Overview

1. Policy Mandate
   a) National Development Plan and the National Climate Change Response Policy
   b) M&E System Benefits

2. The Climate Change M&E System Design Approach
   a) Tiered Approach
   b) Data-sharing Networks

3. The Climate Change M&E System Overview & Implementation Plan
   a) System Outputs
   b) Implementation Plan
Policy Mandate
**Policy Mandate**

**National Development Plan**

- Align existing policy and mainstream mitigation and adaptation considerations into the activities of all government departments across local, provincial and national government.
- **Build an evidence base:** To inform planning, prioritize data-collection mechanisms, including urgently setting up mandatory monitoring, evaluation and reporting processes for all relevant stakeholders.
- **Monitor, report and verify** to understand South Africa’s progress against national goals of the envisaged economy and society.

**National Climate Change Response Policy**

- Effectively **manage the inevitable climate change impacts**
- Make a fair contribution to the global effort to stabilise greenhouse gas (GHG) concentrations
- To formulate effective responses to climate change, **South Africa needs a country-wide monitoring system** to measure climate variables at scales appropriate to the institutions that must implement climate change responses
Monitoring & Evaluation in the NCCRP

- **Mitigation:**
  - To provide detailed and high quality emissions data in a GHG Inventory
  - An M&E System to support the analysis of the impact of mitigation measures
  - Mitigation interventions will be M&E’d against the National Emissions Trajectory
  - Assess indicators defined in DEROs & Mitigation plans

- **Adaptation & Impact:**
  - Gathering information and reporting progress on the implementation of actions
  - Measure climate variables at appropriate scales for implementation

- **Climate Finance:**
  - A transitional tracking facility for climate finance mechanisms and climate responses
  - Need to track the use and impact of funds
Benefits of an M&E System

- Provide evidence base of the impact of Climate change in South Africa
- Informing response to climate change: *scope of measures & effectiveness*
- One-stop shop of climate change information in South Africa
- Learning – *for programme managers, experts, researchers, policy-makers etc.*
- Institutionalize reporting of South Africa’s reporting obligations in international Forums
- Inform SA negotiators under the UNFCCC
- Support identification of resource requirements, allocations & opportunities in climate change response
The Climate Change Monitoring & Evaluation System Design Approach
Definitions: Monitoring & Evaluation

Monitoring: Measuring, Reporting & Verification

- A continuing function;
- systematic collection of data on specified indicators, enabling stakeholders to check whether an initiative is on track to achieving set objectives;
- routine, daily assessment of on-going activities and progress

Evaluation

- Determining the worth or significance of a development activity, policy or programme;
- Time-bound; to determine relevance, efficiency, effectiveness, impact & sustainability
- periodic assessment of overall achievements;
- measuring the impact or effectiveness of an intervention in achieving set objectives

M&E System

- Data-collection system and guidelines
- Data-storage and quality control system:
- Indicators to be tracked and an impact assessment framework
M&E System Principles

- Relevant and building on existing systems to minimise burden and duplication of effort
- **Timeliness**: meeting reporting deadlines and to respond in a timely manner
- **Accuracy and completeness**: delivering good quality information
- **Transparency**: transparent and accountable to stakeholders
- **Stakeholder-guided**: design and implementation should be guided by stakeholders as far as possible
- **Influential**: producing information that is relevant, supportive and influential to policy, practice, research and international climate change negotiations
- **Consistency, comparability and standardisation** – using common or comparable approaches to improve comparability of results
The M&E System Objectives

To track the transition towards a lower-carbon & climate-resilient South Africa

Lower-carbon
- What are the GHG emission trends?
- What measures are being undertaken?
- Which measures are working well?

Climate-resilience
- What are the impacts of climate change?
- What measures are being undertaken well?
- How is South Africa’s vulnerability and adaptive capacity changing?

Cross-Cutting

Climate finance:
What are the finance flows? How effectively is the finance contributing to climate change response?

Communication and learning:
How are the outputs of the M&E system communicated and fed back to inform future decisions?
M&E System Design Approach

Data & Information: Required for Estimating the Indicators

Indicators: Informed by the Objectives and the Output Needs Assessment

M&E System Objectives & Output Needs Assessment

The System We Want

Work Backwards

Which in turn informs this step

To inform this step

Start here

Present

Future
M&E System: Tiered Approach

Tier 1 – Hi-Level indicators. Indicators that track the extent to which the country is becoming lower-carbon.

Tier 2 – Sectorial & sub-sectorial-level indicators. This tier links the bottom-up and top-down indicators.

Tier 3 – Response measure-level indicators. Indicators of the impact of individual response measures.

“The collective outcome all mitigation actions will be measured against the National GHG Emissions Trajectory”

NCCRP
<table>
<thead>
<tr>
<th>Indicator Group</th>
<th>Comments</th>
<th>Indicator description</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable carbon levels</td>
<td>• Tracks the country’s performance against the national emissions trajectory range</td>
<td>• Annual carbon emission levels &amp; Annual carbon removals</td>
<td>• CO2-eq</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GHG intensity of the economy</td>
<td>• CO2-eq / GDP</td>
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</tbody>
</table>
| Lower-carbon productivity     | • To assess decoupling of economic activity with carbon emissions  
                                | • Reflecting overall efficiency of GHG resource utilisation in an economy                                                               | • Energy intensity of the economy                                                    | • TPES / GDP                     |
|                               |                                                                                                                                              | • Per capita GHG emissions                                                             | • CO2-eq / population             |
| Lower-carbon consumption      | • A proxy indicator of the nation’s consumption pattern                                                                                   | • Proportion of renewables or zero-carbon energy to total primary energy               | • Renewable or zero-carbon energy / TPES |
| Lower-carbon resourcing       | • The development of “clean” energy is correlated to both resource endowment and technology development in a country                        | • GHG intensity of the energy system                                                  | • CO2-eq / TPES                  |
|                               |                                                                                                                                              | • Growth in green jobs                                                                | • Number & type of green jobs      |
| Lower-carbon sector growth    | • Growth of key sectors                                                                                                                   | • Annual carbon emission levels & Annual carbon removals                                | • CO2-eq                         |
## M&E System: Tier 2 Indicators – (Sub) Sectoral/Company

<table>
<thead>
<tr>
<th>Indicator Group</th>
<th>Comments</th>
<th>Indicator description</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Sub)Sector or company-level carbon profile</td>
<td>• Annual emissions measured against the respective GHG emissions baseline trajectory</td>
<td>• Annual GHG inventory</td>
<td>CO2-eq</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Projected vs actual GHG emissions or removals</td>
<td>CO2-eq</td>
</tr>
<tr>
<td>Carbon intensity of the (sub) sector or company</td>
<td>• Linkages between economic activity with GHG emissions</td>
<td>• GHG per sectorial or sub-sectorial economic activity</td>
<td>CO2-eq / (sub-) sector-GDP</td>
</tr>
<tr>
<td></td>
<td>• GDP and units of service or product delivered used as indicators of economic activity</td>
<td>• GHG intensity of service or product delivered</td>
<td>CO2-eq / unit of product or service</td>
</tr>
<tr>
<td>Sector, sub-sector or company-level energy resourcing</td>
<td>• Energy utilisation and intensity of the company, including the use of renewable or zero-carbon energy sources</td>
<td>• Annual energy use</td>
<td>Mega Joules (MJ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Proportion of renewables or zero-carbon energy to total energy use</td>
<td>% of Renewable or zero energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Energy intensity</td>
<td>MJ / unit of product or service</td>
</tr>
<tr>
<td>Lower-carbon sector or sub-sector growth</td>
<td>• Demonstrates growth of key sectors and sub-sectors</td>
<td>• Growth in green jobs</td>
<td>Number and type of green jobs</td>
</tr>
</tbody>
</table>
## M&E System: Tier 3 Indicators – Response Measure

<table>
<thead>
<tr>
<th>Indicator Group</th>
<th>Comments</th>
<th>Indicator description</th>
<th>Indicator</th>
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</thead>
</table>
| **Implementation Indicators** | • Phases or stages of implementation of the response measures.  
• To be defined together with the owner/implementer of the response measure | • Achieved progress in implementation | • E.g. No of stages or phases or units, etc. |
| **Impact indicators** | • climate change mitigation impact of the response measure  
• Indicators of impact(s) on other relevant sustainable development priorities, including job-creation, also known as co-benefit or co-cost indicators | • Reduced GHG emissions/sequestrated carbon (relative to baseline)  
• Number and type of jobs created directly  
• Other social, environmental and economic co-benefit indicators | • CO2-eq  
• jobs by type  
• (As appropriately defined) |
| **Effectiveness indicators** | • Key indicators of the effectiveness of the response measures in responding to climate change | • Cost-effectiveness  
• Job-creation effectiveness | • CO2-eq per Rand  
• No of jobs per CO2-eq Or per Rand |
The M&E System

Monitoring = MRV

- Data & info provision
  - Data and information coordination network(s)
  - Standardisation [MRV guidelines]
- Data storage & processing, Quality control
  - The Web-based M&E System Platform & Database (QA / QC)

Evaluation = impact Analyses

- Data & information analyses
  - Climate impact and Adaptation response analyses
  - Climate Finance analysis
  - Mitigation response analyses

Deliverables

- Annual publication of Climate Change monitoring process
- UNFCCC Reporting Obligations
- OTHERS

Feedback & learning
M&E System Outputs

• The primary output = annual report on M&E of climate change information in South Africa.

• This report will contain all the information required from this system by the National Climate Change Policy, including:
  − Observed and projected climate change impacts; climate risks and vulnerabilities
  − Enhancement of climate monitoring networks
  − Scope, geographical coverage, progress of implementation and effectiveness of response measures & their contribution to sustainable development areas
  − Financial resources needed or existing to support response measures, including landscape, impact, effectiveness, gaps and available funding opportunities
  − Lessons learnt; knowledge gaps and areas of improvement
Tracking transition towards a lower-carbon & climate resilient South Africa

**M&E System Objectives**

- LOWER CARBON
- CLIMATE RESILIENCE
- CLIMATE FINANCE
- COMMUNICATION
- LEARNING

**What will the System Monitor?**

- How?

**What are the M&E System Outputs?**

- Key Lessons learnt
- Key Trends
- Knowledge gained
- Next steps

**Other Basic Elements**

- Definitions
- Guiding Principles
- M&E vs. MRV

**THE M&E SYSTEM**

- Information Networks
- MRV Guidelines

**Central Monitoring Tool**

- Web-based Platform

**Support Base for the functioning of the M&E System**

- Institutional Arrangements
  - Expert advice
  - Content & Knowledge Management
- Legal & Regulatory Framework
  - Ensuring Regular & Proper reporting
- System Review
  - Ensuring System Relevance
- Verification
  - Ensuring Credibility of Information
- Long-term Sustainability
  - Ingredients to sustain System Functionality
Phased Implementation

Phase 1 (to end 2016)
- Setting up & piloting of the web-based platform
- Setting up of legal & regulatory framework
- Setting up governance structure(s)
- Refining adaptation M&E indicators & networks
- Developing MRV guidelines
- Simple data-sharing process for Nat. Comm
- Produce 1st annual monitoring report

Phase 2 (2017-18)
- Web-based platform implementation & training
- Adoption of standardized MRV methods
- Testing and refining of adaptation indicators
- Learning and documentation of lessons
- Improvement of annual reports

Phase 3 (2019-20)
- System improvement based on lessons learnt
- Fully operational system structure
- Accuracy, completeness & consistency pursued
- System outcomes fully integrated into decision-making processes
E-mail:

• tletete@environment.gov.za
• Mthangavhuelelo-lucas@environment.gov.za
• tmakholela@environment.gov.za