

# FACILITATIVE SHARING OF VIEWS – NAMIBIA

7 December 2018

# Presentation outline

Part I: Summary of BUR and recent development National context

- ❖ GHG inventory
- ❖ Mitigation actions and effect
- ❖ Barriers and support needed and received

Part II: Experience and lessons learned in participating in the ICA process

Part III: Response to questions received

# Relevant facts

- Namibia is an upper middle income country situated in South-Western Africa
- Population of 2.2 Million
- Namibia is one of the biggest and driest countries in sub-Saharan Africa
- Rainfall ranges from an average of 25 mm in the west to over 600 mm in the northeast
- Thus making it one of the most vulnerable countries to climate change
- More than 50% of the population depend on rain-fed agriculture
- Two agricultural systems
- Imports more than 60% of its energy needs



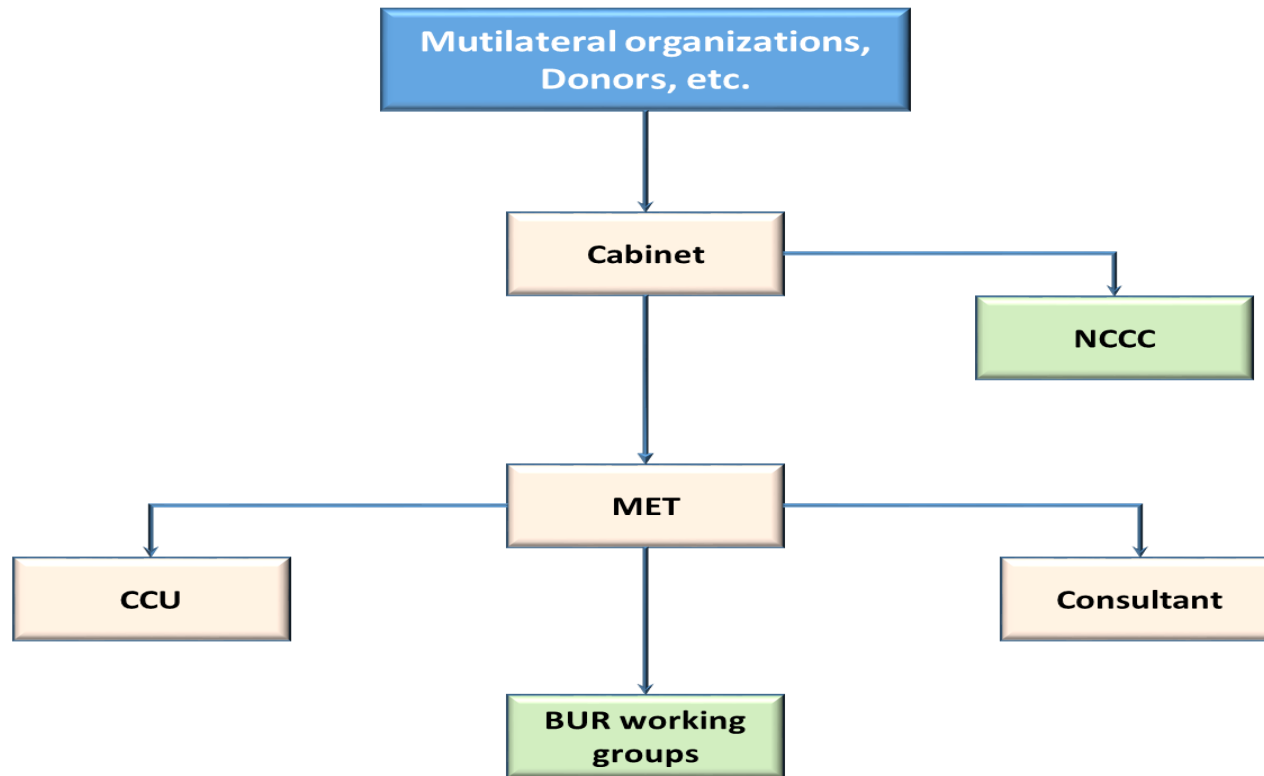
# Reporting Compliance

- Initial National Communication in 2001
- Second National Communication in 2011
- First Biennial Update Report in 2014
- Third National Communication in 2015
  - Stand alone NIR 2000-2010
- Second Biennial Update Report in 2016
  - Stand alone NIR 2000-2012
- Third Biennial Update Report in 2018
  - Stand alone NIR 1994-2014
- Fourth National Communication in 2019

# Institutional Arrangements

- Ministry of Environment and Tourism focal point for coordinating all climate change issues in Namibia
- A Climate Change Unit has been established under MET
- Multi-sectoral National Climate Change Committee established to advise government on climate change issues
- NCs/BURs Project Management Unit housed in the CCU
- Various working groups established for the various components of the NCs and BURs
- Working groups are being continuously reviewed and capacity building is still on-going
- Currently they are serving as data providers

# Overall institutional arrangements for NCs & BURs



# GHG inventory

- The trends of GHG emissions for the Republic of Namibia cover the period 2000 to 2012
- Availability of more disaggregated data enabled the adoption of higher Tier methods, namely a combination of Tiers 1 and 2 for compiling this inventory
- The IPCC 2006 guidelines and software were used
- Namibia remained a net GHG sink over the period 2000 to 2010 because of the Land sector removals exceeding emissions
- However, following the steady decrease of the removals, this situation changed as from 2011 when national emissions exceeded removals
- The net removal of CO<sub>2</sub> thus declined from 17 070 Gg to only 121 Gg in 2010
- In 2011 and 2012, the country recorded net emissions of 3088 Gg CO<sub>2</sub>-eq and 5240 Gg CO<sub>2</sub>-eq respectively
- This has however been recalculated as the maps used under BUR2 were not accurate and new data and studies have been obtained

# GHG emissions by Sector (Gg CO2-eq)

| Source Categories      | 2000         | 2002         | 2004         | 2006         | 2008         | 2010         | 2011         | 2012         |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Total Emissions</b> | <b>27389</b> | <b>27772</b> | <b>28336</b> | <b>28532</b> | <b>29394</b> | <b>28414</b> | <b>30206</b> | <b>30692</b> |
| Energy                 | 1995         | 2269         | 2562         | 2795         | 2981         | 2904         | 2851         | 2979         |
| Industrial Processes   | 25           | 26           | 235          | 255          | 291          | 302          | 421          | 523          |
| AFOLU                  | 25274        | 25378        | 25427        | 25359        | 25992        | 25062        | 26779        | 27028        |
| Waste                  | 96           | 99           | 113          | 123          | 130          | 145          | 155          | 162          |

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# Mitigation

- Namibia submitted its NDC where it set itself a target of reducing its GHG emissions by 89% by 2030 compared to BAU
- The projected GHG emissions to be avoided in 2030 is of the order of 20000 Gg CO<sub>2</sub>-eq inclusive of sequestration in the AFOLU sector and compared to the BAU scenario
- The contribution will be economy-wide and addresses the Intergovernmental Panel on Climate Change (IPCC) sectors

# Summary of Mitigation actions

| Name of Action               | Main Objective  | Description  | GHG Reductions   | Co-benefits  |
|------------------------------|---|--|--|--|
| <b>AFOLU</b>                 |   |  |  |  |
| Forestation / Restoration    | Increase area of forests in order to form a carbon sink     | <u>Programmes:</u> Afforest 5000 ha per year (INDC Measure) (Ongoing), Plant 5000 ha of arboriculture per year (INDC Measure) (Planned), Reforest 20 000 ha per year (INDC Measure) (Ongoing), Restore 15 M ha of grassland (INDC Measure) (Ongoing) | 4 074 000 t CO <sub>2</sub> -eq/yr (potential, conditional)  | Job creation; contribution to food safety; increased carrying capacity of rangeland; poverty alleviation; conservation of biodiversity             |
| Reduce Deforestation         | Reduce deforestation to maintain existing carbon sink       | <u>Programmes:</u> Reduce deforestation rate by 75 % (INDC Measure) (Ongoing). The strategy is to be revised), Reduce removal of wood by 50 % (INDC Measure) (Ongoing)   | 14 238 000 t CO <sub>2</sub> -eq/yr (potential, conditional) | Conservation of biodiversity; improved ecosystems; increased tourism.  |
| Reduce Enteric Fermentation  | Reduce growth time of cattle to decrease emissions per unit | <u>Programme:</u> Fatten 50 000 cattle heads in feedlots (INDC Measure) (Planned)  | 201 000 t CO <sub>2</sub> -eq/yr (potential, conditional)    | Contribution to food safety; manure management (collection of manure for energy production and fertilizers); improved livelihood of local farmers. |
| Reduce Soil Carbon Emissions | Reduce carbon emissions associated with soil                | <u>Programme:</u> Soil carbon (INDC Measure) (Ongoing)   | 180 000 t CO <sub>2</sub> -eq/yr (potential, conditional)    | Contribution to food safety; decreased soil erosion.   |

# Summary of Mitigation actions cont...

| Energy            |  |  |   |  |
|-------------------|--|--|---|--|
| Cross-cutting     | Reduce emissions associated with the energy sector               | <p><u>Policies:</u> NCCASP (Ongoing), Rural Electricity Distribution Master Plan (REDMP), 2010 (Reviewed and updated every 5 years), <u>Programmes:</u> I&amp;FF, REEECAP (Completed), <u>Project:</u> NAMA Intervention B (Proposal developed and submitted into the NAMA Registry), OGEMP, 2007 (Implementation begun in 2011, runs for 20 years); Mass transport in Windhoek, car and freight pooling (INDC Measure), Xaris gas power plant (Ongoing tendering stage), Kudu Gas-to-Power Project (decision pending)</p>   | Additional 510 000 t CO <sub>2</sub> -eq/yr (potential, conditional)  | Improved livelihoods; poverty alleviation; community upliftment; decreased reliance on fossil fuels; increased access to electricity; small business creation and promotion of entrepreneurs.  |
| Renewable Energy  | Increase share of renewable energy sources in the market         | <p><u>Policies:</u> Draft IPP Framework, 2016 (Suggested completion date late 2016); Solar Thermal Technology Roadmap for Namibia (Ongoing), RE Policy for Namibia, 2016 (Finalised 2016) <u>Programmes:</u> CSP TT (Ongoing), Photovoltaic water pumps (Completed in 2004), Support to De-bushing (Ongoing), The CBEND Project (Power plant completed but not in operation), NAMREP (Complete), The Solar Thermal Training and Demonstration Initiative: SOLTRAIN Project (Phase 1 &amp; 2 completed, Phase 3 underway) <u>Projects:</u> Rooftop Solar PV (Commercial Net -metering), e.g. Solar PV grid tied system at Spar (Planned before end of 2016), Biomass harvesting and power plants (Planned), REFIT Programme: Solar PV and Wind energy (Ongoing), Baynes HydroPower Project (Agreed to proceed with implementation), Ruacana hydro project 4th turbine (Completed)</p> | Additional 740 000 t CO <sub>2</sub> -eq/yr (potential, conditional); 955 600 t CO <sub>2</sub> -eq/yr (achieved, measured) | Community upliftment; decreased reliance on fossil fuels; increased access to electricity; small business creation and promotion of entrepreneurs; job creation; GDP growth due to sale of electricity to neighbouring countries (decreased reliance on neighbouring countries for electricity); increased Foreign Direct Investment; skills creation; improved quality of life; improved health; decrease in pollution. |
| Energy Efficiency | Reduce Namibian energy consumption relative to economic activity | <p><u>Programme:</u> Namibia Energy Efficiency Programme (NEEP) in buildings (Completed, 2010-2014), <u>Project:</u> 1M LED Campaign (Ongoing)</p>   | Additional 51 000 t CO <sub>2</sub> -eq/yr (potential, conditional); 17 000 t CO <sub>2</sub> -eq/yr (achieved, measured)   | Cost savings; improved lighting; increase in number of children educated; decrease in waste from longer lasting bulbs.   |

# Summary of Mitigation actions cont....

| IPPU                |  |  |  |  |
|---------------------|--|--|--|--|
| Clinker Replacement | Reduce emissions resulting from the production of clinker              | <u>Project:</u> Clinker reduction through replacement with similar production (extending process) at Ohorongo cement production (INDC Measure) (Planned)   | 36 000 t CO <sub>2</sub> -eq/yr (potential, conditional)   | None   |
| Waste               |  |  |  |  |
| Waste to Energy     | Increase share of electricity generated from waste to energy processes | <u>Program:</u> Transform 50% of Municipal Solid Waste (MSW) to electricity and compost (INDC Measure) <u>Project:</u> Waste to energy projects under the CDM (Ranges from planned to implemented) | 205 t CO <sub>2</sub> -eq/yr (potential, conditional), 7 900 t CO <sub>2</sub> -eq/yr (expected as part of CDM projects) | Improved health; improved hygiene; job creation; decentralized generation of electricity (6-12 MW) for each of the three major municipalities. |

# Namibia's NAMA

- Namibia has developed its first NAMA and it has been deposited into the UNFCCC NAMA registry
- The NAMA represents an opportunity for sustainable development for Namibia, and at the same time an opportunity for mitigation
- The aim of the NAMA is to support Namibia in achieving the goal defined in the OGEMP, which is to:
  - “provide access to electricity to the population living or working in off-grid areas through the adoption of appropriate technologies that will enable reduction of GHG emissions compared to extension of the grid and generation of electricity from fossil fuel energy sources”*
- The NAMA aims at giving access to electricity for regions, households and companies which are currently without access to electricity, as well as improving the share of renewable energies
- Finally, the NAMA aims to achieve additional sustainable development benefits, such as better air quality, job creation and improved livelihoods for the poor

# Domestic MRV

- Prior to the publication of BUR1 Namibia did not have a system to track mitigation benefits in terms of emission reductions or sink enhancements as well as indirect returns
- However, efforts have been made to develop systems and build capacity domestically to sustainably assess and report mitigation actions within the framework of the UNFCCC
- Namibia has an M&E system to monitor its development agenda as laid out in its NDPs, which is done by the NPC
- The suggested MRV since BUR1 was to integrate climate change MRV into M&E
- Namibia is experiencing challenges integrating climate change MRV into the NPC's M&E system
- Progress has been made but there remain challenges relating to:
  - Availability of data and resources required to gather and manage relevant data
  - Capacity to undertake mitigation assessments; and
  - Formalised roles and responsibilities to which institutions and individuals are held accountable
- This has further been improved on under BUR3

# Capacity & Technical needs

| Activity  | Status  | Support needed   | Support received  | Additional support needed   |
|---|---------|--|---|---|
| Preparation of BUR and NCs (Strengthen existing institutional arrangements) | Ongoing | Additional technical assistance from partners and resource persons or consultants  | Some technical assistance and capacity building under the UNFCCC GHG inventory capacity building project, Consultants with the GEF funds  | Specific technical assistance to analyze weaknesses and propose solutions for enhancing the existing institutional arrangements   |
| Preparation of BUR (enhance coordination)                                   | Ongoing | Technical assistance from partners and resource persons or consultants   | Consultant contracted with the BUR2 GEF funds   | Further technical assistance and or resource persons to prepare a Guidebook on this issue   |
| Preparation of BUR (compile GHG inventories)                                | Ongoing | Further capacity building on generating missing AD, computing emissions, undertaking Uncertainty estimates, running the LAND module of the IPCC 2006 software and applying the EMEP Corinair methods | Some capacity building for running the ALU software under the UNFCCC GHG inventory capacity building project, IPCC training on the 2006 Guidelines and Consultant contracted with the BUR GEF funds | Further technical assistance on generating missing AD, computing emissions, undertaking Uncertainty estimates, running the LAND module of the IPCC 2006 software and applying the EMEP Corinair methods |

|   |                     |  |  |  |
|---|---------------------|--|--|--|
| Preparation of BUR and NCs (Prepare maps for refining the FOLU component) | Planned             | Funds lacking under BUR2 to realize this activity. Assistance for correcting satellite images, producing reliable land cover land use maps and generating land use changes over time | Very minimal technical assistance and capacity building under the UNFCCC GHG inventory capacity building project | Further technical assistance for correcting satellite images, producing reliable land cover land use maps and generating land use changes over the period 1990 to 2015 at 5 years' intervals |
| Preparation of BUR (develop and implement MRV)                            | Planned             | Technical assistance from partners and resource persons or consultants   | None   | Further technical assistance and or resource persons to be contracted with future GEF allocations for the next BUR preparation   |
| Preparation of BUR (assess outcomes of mitigation actions)                | Ongoing and planned | Technical assistance from partners and resource persons or consultants   | Consultant with the BUR GEF funds  | Further technical assistance and or resource persons to be contracted with future GEF allocations for the next BUR preparation   |
| Improve knowledge of market mechanisms linked to mitigation               | Planned             | Assistance to enhance capacities to understand and take advantage of existing market mechanisms for developing mitigation and adaptation projects                                    | None   |  |
| Resource mobilization (funds)   | Planned             | Assistance for building capacity of national experts to prepare projects of the required standard to attract investors   | None   |  |



# Challenges, Obstacles and barriers

- Availability or the non-availability of Activity data is one of the key challenges Namibia faces
- Lack of capacity of key stakeholders serving on the different working groups under the BURs & NCs
- Low availability of technical staff both within MET and key stakeholders
- Staff-turnover and availability of experts to attend to BURs and NCs activities
- Lack of political will at the high level
- Limited funding from domestic resources for NCs and BURs preparations
- Limited staffing under the CCU unit responsible for coordinating climate change issues in Namibia including reporting
- Lack of country specific emission factors to move to high tiers
- Time constraints from accessing the funding to implementation and submission of BURs
- Complicated templates by IAs which makes it time consuming to access funds from the GEF e.g. Theory of Change now required for Eas proposals

## Part II: Experience and lessons learned in participating in the ICA process

# ICA Process

- Namibia has undergone 2 ICA process
- The ICA helped the country to improve its National NCs & BURs
- The comments from the TTE were incorporated in the project document preparation of NC4 and BUR3
- The TTE process helped improve data archiving process
- The capacity building report raised some of capacity building needs not included in the capacity building sections of BUR2
- Some of the comments raised during the TTE were taken into consideration during the NC4 and BUR3 formulation e.g. the F gases and dating back to 1990 to have a complete time series
- Overall, the TTE met the expectations and helped in improving the BURs

## Part III: Response to questions received

- **Questions from Japan:**

- According to p.46 of the BUR, Namibia has identified and listed up the most urgent improvements for the inventory. Could you please provide further information on how the prioritization was made and how the listed points will be addressed for the preparation of the next inventory?

- **Answer:** The prioritization was based on the share in national emissions, KC and activities known to occur but not yet covered in the inventory. Some activity areas have been addressed in the BUR3 and a new approach to improve and reflect national circumstances for the LAND sector has been adopted.

- **Questions from Japan:**

- According to p.23-24 and p.38 of the BUR, in order to produce high-quality BUR and NC continuously, Namibia has decided to shift from the preparation based on ad-hoc structure to the preparation based on permanent in-house system. Could you please share the experience of this transition? Especially, we would like to hear about the activities such as the mapping of relevant institutions and the brain storming session referred in the BUR, and the challenges of this transition.

- **Answer:** Mapping of institutions was initially done on the basis of all activity areas emitting GHGs and this is continuously reviewed to improve its functioning. The private sector was also mapped and potential stakeholders invited to join the working groups. This is now a reality but there is still room for improvement.

- Apart from availability of working group members, resources, especially staffing in the climate change unit remains a key one.