggregate data on final energy consumption. ○ Describe the technologies for using energy sources. ○ Estimate the apparent consumption of energy by category of activity. ○ Inventory the emissions of different GHGs according to the IPCC / OECD methodology. ○ Establish a descriptive report of the results obtained. ○ Specify the uncertainties according to the Good Practices Recommended by the IPCC.
Specific Tasks: WASTE SECTOR	
WASTE SECTOR	<p>Preparing the inventory report of anthropogenic GHG emissions by sources and removals by sinks not controlled by the Montreal Protocol in the Waste sector:</p> <ul style="list-style-type: none"> ○ Identify the types of activities and emissions related to solid waste in the land environment, wastewater and human detritus; ○ Evaluate the flows (quality and quantity) of urban waste collected, evacuated, and eliminated and landfilled; ○ Characterize the waste and wastewater produced on a national scale; ○ Inventory waste landfills; ○ Evaluate the BOD5 and COD of wastewater and organic sludge; ○ Determine GHG emissions according to the methodology of the IPCC / OECD, 1996 in each sub-sector; ○ Specify the uncertainties according to the Good Practices Recommended by the IPCC;
Specific Tasks: INDUSTRIAL PROCESSES AND PRODUCT USE SECTOR	
IPPU SECTOR	<p>Preparing the inventory report of anthropogenic GHG emissions by sources and removals by sinks not controlled by the Montreal Protocol in the Industrial Processes and Product Use sector:</p> <ul style="list-style-type: none"> ○ Identify industrial activities unrelated to energy that are sources of GHG emissions. ○ Inventory the different types of industrial processes including the production of cement and lime, the agro-food and chemical industries. ○ Calculate the GHG emissions attributable to industrial processes. ○ Calculate the GHG emissions attributable to the use of solvents and other products containing volatile organic compounds. ○ Specify the uncertainties according to the Good Practices Recommended by the IPCC.
Specific Tasks: AGRICULTURE, FORESTRY AND OTHER LAND USE SECTORS	

AFOLU SECTOR	<ul style="list-style-type: none"> • Developing consistent land-use matrices and refine land representation for the LULUCF; • Preparing the inventory report of anthropogenic GHG emissions by sources and removals by sinks not controlled by the Montreal Protocol in the Agriculture, Forestry and other land use sector: <ul style="list-style-type: none"> ○ Collect data on cultivated and / or cleared areas, livestock, forest heritage or any other stock of woody biomass; ○ Describe production systems, cropping systems, animal husbandry and manure (excreta) management systems; ○ Describe the structures, functioning and dynamics of natural formations and agro-forest parks; ○ Estimate the greenhouse gas emissions linked to each sub-sector according to the IPCC / OECD methodology.
Qualifications:	
<ul style="list-style-type: none"> • Have a graduate degree and/or postgraduate studies. • Have training in GHG inventories of the sectors concerned by the preparation of national communications on climate change. • Have good knowledge of the scientific aspects, impacts and adaptation strategies of climate change; • Have a good knowledge of guidelines, methodologies, scenario development tools. • Have at least five (05) years of professional experience. 	

MITIGATION ANALYSIS CONSULTANT

Main Tasks of the Consultant in the area of Mitigation Analysis
Funding Earmarked (US\$): 62500 (125 person-days)
<ul style="list-style-type: none"> • Strengthening the capacities of the Experts (including academia and research officers) working on mitigation actions and their effects, mitigation assessment techniques, approaches, methods, tools, barrier analysis and sectoral and in terms of guidelines and / or methodologies used in mitigation studies. • Reviewing, updating and proposing mitigation policies and measures (implemented and planned) by sources and removals by sink of all GHGs and their effects particularly for the sector, including methodologies and corresponding assumptions. • Collecting and analyzing data from GHG inventories and the basic and additional information needed to project the reference and mitigation scenarios for each sector; • Applying the appropriate analysis methodology for mitigation studies for each sector; • Assisting Experts in: <ul style="list-style-type: none"> ○ analyzing the quality of the data collected; ○ the use of the tools, methods, methodologies and software of the UNFCCC and the IPCC; ○ the development of climate, socio-economic and environmental climate change scenarios; ○ in estimating uncertainties; • Evaluating the assumptions relating to GHG production trends, the forecasts for the use of new technologies and the political and institutional measures essential to the effective realization of the proposed mitigation options; • Creating a database with all the mitigation actions (policies, measures), containing: (a) a description of the ongoing and planned mitigation actions, including information on the nature of the action, the coverage (sectors and gas) (b) methodologies and assumptions, c) objectives of actions and measures taken or considered. • Supervising the Experts in the mitigation of GHG emissions and development of the action plan for the implementation of CDM projects. • Ensuring that there is a good use of guides, guidelines and methodologies. • Developing reference scenarios ("without measures"), mitigation scenarios ("with measures" and "with additional measures") at the sectoral level and propose measures. • Report on the cost-effectiveness of state-of-the-art mitigation technologies and the opportunities for their application; • Contribute substantially to the establishment of a database for environmentally sound technologies (ESTs) related to mitigation;

Participating in meetings and workshops related to the theme.

- Participating in the production of the general report of climate change mitigation studies.
- Lead the analysis, synthesis, and the drafting of the report for the NC4.
- Presenting the interim report to a pool of experts to scientific validation of studies and the final report in a national workshop.

Qualifications:

- Have a graduate degree and/or postgraduate studies.
- Have training in mitigation studies of the sectors concerned by the preparation of national communications on climate change.
- Have good knowledge of the scientific aspects, impacts and adaptation strategies of climate change;
- Have a good knowledge of guidelines, methodologies, scenario development tools.
- Have at least five (05) years of professional experience.

VULNERABILITY ASSESSMENT / ADAPTATIONCONSULTANTS

Main Tasks of the Consultants in the area of VA&A
Funding Earmarked (US\$): 76300 (153 person-days)
<ul style="list-style-type: none"> • Strengthening the capacities of the VA&A TWG on methodologies for studying, collecting and analyzing data quality, the use of methodologies and tools and other themes according to the needs of the sector vulnerability and adaptation to climate change and variability; • Assisting experts in the use of the tools, methods, methodologies and software of the UNFCCC and the IPCC; • Validating the appropriate approaches, tools and methods to be used for vulnerability and adaptation studies for each sector; • Assessing vulnerability and adaptation to climate change and variability; • Assessing future climate risks in conjunction with associated experts, develop potential scenarios, describe future climate changes and describe vulnerability, socio-economic conditions and trends in natural resource and environmental management; • Identifying, in conjunction with the associated experts, all the basic and additional data and information needs necessary for the study and assessing the means; • Collecting and analyzing in relation to the associated experts, data and basic information already available on the sectors studied, while evaluating their reliability; • Defining the study time horizons for each sector; • Establishing, in conjunction with the associated experts, the current situation, the future reference situation without climate change and the future situation with climate change for each sector; • Defining strategies and options as well as measures and actions to adapt to climate change for the sectors studied; • Assisting in the collection and analysis of the quality of data according to good practices. • Ensuring that there is a good use of guides, guidelines and methodologies. • Participating in meetings and workshops related to the theme. • Participating in analysis and writing sectoral VA&A study reports. • Participating in the production of the general study report of VA&A. • Lead the analysis, synthesis, and the drafting of the report for the NC4. • Presenting the interim report to a pool of experts to scientific validation of studies and the final report in a national workshop.
<p>Qualifications:</p> <ul style="list-style-type: none"> • Have a graduate degree and/or postgraduate studies. • Have training in VA&A studies of the sectors concerned by the preparation of national communications on climate change. • Have good knowledge of the scientific aspects, impacts and adaptation strategies of climate change; • Have a good knowledge of guidelines, methodologies, scenario development tools. • Have at least five (05) years of professional experience.

**CONSTRAINTS AND GAPS, AND RELATED FINANCIAL, TECHNICAL AND CAPACITY NEEDS
CONSULTANT**

The goals, specific objectives, expected results and the duties of the TWG have been described earlier.

Main Tasks of the Consultant in the area of CG&RFTCN
Funding Earmarked (US\$): 15300 (31 person-days)
<p>The consultant on constraints and gaps studies, financial, technical and related capacity needs, in collaboration with the TWGs, the National Project Coordinator is responsible for:</p> <ul style="list-style-type: none"> • Reviewing and updating information on constraints, gaps and related financial, technical and capacity needs. • Collating, analyzing and preparing a report on financial resources, technology transfer, capacity building and technical assistance received from GEF, Annex II Parties and other developed country Parties and bilateral and multilateral institutions for actions related to climate change. • Analysing the adequacy of financing opportunities with the current needs in ROM. • Providing a framework for the continuous assessment and communication of constraints, gaps and related financial, technical and capacity needs and the support needed and received. • Participating in meetings and workshops related to the theme. • Lead the analysis, synthesis, and the drafting of the NC4 chapter on ‘Constraints and gaps, related financial, technical and capacity needs’. • Presenting the interim report to a pool of experts to scientific validation of studies and the final report in a national workshop.
Qualifications:
<p>The consultant must have:</p> <ul style="list-style-type: none"> • At least a degree in environmental management, sustainable development, climate change. • Have at least five (03) years of professional experience. • A good capacity for analysis and synthesis. • Good knowledge of the issue, the main challenges of climate change and the various instruments for implementing the Convention on Climate Change. • Good knowledge of climate finance and issues related to climate change. • Good aptitude in the areas of data and information collection, processing and synthesis.

CONSULTANT for LU MATRIX DEVELOPMENT

An additional Consultant will need to be recruited for the development and refining of land use matrices. Land use and land use changes matrices needs to be updated using Approach 2 or higher of the 2006 IPCC Guidelines to ensure consistency, completeness, and accuracy in the estimates.

Funding Earmarked (US\$): 8000- Equivalent to 16 working days

f. QUALITY ASSURANCE EXPERT

The 2006 IPCC Guidelines recommend that quality control be exercised by comparing emission results using alternative approaches, comparing results and investigating anomalies. They also recommend that control include review of emission factors, verification of activity data to ascertain source of data, and distinction in use where applicable, and to ensure avoidance of double counting.

All the data used will need to be reviewed during meetings with stakeholders.

All calculations made during the exercise should use approved standardised procedures for emissions calculations, measurements and documentations as per 2006 IPCC Guidelines.

A Quality Assurance Expert will be retained to review the draft NIR.

Funding Earmarked (US\$): 6000- Equivalent to 12 working days
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Duties and Responsibilities:

- Communicate quality standards, procedures and specifications;
- Ensure QA/QC through documentation of the methodologies and data sources use;
- Ensure QA/QC with regard to data collection, data entry and GHG calculation;
- Review and Update QA/QC, specific templates for activity data collection based on the 2006 IPCC Guidelines;
- Establish overall QA/QC procedures and ensure adherence to these for all activity data and emission factors;
- Provide support to TWG members on the application of, and adherence to processes and use of relevant procedures, templates and guidelines;

Qualifications:

Profile

- Holds a degree in a field relevant to the proposed position;
- Relevant experience (minimum 1 year) in Quality Assurance;
- Relevant experience in the applications of QA/QC to GHG emissions;
- Knowledge of IPCC Guidelines and National Communication;

Skills and competencies

- English proficiency (written and oral)
- Advanced writing skills including ability to summarize information and to provide clear instructions to non-specialist audience;
- Advanced Microsoft Office skills (knowledge of Access® is an asset);
- Ability to work as a team member or independently with minimal supervision;
- Ability to prioritize multiple and varied tasks efficiently and accurately;
- Excellent interpersonal, verbal and written communication skills;
- Ability to handle confidential information;
- Flexible attitude with respect to work assignments and new learning;

g. EDITOR

The Fourth National Communication Report will enable ROM to present required climate change information generated by the Fourth National Communication in a consistent, transparent and comparable manner taking into account specific guidelines and national circumstances. The proposed report is consistent with the “Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention” (COP Decision 17/CP.8).

ROM’s Fourth National Communication is composed of several chapters as mentioned in Table III.3 in section 3.2. which have been written by different authors. The information to be included in the report must be presented in a format consistent with the reporting guidelines for National Communications. The outputs from the various thematic areas will be incorporated into a synthesized document, for onward submission to the UNFCCC-COP. At the national level, it is anticipated that the report will inform and guide policy makers in responding to climate change impacts, understanding the cross cutting nature of climate change and the urgent need for mainstreaming climate change considerations into national development planning. In order to achieve this objective, the NC4 Project requires the services of a consultant to compile & edit the various chapters of the NC by analyzing and summarizing the relevant information submitted by each one of the experts in a way that is consistently referenced and ensuring that the information is reported in a manner that is effective and easy to read and understand without compromising the technical quality of the information that the authors intended to. Moreover, the consultant should also prepare and submit the Executive Summary Chapter.

Funding Earmarked (US\$): 8000

DESCRIPTION OF THE ASSIGNMENT

Specific objectives

The goal of this consultancy is to produce ROM’s Fourth National Report to the UNFCCC that reflects the quality and the standards established by the United Nations Reporting Guidelines for National Communications.

Tasks and responsibilities

- The Consultant is required to obtain the Comprehensive reports of the NC4 Thematic components and extract and summarize the most relevant information from the said comprehensive reports as per the requirements of the relevant documents; such as the UNFCCC Convention, the Guidelines for the Preparation of Fourth National Communication, NC4 Project Document.
- The consultant should incorporate information into a synthesized document and submit it as the final document “ROM’s Fourth National Communication”.
- The overall responsibility of the compiler/editor is to ensure that the final document of NC4 is presented in a manner that is correct, effective and easy to read and understand without compromising the information that the authors intended.

More precisely, the Consultant will be required to:

- Advise the NPC of any adjustment necessary for the successful delivery of a high quality final document.
- Prepare the Executive Summary Chapter
- Compile all chapters and relevant sections in a single document.
- Develop Table of contents; list of tables and figures; list of acronyms and abbreviations; glossary; layout chapters; references and appendices.
- Design Cover in collaboration with NPC;
- Ensure correct spellings, and appropriate word usage;
- Ensure correct grammar and syntax, names, and consistency of usage;
- Spell out all abbreviations/acronyms when first mentioned in the text, followed by only the acronym thereon,

- Ensure correlation between the list of acronyms in the table and their occurrence throughout the text.
- Ensure correct referencing.
- Apply correct/consistent line spacing and paragraphs/table formatting
- Apply correct numbering of chapters and/ or sub-chapters including correct reflection in the table of contents
- Use correct page numbering and consistent numbering of footnotes where applicable
- Apply appropriate and consistent positioning of annexes, boxes, figures and tables throughout the document.
- Check document, if figures and tables at the end of each annex are consistently referred to throughout the relevant chapter/ annex.
- Use consistent font (s) as relevant. Emphasize headings and sub-headings with appropriate font/format.
- Ensure numerical appropriateness in text. Number under 10 should be spelt out.
- Percentage should be read in the text as “per cent” instead of % or percentage.
- Check that the references are correctly listed following scientific standards
- Check document for redundancy of language or content in collaboration with the NPC.
- Advise the NPC on matters relating to redundancy, conciseness of text, and sequencing of material.
- Liaise with the NPC during the course of the consultancy.
- Work in Microsoft word. Submit drafts and final reports in electronic Microsoft word and PDF formats.

Expected Outputs

- A compiled draft version of Fourth National Communication, which also contains the Executive Summary chapter, in digital and hard copy formats.
- A compiled and revised final version of the Fourth National Communication, which includes the Executive Summary, in digital and hard copy formats.

EXPERT PROFILE

The individual must fulfil the minimum requirements hereunder:

(i) **Qualifications:** Degree in Environmental Sciences, Natural Resource Management or related discipline.

(ii) **Years of experience:**

- Previous experience in compilation/editorial work in the preparation of UN Reports; or other documents for international environmental conventions or any other relevant work.
- Preference will be given to persons with strong national experience in national communications.
- Demonstrated ability of analytical and drafting work;
- The candidate should be highly motivated and capable of working independently;
- Strong communication skills (verbal and written);
- Fluency in English;
- Strong Computer skills.

Duration and Remuneration

The Consultant will have periodic meetings with the NPC (via Skype or other medium). The Consultant will work under the guidance of the NPC. All reports and documents will be submitted to the NPC. The assignment is expected to be equivalent to 12 working days. The Consultant’s price proposal will include all expected costs of the assignment, including travel and allowances. It is not anticipated that any missions will be undertaken.