

South Africa's Draft Climate change Response M&E System

Climate Change Monitoring & Evaluation: Reitumetse Molotsoane
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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



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Policy Mandate

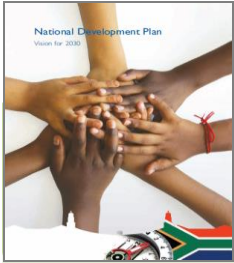


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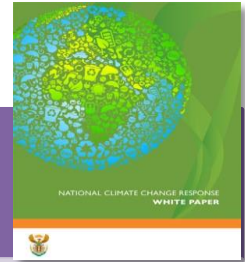


Policy Mandate



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



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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



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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



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The Climate Change Monitoring & Evaluation System Design Approach



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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



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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



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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?

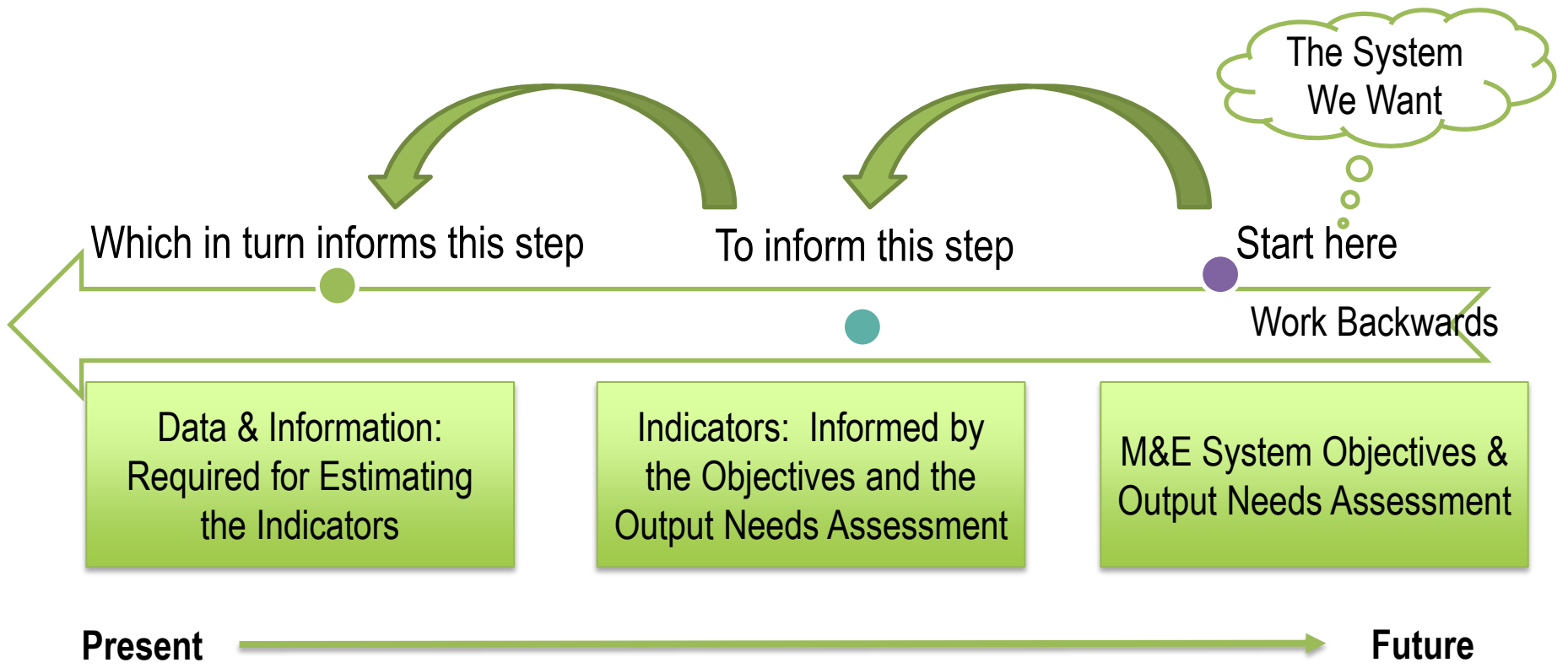


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M&E System Design Approach



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M&E System: Tiered Approach

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

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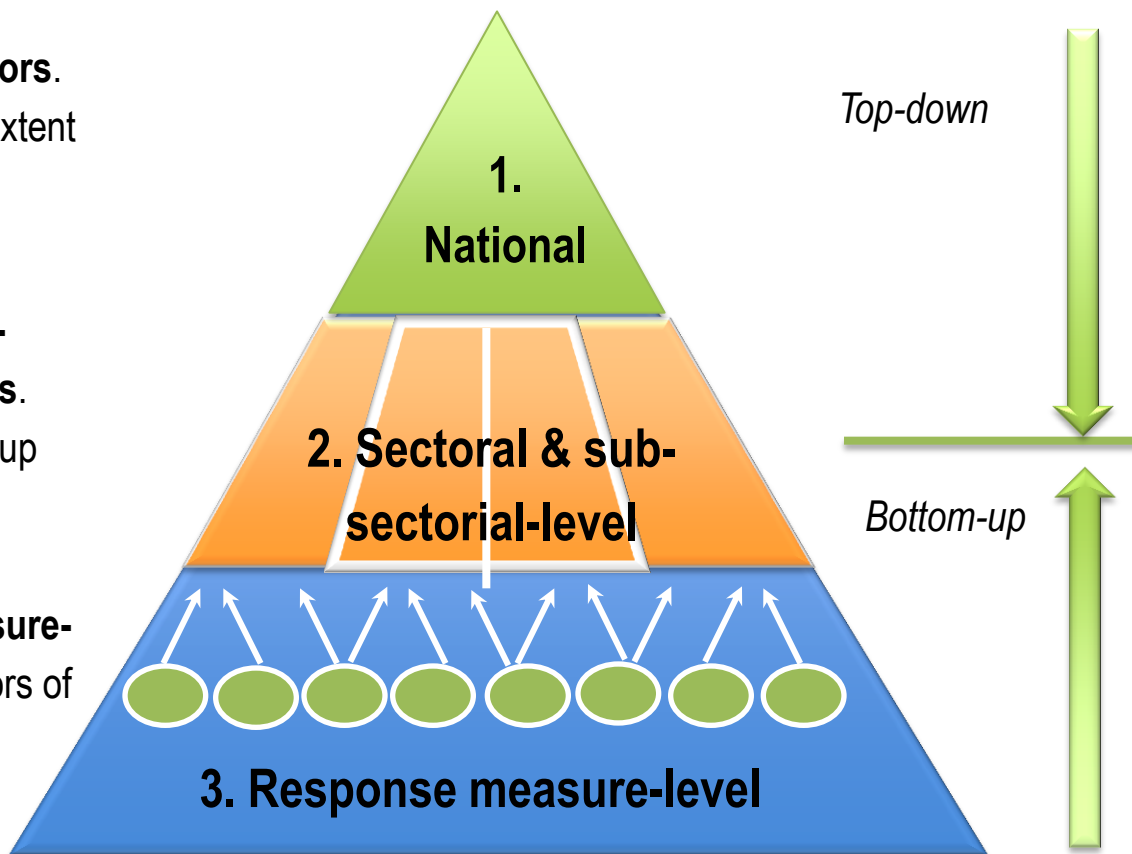
Tier 1 – Hi-Level indicators.

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.



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M&E System: Tier 1 Indicators - National

Indicator Group	Comments	Indicator description	Indicator
Sustainable carbon levels	<ul style="list-style-type: none"> Tracks the country's performance against the national emissions trajectory range 	<ul style="list-style-type: none"> Annual carbon emission levels & Annual carbon removals 	<ul style="list-style-type: none"> CO2-eq
		<ul style="list-style-type: none"> GHG intensity of the economy 	<ul style="list-style-type: none"> CO2-eq / GDP
Lower-carbon productivity	<ul style="list-style-type: none"> To assess decoupling of economic activity with carbon emissions Reflecting overall efficiency of GHG resource utilisation in an economy 	<ul style="list-style-type: none"> Energy intensity of the economy 	<ul style="list-style-type: none"> TPES / GDP
		<ul style="list-style-type: none"> Per capita GHG emissions 	<ul style="list-style-type: none"> CO2-eq / population
Lower-carbon consumption	<ul style="list-style-type: none"> A proxy indicator of the nation's consumption pattern 	<ul style="list-style-type: none"> Proportion of renewables or zero-carbon energy to total primary energy 	<ul style="list-style-type: none"> Renewable or zero-carbon energy / TPES
Lower-carbon resourcing	<ul style="list-style-type: none"> The development of "clean" energy is correlated to both resource endowment and technology development in a country 	<ul style="list-style-type: none"> GHG intensity of the energy system 	<ul style="list-style-type: none"> CO2-eq / TPES
		<ul style="list-style-type: none"> Growth in green jobs 	<ul style="list-style-type: none"> Number & type of green jobs
Lower-carbon sector growth	<ul style="list-style-type: none"> Growth of key sectors 	<ul style="list-style-type: none"> Annual carbon emission levels & Annual carbon removals 	<ul style="list-style-type: none"> CO2-eq



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M&E System: Tier 2 Indicators – (Sub) Sectoral/Company

Indicator Group	Comments	Indicator description	Indicator
(Sub)Sector or company-level carbon profile	<ul style="list-style-type: none"> Annual emissions measured against the respective GHG emissions baseline trajectory 	<ul style="list-style-type: none"> Annual GHG inventory 	<ul style="list-style-type: none"> CO₂-eq
		<ul style="list-style-type: none"> Projected vs actual GHG emissions or removals 	<ul style="list-style-type: none"> CO₂-eq
Carbon intensity of the (sub) sector or company	<ul style="list-style-type: none"> Linkages between economic activity with GHG emissions GDP and units of service or product delivered used as indicators of economic activity 	<ul style="list-style-type: none"> GHG per sectorial or sub-sectorial economic activity 	<ul style="list-style-type: none"> CO₂-eq / (sub-) sector-GDP
		<ul style="list-style-type: none"> GHG intensity of service or product delivered 	<ul style="list-style-type: none"> CO₂-eq / unit of product or service
Sector, sub-sector or company-level energy resourcing	<ul style="list-style-type: none"> Energy utilisation and intensity of the company, including the use of renewable or zero-carbon energy sources 	<ul style="list-style-type: none"> Annual energy use 	<ul style="list-style-type: none"> Mega Joules (MJ)
		<ul style="list-style-type: none"> Proportion of renewables or zero-carbon energy to total energy use 	<ul style="list-style-type: none"> % of Renewable or zero energy
		<ul style="list-style-type: none"> Energy intensity 	<ul style="list-style-type: none"> MJ / unit of product or service
Lower-carbon sector or sub-sector growth	<ul style="list-style-type: none"> Demonstrates growth of key sectors and sub-sectors 	<ul style="list-style-type: none"> Growth in green jobs 	<ul style="list-style-type: none"> Number and type of green jobs



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M&E System: Tier 3 Indicators – Response Measure

Indicator Group	Comments	Indicator description	Indicator
Implementation Indicators	<ul style="list-style-type: none"> Phases or stages of implementation of the response measures. To be defined together with the owner/implementer of the response measure 	<ul style="list-style-type: none"> Achieved progress in implementation 	<ul style="list-style-type: none"> E.g. No of stages or phases or units, etc.
Impact indicators	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Reduced GHG emissions/ sequestered carbon (relative to baseline) 	<ul style="list-style-type: none"> CO2-eq
		<ul style="list-style-type: none"> Number and type of jobs created directly 	<ul style="list-style-type: none"> jobs by type
		<ul style="list-style-type: none"> Other social, environmental and economic co-benefit indicators 	<ul style="list-style-type: none"> (As appropriately defined)
Effectiveness indicators	<ul style="list-style-type: none"> Key indicators of the effectiveness of the response measures in responding to climate change 	<ul style="list-style-type: none"> Cost-effectiveness 	<ul style="list-style-type: none"> CO2-eq per Rand
		<ul style="list-style-type: none"> Job-creation effectiveness 	<ul style="list-style-type: none"> No of jobs per CO2-eq Or per Rand

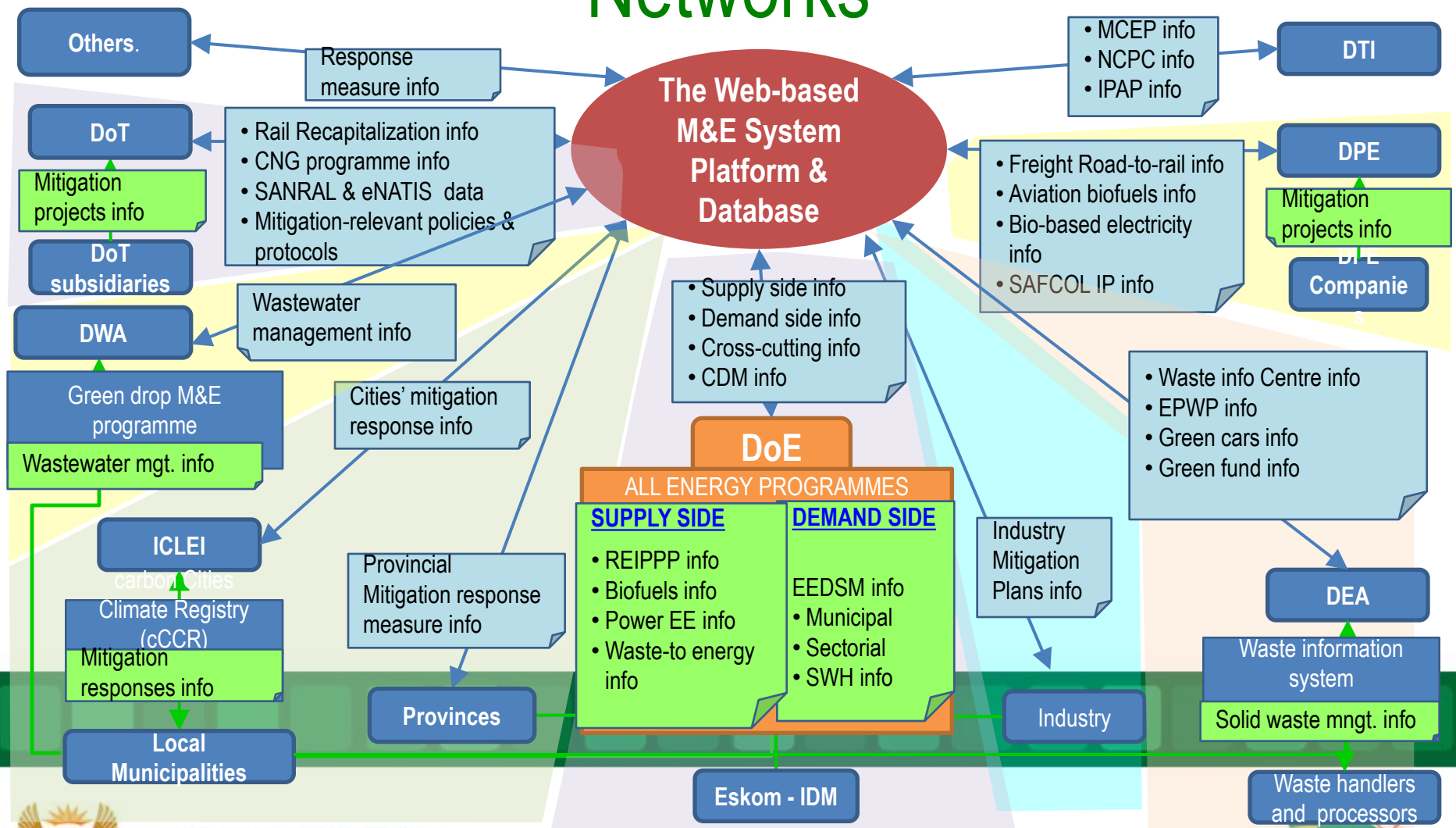


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Data-Sharing: Existing & Proposed Networks



The Climate Change Monitoring & Evaluation System Overview & Implementation Plan

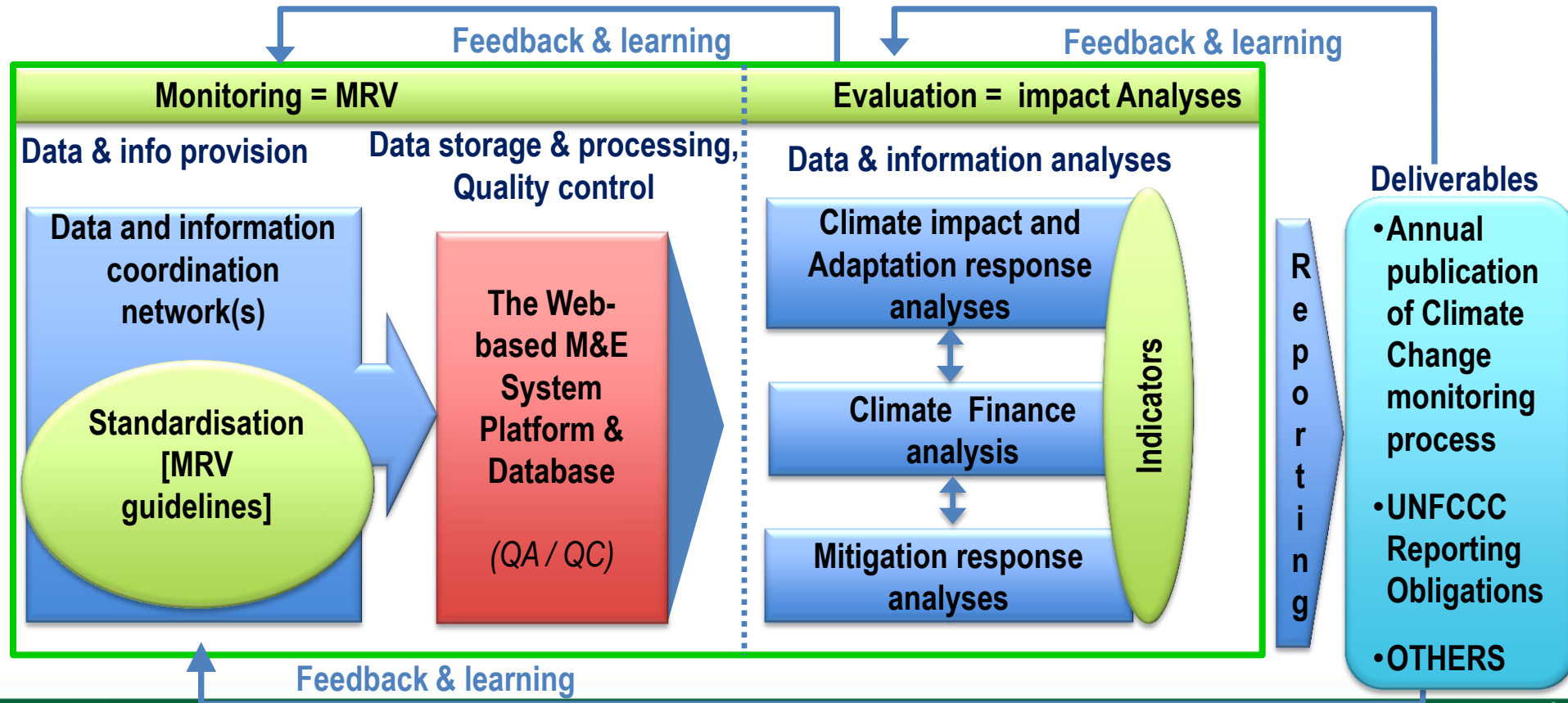


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The M&E System



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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



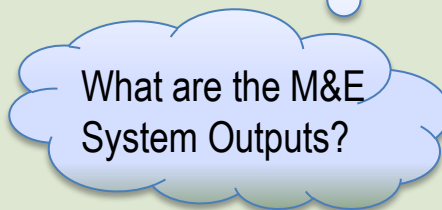
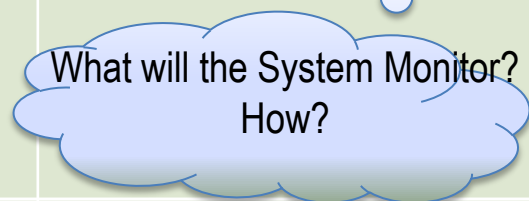
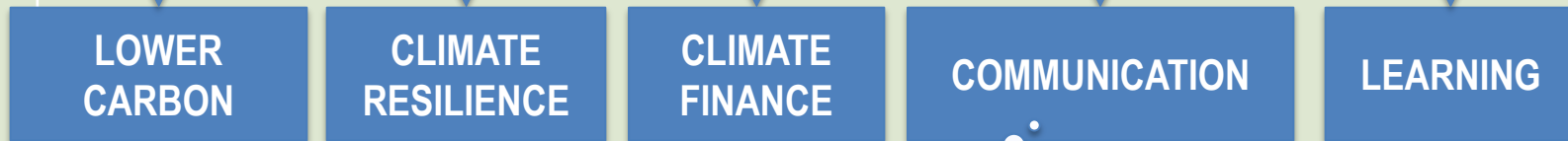
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Tracking transition towards a lower-carbon & climate resilient South Africa

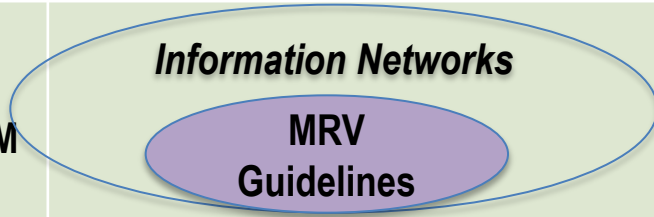
M&E System Objectives



Other Basic Elements



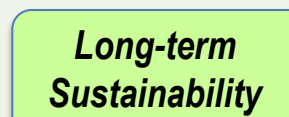
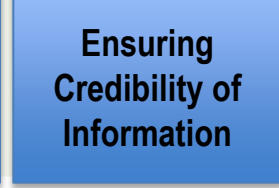
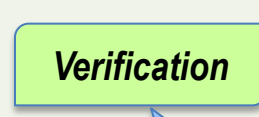
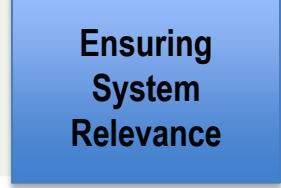
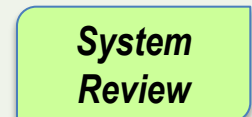
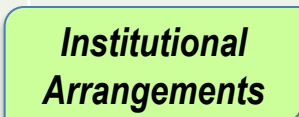
THE M&E SYSTEM



Central Monitoring Tool



Support Base for the functioning of the M&E System



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



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