



# Master Plan for the Environment in Mauritius for the next decade

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MINISTRY OF ENVIRONMENT,  
SOLID WASTE MANAGEMENT  
AND CLIMATE CHANGE

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# Overview of the consultative process

By

Dr Z. Boodoo,

Environment Officer/Senior Environment Officer

Department of Environment

Ministry of Environment, Solid Waste  
Management and Climate Change



# Why are we here?

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More than a decade after the formulation of the National Environment Policy (NEP) 2007 and the review of the National Environmental Strategies (NES) in 2008,

- Revamping required

Need for a paradigm shift in our environmental policies, strategies and actions to address

- systemic barriers
- contemporary environmental challenges
  - that have emerged over time since the formulation of those guiding planning documents.
- to meet international obligations such as the Sustainable Development Goals, the Nationally Determined Contributions under the Paris Agreement and other commitments at the national level

# Background

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## Key Local Trends

- In 2018, solid wastes landfilled at Mare Chicose amounted to 543,197 tonnes, 12.7 % more than in 2017 (standing at 482,196 tonnes).
- Sea level rise of 5.6 mm/yr compared to the mean global of 3.2 mm/yr.
- Between 1967 and 2012, 17 % of our sandy shorelines have eroded. This corresponds to a rate of beach erosion of 0.2 m/yr, coupled with coral bleaching and reef degradation.
- The net greenhouse gas emissions in 2009 were 3.2 MT CO<sub>2</sub>-eq, rising to 3.5 MT CO<sub>2</sub>-eq in 2014 and 5.25 MT CO<sub>2</sub>-eq in 2018.
- 75 000 tonnes of plastic wastes are landfilled every year (representing 14 % of the solid municipal waste stream).
- Only 2,000 to 3,000 tonnes (about 3 - 4%) are recycled yearly, either locally or through export
- Loss of Environmentally Sensitive Areas: 90 % of wetlands in the North (representing 66 % loss)

# Key international indices

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## Positive Trends

Between 1990 and 2018, Mauritius' HDI value increased from **0.620 (75<sup>th</sup>)** to **0.796**, an **increase of 28.4 percent**.

Mauritius remains the **top ranking country in overall governance in Africa** for the twelfth consecutive year within the **Mo Ibrahim Index of African Governance**

World Risk Report ranking for Mauritius has improved from being **13<sup>th</sup> with the highest disaster risk in 2015** to being **16<sup>th</sup> in 2018** and now **47<sup>th</sup> in 2019**

## Negative Trends

Mauritius ' Earth Overshoot Day on **18 June 2019**

Mauritius' **EPI** score declined from **77.85** in 2016 to **45.1** in 2020: Biodiversity, forests, climate and energy.

**IUCN** listing: Mauritius rated as the **third country** in the world after Hawaii and Canary Islands to have the most threatened plant species.

Decline in SDG Index: Mauritius was ranked **90<sup>th</sup> out of 156** countries with **score 64.5** in **2018** while it was ranked **105<sup>th</sup> on 162 countries** with score **63.6** in **2019**.

# Recap of events

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## Consultations

- Assises de L'Environnement (16 – 17 Dec. 2019)
  - More than 400 participants from some 200 institutions participated in the event
- Call for on-line and written comments (18 Dec. 2019 – 15 Jan. 2020)
  - Extensive feedback (around 80 written proposals) received from stakeholders
- Focused thematic meetings (Jan. 2020 – Mar. 2020)
  - Around 15 thematic meetings and a series of meetings on easily implementable recommendations formulated

# Recap of events

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## Report write-up and consultations with higher management

- March 2020 – October 2020
- At least 30 hours of consultations with higher management (March – May 2020)
- Consultations in Rodrigues (July and December 2020)

## Recruitment of international and national consultants

- With support of UNDP CO, recruited finalised in November 2020
- International expert in sustainable development (institutional expert & editor)
- International legal expert and Local legal expert to address a deep review of the environmental legislative framework

## Status as-to-date

- Draft report
- Presentation of key outcomes to local stakeholders in plenary sessions (today and tomorrow)

# Structure of the report

The Master Plan is organised in 2 parts:

- Part I, consisting of
  - An Introduction (methodology and approaches);
  - A review of global best practices
  - Cross-cutting/overarching policy and strategic orientations;
  - Thematic Policies and Strategies - for Mauritius and Rodrigues;
  - Conclusions and Way forward
- Part II consisting of
  - an Action Plan for implementing the Policy and Strategy Recommendations
    - For Mauritius; and
    - For Rodrigues

Coverage of today's consultative workshop:

- Part 1 of the draft Masterplan



# Scope of the Master Plan

## Geographical scope

- Mainland Mauritius and Outer Islands

## Policy Scope

- revolve around the 8 themes of the Assises
  - i.e. La culture environnementale, Le changement climatique, Zones côtières et environnement marin, Biodiversité et ressources naturelles, La gestion des déchets, Contrôle des déchets plastiques, Lutte contre la pollution & Urbanisme et politique environnementale
- are complementary and additional to current policy frameworks that shape the measures implemented by different ministries having a link with those 8 themes.
- is not comprehensive in nature
  - but attempts, to the extent possible, to include environmental issues such as transport, wastewater, tourism, fisheries, agriculture, energy, amongst others
- Is based on
  - Expert local knowledge, logical argumentations, inputs from community and civil society organisations, and backed with evidence where available.

# Methodology and Analytical Procedures

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## 1. Outcomes of consultations were analysed in terms of

- Where we are? – gaps and needs
- Where we want to go? – envisioning of a desirable future
- How to get there? – policy recommendations, sequencing/prioritisation of measures, action plan, responsibilities and estimated costs

## 2. Draft thematic policy and strategic orientations, as well as action plans were then devised by an **iterative process** moving along the causality chain

- from gaps and needs identified,
- through policy recommendations required to address those gaps and needs,
- through strategic orientations that need to be adopted to implement those policies, and
- to actions required to operationalise those strategies.

- Care was taken, to the extent possible, so as to form a coherent narrative across the causality chain
- The process also consisted of identifying and analysing best international environmental practices from a sample of countries and regions to inform the analysis and align with global best practices, where possible.

# Methodology and Analytical Procedures

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3. Based on the policy orientations generated,

- a vision describing the long-term objectives for each theme was devised, and
- based on thematic visions, an overall 10-year strategic vision was formulated

4. Common elements emerging from these analytical procedures were pooled out

- to describe strategic overarching policies to address systemic issues for an upstream transformational change of the environment sector in the Republic of Mauritius



# Draft Overarching policies and strategies

Mr J. Seewoobaduth,  
Ag. Director of Environment

# Gaps and needs identified from consultations

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- Inadequate legal and institutional framework and set ups;
- Lack of engagement at the level of institutions and the public;
- Institutions working in silos;
- Overlapping and unclear mandates of institutions;
- Limited understanding of environmental issues;
- Lack of integration of environmental considerations into planning instruments;
- Inadequate land use planning and zoning;
- Lack of baseline data as well as lack of access to data;
- Inadequate enforcement;
- Lack of research and development; and
- Lack of funding.

# Thematic long-term objectives formulated

Theme	Long term objective/vision
Culture environnementale	➤ A vibrant, thriving environmental culture is established and nurtured in Mauritius, in which environmental values are deeply enshrined and eco-friendly attitudes, behaviours and actions are adopted to achieve the Sustainable Development Goals (SDGs).
Le changement climatique	➤ Make Mauritius a climate-resilient state, in line with Sustainable Development Goal 13 and Agenda 2063 and achieve a low-emission economy while aiming at carbon neutrality by 2070.
Zones côtières et environnement marin	➤ A coastal zone resilient to natural hazards, climate change-related and anthropogenic impacts, where a right balance is struck between our coastal ecosystems and development, where the right of the public to enjoy their natural heritage is protected and marine resources including biodiversity are preserved so as to allow the sustainability of livelihoods.
Biodiversité et ressources naturelles	<ul style="list-style-type: none"><li>➤ Effective conservation, sustainable use and restoration of native biodiversity and its ecosystems in line with national and international commitments, increasing resilience and adaptation.</li><li>➤ Healthy, well-functioning and resilient ecosystems providing economic, social and environmental benefits.</li><li>➤ A society in which all stakeholders including population, authorities, public and private sectors and Non-Governmental Organisations take on board the valuation of ecosystem services and functions and are active in biodiversity conservation and whereby all institutions are empowered to mainstream biodiversity into decision-making, including natural capital accounting and in line with Sustainable Development Goals.</li></ul>

# Thematic long-term objectives formulated

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Theme	Long term objective/vision
La gestion des déchets	<ul style="list-style-type: none"><li>➤ Reduction in the amount of solid wastes requiring disposal and increasing the lifespan of the Mare Chicose landfill</li><li>➤ Shifting towards a circular economy to enhance resource recovery and recycling and reducing pressure on the landfill</li></ul>
Contrôle des déchets plastiques	<ul style="list-style-type: none"><li>➤ To promote circularity in the Republic of Mauritius and encourage a paradigm shift onto the misuse of plastics, thereby reducing the amount of plastic waste entering the environment, in line with Sustainable Development Goals 3, 12 and 14.</li><li>➤ To ban problematic single use plastics by 2030.</li></ul>
Lutte contre la pollution	<ul style="list-style-type: none"><li>➤ A healthy environment for the wellbeing of a society, in which the public in general and undertakings are compliant to environmental standards, adopt best environmental practices including cleaner approaches, whereby they are accountable for their actions for a cleaner, greener and safer Mauritius.</li></ul>
Urbanisme et politique environnementale	<ul style="list-style-type: none"><li>➤ A clean and green environment with effective ecosystem services to sustain human wellbeing, livelihoods and resilient societies.</li></ul>

# Overall vision

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To achieve a cleaner, greener, environmentally sustainable, climate change resilient, low emission and circular economy, where environmental conservation, protection and management are enshrined in the culture of citizens and all organisations.

*[Sound environmental conservation, protection and management are devised and implemented in partnerships with all targets groups, in particular, youth, gender, civil society organisations and other social groups in line with Government Programme, the Sustainable Development Goals and the Nationally Determined Contributions for a sustained, inclusive and sustainable socio economic development and wellbeing of the citizens of Mauritius]*



# Review of global best practices

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Countries/regions covered comprise of

- Nordic countries
  - Denmark, Finland, Iceland, Norway, Sweden
- Asian countries
  - Japan, Singapore, India
- European countries
  - European Union block, Portugal, Spain, France, Netherlands, Scotland, United Kingdom
- Australia
  - Sydney
- African countries
  - Kenya, South Africa, Nigeria, Zambia
- Others
  - Hawaii, Canada

# Examples of global best practices

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- Inter-Parliamentary group (UK, Scotland, Zambia)
- Environmental rights in the constitution (Nigeria, Kenya, South Africa, France, Spain, Portugal, India)
- Green buildings, Low-carbon transport/Green Mobility (Nordics, Australia)
- Natural capital accounting (UK, Spain)
- Strategic Environment Assessment (Netherlands, Scotland, Japan)
- Observatoire de l'Environnement (France)
- Circular Economy, Climate Neutrality, Research and Development, Innovation (European Union, Nordics)
- Clean Air Policy, Carbon tax (Singapore)
- Sustainable lifestyles (Japan)
- Circular economy clusters (Nordics)
- Climate Change Act (Nordics, UK)

# Overarching strategic orientations

To review our overarching constitutional rights

## Rationale:

- the incorporation of the right to a healthy environment in a country's constitution leads directly to
  - Stronger environmental laws, and
  - Court decisions defending the right from violations.
  - Improved ability to implement and enforce environmental laws and policies;
  - Greater citizen participation in environmental decision making;
  - Increased accountability;
  - Reduction in environmental injustices;
  - A level playing field with social and economic rights; and
  - Better environmental performance.

## Cross-cutting recommendation 1:

- To explore the possibility of including “the right to a clean environment” and/or “the promotion of the fight against climate change” within our constitution.

# Overarching strategic orientations

Adopt a cross-parliamentary approach to environmental protection

## Rationale:

- Environmental issues are systemic in nature
  - they typically involve interactions amongst a host of different socio-economic and institutional processes that co-evolves with technologies over long periods of time, creating lock-ins and making them resistant to fundamental and far-reaching change
- Proper environmental management requires planning over much longer time frames than that of short-term political cycles
  - e.g. climate change mitigation planning towards carbon neutrality may require 30-year to 50-year plans
- Concerns were raised regarding the fact that changes in political administrations may entail a parking/downgrading of policies elaborated by previous ruling parties.
  - Such short-term adversarial partisan culture can spill over environmental governance matters, thereby hampering sustain long term environmental planning.

## Cross-cutting recommendation 2:

- To set up a cross-party Parliamentary Environment and Climate Change Caucus

# Overarching strategic orientations

Review our development model to enable a sustainability transition

## Rationale

- Against the backdrop of worsening climate change with frequent and more severe disasters, ozone depletion, unsustainable consumption and production and increasing pressure on our natural resources and assets, our development challenges have evolved
- At a global stage, traditional linear consumption patterns ('take-make-dispose') are coming up against constraints on the availability of resources.
- A mere quick fix in policies re-orientations will not suffice.

## Cross-cutting recommendation 3:

- Promote circular economy as an overarching paradigm shift through establishment of circular economy clusters

## Cross-cutting recommendation 4:

- Integrate Natural Capital Accounting within National Accounts to enable informed decision-making on matters impacting the environment

## Cross-cutting recommendation 5:

- Develop and implement a climate change mitigation roadmap to achieve climate neutrality within the long term, along with a set base year and target year

# Overarching strategic orientations

## Strengthen our Development Control Mechanisms

### Rationale

- Land is limited in Mauritius, with most of prime lands having already been developed.
- Developments are now being proposed on difficult sites and environmentally sensitive areas such as sloppy land, islet and wetlands.
- Careful land-use planning is now a necessity, especially given that the negative impacts of projects on the environment are becoming more complex, larger in scale and further reaching in their potential consequences than few years back.

### Cross-cutting recommendation 6:

- Development of a Strategic Environment Assessment (SEA) framework to enable conduct and review of SEA at district level/ Local Authorities jurisdictions and ultimately, allow developments only within the carrying capacity of ecosystems.

### Cross-cutting recommendation 7:

- All Environmentally Sensitive Areas to be legally protected and conserved. For ESAs of prime importance situated in private domain, Government to acquire these and promote nature-based solutions as a strategy to enhance resilience to climate change impacts.

### Cross-cutting recommendation 8:

- To integrate environmental sensitive areas in National Development Strategies and land-use planning process and documents such as Outline Planning Schemes

# Overarching strategic orientations

Strengthen the legal and institutional framework for environmental protection

## Rationale

- Scattered responsibilities among enforcing agencies with piecemeal/sectoral approach favoured.
- Poor law enforcement in Mauritius, including prosecution
- The deterrence aspect of environmental regulations is not influencing the behaviour of polluters, who are able to continue emitting pollutants in the environment.
- Lack of competencies in specific issues
- Limited influence of the Ministry of Environment on other dimensions of sustainable dvpt.
- The scale and character of sustainability challenges faced today requires moving away from addressing individual issues based on linear cause-effect principles, towards acknowledging multi-causality and systemic causes.

## Cross-cutting recommendation 9:

- To review, strengthen, harmonise the Environment Protection Act and other environmental laws, along with a re-engineered institutional frameworks for a more effective environmental management, protection and stricter enforcement mechanism.

## Cross-cutting recommendation 10:

- Consideration of a legislative framework addressing Sustainable Development (e.g. a SD Bill) and the Establishment of Sustainable Development Council to holistically plan and guide development across the economic, social and environmental dimensions.

## Cross-cutting recommendation 11:

- Establishment of a Council for Environmental Experts and Practitioners to ensure, inter alia, continuous capacity and skill development.

## Cross-cutting recommendation 12:

- Setting up of an Environment Expert Group (Think Tank) comprising independent experts and practitioners under the Ministry of Environment to advise on issues (with limited in house expertise)

# Overarching strategic orientations

Reinvigorate environmental stewardship at all levels

## Rationale

- Despite sustained efforts over the years, evidence shows that irresponsible behaviours such as littering, dumping, noise pollution, unsustainable practices, as well as a lack of engagement on environmental matters are still the norm.
- There is a need to re-think and reinvigorate our environmental stewardship policies and strategies at all levels regarding more contemporary means to instill environmental stewardship

## Cross-cutting recommendation 13

- Implement a mandatory environmental charter for all public and private bodies defining their engagement for implementation of environmental measures and lowering of carbon footprint and establishment of a reporting mechanism.

## Cross-cutting recommendation 14

- Enhanced empowerment of stakeholders to help in protecting the environment through measures such as
  - establishment of a forum for NGOs and social groups on environmental issues,
  - encourage private sector support for NGOs and CSOs programs on the environment,
  - promote mechanism for community watch,
  - implement an Environmental Whistle Blower program,
  - add new themes to current scope of CSR funding,
  - creation of environment clubs at Village Council level to spearhead village greening and monitor cleaning,
  - setting of Environment volunteers programme,
  - encourage creation of backyard/ kitchen gardens.

## Cross-cutting recommendation 15

- Mandatory greening of all public and private infrastructure, businesses and commercial activities

## Cross-cutting recommendation 16

- Allocation/ Acquisition of lands for the setting up of a community gardens, green areas and health tracks in all villages and towns where there are no such facilities



# Overarching strategic orientations

Better mobilising resources for environmental protection

## Rationale

- Despite spending a massive amount of Rs 10.28 Billion from the national budget on climate-related measures and recently, Rs 2 Billion in the NEF, the gap in funding required to implement measures and commitments such as the NDCs under the Paris Agreement (representing around Rs 190 Billion) is massive.
- There is thus a crucial need to enhance efficiency in investments for environmental measures and boost resources mobilisation for environment protection

## Cross-cutting recommendation 17

- Use of innovative economic instruments and provide targeted fiscal incentives (e.g. crowdfunding, new forms of PPPs, green bonds) for environmental protection

## Cross-cutting recommendation 18

- Restyle the “Corporate Social Responsibility” funding as the “Corporate Social and Environmental Responsibility” to include new eligible projects targeting a wider range of environmental issues of concern

## Cross-cutting recommendation 19

- Introduction of a revised carbon tax for vehicles and other economic instruments to green the transport sector.

## Cross-cutting recommendation 20

- Introduction of new fiscal measures such as private sector sponsorship to communities as an encouragement to participate in activities related to frequent maintenance of public places and ecosystem services as well as adoption of ESAs across the Island.

## Cross-cutting recommendation 21

- Establishment of a donor’s coordination mechanism under the Ministry of Environment for a sustainable approach in environmental protection and conservation.

## Cross-cutting recommendation 22

- Tasking the Multilateral Environment Agreement Committee to explore all potential windows for optimal resource mobilisation from international funding institutions, donors, bilateral cooperation, and regional organisations to meet the requirements of global multilateral environment agreements

# Overarching strategic orientations

Improve transparency and communication with stakeholders

## Rationale

- Addressing environmental challenges requires a careful assessment of information from a variety of sectors and sources.
- This is particularly relevant given that the outcomes of environmental policies may have a strong impact on those who have either a direct or an indirect stake at hand.
- Hence, the creation and accumulation of robust bodies of knowledge, along with their dissemination, use and integration in decision support are essential to improve the use of evidence in decision making.
- To address these issues and more broadly, better communicate on the frameworks within which the decision making processes are made at the level of government, as well as ensuring the buy-in of stakeholders, an improved and sustained communication strategy is now due.

## Cross-cutting recommendation 23

- Setting up of an “ Observatoire de l’Environnement” under the aegis of the Ministry of Environment, to monitor and communicate on the environmental performance index/ health of environmental media, and sharing of best practices

# Overarching strategic orientations

Enhance research and innovation on environment issues

## Rationale

- Up-to date scientific and technological research is vital to allow humans to adopt appropriately to our changing environment, as well as to current rates of environmental degradation and resource depletion.
- Effective research policies thus are essential to maintain or improve the quality of life and well-being of population.
- There is a need to bridge the current applied research and development gap and needs within the environment sector

## Cross-cutting recommendation 24

- To support and enhance applied research and innovation on environment issues.

# Thematic strategies and Action Plans

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Thematic recommendations will be covered during tomorrow's session

A five year Action Plan has also been elaborated

The time frame for the implementation of the action plan is subdivided into:

- Immediate (Quick Wins): 0-6 months
- Short Term: 6 months – 2 years
- Medium Term: 2 – 4 years
- Long Term: 4 – 5 years

The Action Plan also details out the estimated costs and the responsible agencies for the implementation of the actions

# Conclusions

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To rise to the challenges of meeting its national and international commitments, a fundamental paradigm shift and overhaul of the current policy framework is required

- This will enable the Republic of Mauritius to embark on the pathway of a sustainability transition

The analysis undertaken reveals

- policies and strategic orientations that are new (additional) and complementary to existing ones, comprising of
  - 9 overarching strategic policy orientations, comprising of 24 cross-cutting recommendations
  - a panoply of measures embedded within thematic action plans

# Conclusions

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Implementing the recommendations formulated requires;

- coordinated and sustained efforts from all actors,
- institutional re-organisations,
- legal reviews,
- behavioural change and a change in mind-set,
- strong political support, and
- strong financial support, amongst others.

# Limitations

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Public policies are devised despite profound uncertainties about the future. The environment sector being dynamic, scenarios change even more rapidly. Therefore, environmental policy recommendations formulated **should not be viewed as static**.

- Policy recommendations formulated must be understood as being adaptive, with re-orientations required as new information is collected or unthought-of scenarios unfold – e.g. it is not yet clear to what extent the socio-economic impacts of COVID-19 will limit the availability of resources for environmental protection

Recommendations formulated are **non-exhaustive** in nature

- there are a number of issues such as Wastewater, Tourism, Fisheries, Transport, Pesticides, Mercury, Agriculture and Energy-sector issues, which do not explicitly fall under the 8 themes discussed, but which have an impact on the environment sector. To the extent possible, recommendations have been formulated to address those also, but these are non-exhaustive.
- The recent policy orientations for these other sectors/fields/issues thus remain valid.

# Limitations

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Contemporary environmental policy-making calls for scientific support to anticipate the possible consequences of optional policy decisions on social, economic and environmental variables of a system, e.g. through

- evidence-based methods, ex-ante impact assessments, scenario analyses, accounting approaches, quantitative forecasting and backcasting models, etc

Within the limited time and resources available, mostly linear analyses of causal chain relationships between policy-induced system changes and corresponding system responses were used.

- Analyses conducted were based, to a large extent, on expert local knowledge in the field, with inputs from the community and civil society organisations and backed with statistical evidences, where available.



# Limitations

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Recommendations formulated within this report can thus be described as “policy orientations” or “policy aspirations” co-constructed through discussions with a broad base of local stakeholders, the strategic orientations of which may be pursued and action plans implemented pending further in-depth analysis.

Further technical analysis in term of feasibility studies and detailed assessments will be required to achieve the long term vision for an ecological transition.

- This may be sought from the recruitment of consultancy firms with specialised skills in this field. The support of donors may be explored to that end.

# Way forward

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During and immediately after this workshop

- Comments raised today and tomorrow will be captured and taken on board by consultants to finalise the Masterplan

In 2021

- A final validation workshop will be conducted in February 2021
- Process-wise, the approval of the Cabinet of Ministers will be sought then after to ensure political buy-in
- Meetings will be held with donors, bilateral partners and international funding mechanisms will be pursued.
  - The approved Master Plan for Environment, along with other approved policy documents, will be construed as the basis for raising support and funding from national, regional and international sources for environment;
- A committee under the chair of the Minister of Environment is established to monitor the implementation of the measures recommended and report to the Cabinet on a bi-annual basis; and
- Implementation and further detailed assessment /studies, where required, be carried as recommended.



Thank you for your attention

December 16, 2020



# QnA session