



REPUBLIC OF GHANA

**MINISTRY OF ENVIRONMENT, SCIENCE,  
TECHNOLOGY AND INNOVATION**

**SECTOR MONITORING AND EVALUATION PLAN  
FOR SECTOR MEDIUM TERM DEVELOPMENT PLAN UNDER GSGDA II  
(2014 – 2017)**

**FEBRUARY, 2015**

## TABLE OF CONTENTS

TABLE OF CONTENTS .....	ii	
LIST OF ACRONYMS .....	iii	
<b>CHAPTER 1: INTRODUCTION</b>		
1.1 Background .....	1	
1.2 Mission, Vision and Functions of MESTI .....	1	
1.3 Goal and Objectives of the SMTDP .....	3	
1.4 Purpose of the M&E Plan.....	3	
1.5 Process of Developing the M&E Plan .....	4	
<b>CHAPTER 2: M&amp;E ACTIVITIES</b>		
2.1 Stakeholders Analysis .....	6	
2.2 M&E Capacities and Conditions .....	11	
2.3 Monitoring Indicators .....	12	
2.4 Monitoring Matrix .....	13	
2.5 M&E Work Plan and Calendar .....	35	
2.6 M&E Budget .....	37	
2.7 How Data will be Collected and Collated .....	54	
2.8 How Data will be Analysed and Used .....	55	
2.9 How and when to Report on Findings .....	55	
2.10 Dissemination and Communication Strategies .....	56	
2.11 Which Evaluations will be Done and How .....	57	
2.12 How Participatory M&E will be Done .....	58	
<b>CHAPTER 3: OTHER ISSUES OF RELEVANCE TO M&amp;E</b>		
3.1 Risks and Risk-management .....	60	
3.2 Assumptions.....	60	
<b>CHAPTER 4: CONCLUSION .....</b>		<b>62</b>
<b>ANNEX</b>		
GLOSSARY OF M&E CONCEPTS .....	63	

## LIST OF ACRONYMS

AAP	Annual Action Plan
APR	Annual Performance Report
APR	Annual Progress Report
ARI	Animal Research Institute
BoQ	Bill of Quantity
BNARI	Biotechnology and Nuclear Agriculture Research Institute
BRRl	Building and Road Research Institute
CBO	Community Based Organisation
COTVET	Council for Technical and Vocational Education and Training
CRI	Crops Research Institute
CSIR	Council for Scientific and Industrial Research
DA	District Assembly
DMTDP	District Medium Term Development Plan
DST	Department of Science and Technology
ECOWAS	Economic Community Of West African States
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EU	European Union
F&A	Finance and Administration
FORIG	Forestry Research Institute of Ghana
FRI	Food Research Institute

GAEC	Ghana Atomic Energy Commission
GCC	Guinea Current Commission
GCLME	Guinea Current Large Marine Ecosystem
GE	Green Economy
GEMP	Ghana Environment Management Programme
GETFund	Ghana Education Trust Fund
GH-SA	Ghana-South Africa
GIF	Gamma Irradiation Facility
GIP	Ghana Institute of Planners
GIS	Geographic Information System
GMO	Genetically Modified Organism
GPS	Global Positioning System
GSC	Ghana Science Congress
GSSTI	Ghana Space Science and Technology Institute
HR	Human Resource
IAEA	International Atomic Energy Agency
ICT	Information Communication Technology
ICU	Information Communication Unit
IGF	Internally Generated Funds
IIR	Institute of Industrial Research
IPM	Integrated Pest Management
INSTI	Institute for Scientific and Technological Information

LAN	Local Area Networks
LI	Legislative Instrument
M&E	Monitoring and Evaluation
MASTESS	Mathematics, Science and Technology Scholarship Scheme
MDA	Ministries, Departments and Agencies
MEST	Ministry of Environment, Science and Technology
MESTI	Ministry of Environment, Science, Technology and Innovation
MLGRD	Ministry of Local Government And Rural Development
MLNR	Ministry of Lands and Natural Resources
MMDA	Metropolitan, Municipal and District Assembly
MoE	Ministry of Education
MoF	Ministry of Finance
MoFA	Ministry of Food and Agriculture
MoH	Ministry of Health
MoTI	Ministry of Trade and Industry
MoU	Memorandum of Understanding
MTDP	Medium Term Development Plan
NADMO	National Disaster Management Organisation
NCP	National Contact Points
NDPC	National Development Planning Commission
NDT	Non Destructive Techniques
NEP	National Environment Policy

NMTDPF	National Medium-Term Development Policy Framework
NNRI	National Nuclear Research Institute
OHCS	Office of the Head of Civil Service
OPRI	Oil Palm Research Institute
PGEC	Post Graduate Education Course
PoA	Programme of Action
PGRI	Plant Genetic Resources Research Institute
PPME	Policy Planning, Monitoring and Evaluation
PPP	Public Private Partnership
PSC	Public Services Commission
RCC	Regional Coordinating Council
R&D	Research and Development
RAMSRI	Radiological and Medical Science Research Institute
RPI	Radiation Protection Institute
RSIM	Research, Statistics and Information Management
SA	South Africa
SADA	Savannah Accelerated Development Authority
SARI	Savannah Agricultural Research Institute
S&T	Science and Technology
SC	Steering Committee
SDF	Skills Development Fund
SEA	Strategic Environmental Assessment

SIT	Sterile Insect Technique
SKA	Square Kilometre Array
SLWMP	Sustainable Land and Water Management Project
SMTDP	Sector Medium Term Development Plan
SNAS	School of Nuclear and Allied Sciences
SONA	State Of the Nation Address
SRI	Soil Research Institute
STEPRI	Science and Technology Policy Research Institute
STI	Science, Technology and Innovation
STIDEP	Science, Technology and Innovation Development Programme
STIP	Science, Technology and Innovation Policy
SWOT	Strengths, Weaknesses, Opportunities and Threats
TCPD	Town and Country Planning Department
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VOIP	Voice Over Internet Protocols
WASCAL	West Africa Science Centre for Climate Change
WAN	Wide Area Networks
WG	Working Group
WRI	Water Research Institute

## **CHAPTER 1: INTRODUCTION**

### **1.1 Background**

The Ministry of Environment, Science, Technology and Innovation (MESTI) forms part of the Central Management Agencies of government machinery. It was created in 1993 as the Ministry of Environment and Science and abolished in 2006 (the Environment portfolio was added to the Local Government Ministry; and Science, added to the Education Ministry). The Ministry was reconstituted in January 2009, and named Ministry of Environment, Science and Technology (MEST); under Executive Instrument (E.I.) 7 Civil Service (Ministries) Instrument, 2009. However in 2013, the Ministry was renamed Ministry of Environment, Science, Technology and Innovation (MESTI), under Executive Instrument (E.I.) 1 Civil Service (Ministries) Instrument, 2013. This chapter reviews the Ministry as an institution, focusing on the background of the Sector with respect to its Mission, Vision, Goal and its core functions.

### **1.2 Mission, Vision and Functions of MESTI**

#### *1.2.1 Mission*

The Ministry of Environment, Science, Technology and Innovation (MESTI) exists to promote sustainable development by deepening and strengthening market driven Research and Development (R&D) for sound Environmental Governance, Science, Technology and Innovation through intensive awareness creation, collaboration and partnership.

#### *1.2.2 Vision*

The Ministry of Environment, Science, Technology and Innovation (MESTI) envisages to attain sustainable development through the utilization of Science, Technology and Innovation for wealth creation and sound environmental governance in a modern and competitive economy.



### 1.2.3 Functions

The core functions of the Ministry are to:

1. Provide leadership and guidance for Environment, Science, Technology and Innovation within the broad sector of the economy through sound policy formulation and implementation;
2. Ensure the establishment of the regulatory framework and setting of standards to govern the activities of science and technology and the management of the environment for sustainable development;
3. Promote activities needed to underpin the standards and policies required for planning and implementation of sound scientific and technological development activities;
4. Ensure the coordination, supervision, monitoring and evaluation of activities of Environment, Science, Technology and Innovation while fulfilling national benefits-sharing commitments;
5. Set out the parameters required for programmes on environment, science, technology and human settlement in consultation with the National Development Planning Commission (NDPC) in guiding the Districts Assemblies as the planning authorities at the local level;
6. Analyse and coordinate all planned programmes as well as budgets in the environment, science, technology and innovation sector of the economy for purposes of achieving a single integrated management system;
7. Initiate, simulate and coordinate research including the continuous development and review of policies, laws, rules and regulations in the environment, science, technology and innovation sector of the economy; and
8. Ensure effective environmental management and governance, in line with the functions of the Act 490, with the EPA as the main implementing agency and the MESTI playing an oversight, coordination and facilitating role.

### **1.3 Goal and Objectives of the SMTDP**

#### *1.3.1 Sector Goal*

The Ministry of Environment, Science, Technology and Innovation (MESTI) seeks to ensure accelerated socio-economic development of the nation through the formulation of sound policies and a regulatory framework to promote the use of appropriate environmentally friendly, scientific, and technological practices.

#### *1.3.2 Sector Objectives*

The adopted policy objectives of the Ministry are to

- Strengthen institutional and regulatory frameworks for sustainable natural resource management;
- Reduce loss of biodiversity;
- Enhance capacity to adapt to climate change impacts;
- Promote green economy;
- Promote the application of Science, Technology and Innovation in all sectors of the economy;
- Strengthen the institutional framework to promote the development of research and its application;
- Strengthen policy formulation, development planning, and M&E processes for equitable and balanced spatial and socio- economic development; and
- Promote a sustainable, spatially integrated and orderly development of human settlements.

### **1.4 Purpose of the M&E Plan**

MESTI in partnership with its Development Partners dedicates considerable funds to implement its development interventions as spelt out in the Sector Medium Term Development Plan (2014-2017). The Sector Medium Term Plan was prepared in accordance with the Ghana Shared Growth and Development Agenda -2014-2017 (GSGDA II).

Following from this, the Sector M&E Plan has been developed to guide and track the implementation of planned activities contained in the Sector Medium Term Development Plan. The main aim of the Sector M&E plan is to monitor the implementation of the SMTDP and also ensure that set goals and objectives are achieved.

The M&E plan will eventually facilitate the achievement of the following;

- Assess whether SMTDP developmental targets are being met.
- Identify achievements, constraints and failures so that improvements can be made to the SMTDP and project designs to achieve better impact.
- Collate information for effective coordination of environmental, science, technology and innovation interventions.
- Provide government, development partners and the general public with information on lessons learned.
- Reinforce ownership of the SMTDP and build M&E capacity within the Sector.
- Promote joint monitoring and evaluation of Sector projects and programmes and provide data and information for policy formulation and design of future projects and programmes; and
- Provide information for evidence based decision making.

### **1.5 Process of Developing the M&E Plan**

The following steps were followed in the preparation of the Sector Monitoring and Evaluation Plan:

- The Ministry obtained the NDPC Guidelines for the preparation of the Sector M&E Plan
- Going by the guidelines, the Ministry constituted the Sector M&E Plan Preparation team
- The Team then outlined a strategy/roadmap for plan preparation indicating the steps in the NDPC guidelines, assigning responsibilities to team members, stating the source(s) of information and the estimated time required for each step

- The team met with Directorates/Department/Agencies to discuss the Plan preparation.
- The team drew up templates to obtain the required inputs from the Directorates/Department/Agencies
- The templates were distributed to the Directorates/Department/Agencies with deadlines for submission of inputs
- The team came up with an outline of Sector M&E Plan following NDPC guidelines
- The team planned a retreat, with NDPC in attendance to meet with Directorates/Department/Agencies to incorporate latter's inputs to the Sector M&E Plan
- A 1<sup>st</sup> draft of the Sector M&E Plan was prepared
- The draft Sector M&E Plan was discussed with stakeholders (Directorates/Department/Agencies)
- A more refined draft was finally presented to Directorates/Department/Agencies for validation
- Presentation was made to management for their concurrence
- A final draft Sector M&E Plan was prepared and submitted to NDPC.

## CHAPTER 2: M&E ACTIVITIES

### 2.1 Stakeholders Analysis

Organisations with interest in the outcome of the SMTDP objectives and its implementation were identified as stakeholders of the sector. Amongst them are MDAs, NDPC, MMDAs, Development Partners, NGOs, CSOs, etc. Some were duly consulted in the preparation of the Sector M&E Plan, whereas the others will be involved during the implementation phase of the plan.

Table 2.1 below presents the comprehensive stakeholder analysis undertaken by the sector.

**Table 2.1: Stakeholder Analysis**

Stakeholders	Classification	Needs/Interests/ Responsibility	Involvement in M&E Activities
NDPC	Primary	<ul style="list-style-type: none"> <li>• Policy direction</li> <li>• Guidelines</li> <li>• Capacity building</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Plan preparation</li> <li>• Evaluations</li> <li>• M&amp;E results dissemination etc.</li> </ul>
Ministry of Environment, Science, Technology and Innovation	Primary	<ul style="list-style-type: none"> <li>• Policy direction</li> <li>• Project planning, programming and implementation</li> <li>• Feedback on results etc.</li> <li>• Coordination of sector M&amp;E activities</li> <li>• Project reporting</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Plan preparation and implementation</li> <li>• Project monitoring</li> <li>• Evaluations</li> <li>• Participatory Monitoring and Evaluation</li> <li>• M&amp;E results dissemination etc.</li> </ul>
Ministry of Finance	Primary	<ul style="list-style-type: none"> <li>• Resource mobilisation and allocation</li> <li>• Supervision of resource utilisation</li> <li>• Programme/ Project implementation</li> <li>• Feedback on results etc.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops and meetings</li> <li>• Project inspection</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Agencies/ Department	Primary	<ul style="list-style-type: none"> <li>• Programme/Project implementation</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Plan preparation and implementation</li> </ul>

Stakeholders	Classification	Needs/Interests/ Responsibility	Involvement in M&E Activities
		<ul style="list-style-type: none"> <li>• Resource utilisation</li> <li>• Feedback on results</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluations</li> <li>• Participatory M&amp;E</li> <li>• Data collection</li> <li>• Project inspection and supervision</li> <li>• Workshops and meetings</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Office of the President	Primary	<ul style="list-style-type: none"> <li>• Policy Direction</li> <li>• Ensure accountability and transparency</li> <li>• Quality service delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Random monitoring</li> <li>• Receive M&amp;E reports</li> </ul>
Citizenry	Primary	<ul style="list-style-type: none"> <li>• Quality service delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Receive feedback on impact of activities</li> </ul>
Traditional Authorities	Primary	<ul style="list-style-type: none"> <li>• Advisory services</li> <li>• Transparency and accountability, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops and meetings</li> <li>• Project inspection</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Other MDAs	Secondary	<ul style="list-style-type: none"> <li>• Collaboration at the policy and implementation levels</li> <li>• Advisory services, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection</li> <li>• M&amp;E workshops and meetings</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Development Partners	Secondary	<ul style="list-style-type: none"> <li>• Transparency and accountability</li> <li>• Financial and material resources</li> <li>• Technical assistance etc.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops and meetings</li> <li>• Project inspection and supervision</li> <li>• Data collection</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Consultants	Secondary	<ul style="list-style-type: none"> <li>• Technical assistance</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Plan preparation</li> <li>• Evaluations</li> <li>• Participatory M&amp;E</li> </ul>
Civil Society	Secondary	<ul style="list-style-type: none"> <li>• Advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops and</li> </ul>

<b>Stakeholders</b>	<b>Classification</b>	<b>Needs/Interests/ Responsibility</b>	<b>Involvement in M&amp;E Activities</b>
Organisations (CSOs, CBOs, NGOs, FBOs etc.)		<ul style="list-style-type: none"> <li>• Transparency and accountability etc.</li> </ul>	<ul style="list-style-type: none"> <li>• meetings</li> <li>• Project inspection and supervision</li> <li>• Participatory M&amp;E</li> <li>• Data collection</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Media	Secondary	<ul style="list-style-type: none"> <li>• Transparency and accountability etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination and communication of M&amp;E results</li> </ul>
Office of the Head of Civil Service	Primary	<ul style="list-style-type: none"> <li>• Programme Implementation</li> <li>• Feedback on results etc.</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops and meetings</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Public Services Commission	Primary	<ul style="list-style-type: none"> <li>• Programme Implementation</li> <li>• Feedback on results</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops</li> <li>• M&amp;E results reporting and dissemination</li> </ul>
Management Services Department	Primary	<ul style="list-style-type: none"> <li>• Programme Implementation</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E workshops</li> </ul>
Metropolitan, Municipal and District Assemblies (MMDAs)	Primary	<ul style="list-style-type: none"> <li>• Programme/Project implementation</li> <li>• Resource utilisation</li> <li>• Feedback on results</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;E Plan preparation and implementation</li> <li>• Evaluations</li> <li>• Participatory M&amp;E</li> <li>• Data collection</li> <li>• Project inspection and supervision</li> <li>• Workshops and meetings</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>
Infrastructure & Utility Agencies	Secondary	<ul style="list-style-type: none"> <li>• Collaboration at the level of land use planning and implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection</li> <li>• M&amp;E results reporting and dissemination etc.</li> </ul>

Stakeholders	Classification	Needs/Interests/ Responsibility	Involvement in M&E Activities
		<ul style="list-style-type: none"> <li>• Advisory services, etc.</li> </ul>	

## 2.2 M&E Capacities and Conditions

In preparing the Sector M&E Plan, it is important to assess the capacity of the sector to develop and implement the M&E plan. This is aimed at determining the requisite financial, human and material resources available for M&E. The rationale is to ensure that the appropriate incentives, material and human resources are in place for the effective implementation, monitoring and evaluation of the SMTDP.

### 2.2.1 Analysis of M&E Capacities and Conditions

For the purposes of this Plan, the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was used to examine the Internal and External environment of the Ministry with the intention of assessing the capacity needs and gaps and the strategies to address the challenges to rolling out the M&E Plan. Below is the Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the Sector.

### 2.2.2 Strengths

A wide array of favourable internal conditions exist which could be drawn upon for Monitoring and Evaluation. Some of these include:

- Human capital
- Existence of a functional PPMED
- The availability of a MESTI SMTDP
- Availability of some logistics for monitoring
- Existence of an M&E software

### 2.2.3 Weaknesses

In spite of the afore-mentioned strengths, there are some inherent weaknesses that might hamper the smooth and successful implementation of the activities outlined in the Sector M&E Plan. The following are some of the weaknesses identified:



- Inadequate skills for M&E
- Inadequate logistical/budgetary support (i.e. vehicles for monitoring, scanners, photocopiers, LCD projectors, digital cameras, etc.)
- Inadequate skills in data generation and management i.e. Databases (especially Microsoft Access), Statistical Package for the Social Sciences (SPSS), other Microsoft Office Software (Excel, Outlook, Project, Publisher), CAD systems (Autodesk AutoCAD, LandXplorer)
- A weak M&E Unit
- Poor collaboration among stakeholders in M&E
- Limited office space
- Poor records management
- Inadequate baseline data

#### **2.2.4 Opportunities**

Opportunities are those conditions that exist outside of the Ministry which it could use to further achieve its objectives. Some of these opportunities are listed below:

- Strategic Position of MESTI
- Demand for Mid-Year/Annual Progress Report
- Technical support from NDPC
- NDPC M&E Guidelines and GSGDA II (2014 – 2017) Policy Framework
- Favourable political environment
- The existence of an M&E Unit within the Presidency
- The use of Sector M&E Plan as a trigger by Development Partners under the MDBS

#### **2.2.5 Threats**

These are external factors that might affect the Ministry's quest to achieve its objectives outlined in the Plan of which it has little or no influence. Some of these threats are listed below:

- Budgetary constraints to implement the Sector M&E Plan

- Inability to directly recruit the requisite personnel to augment the staff of the Ministry
- Overdependence on external financial support
- High labour turn over

**Table 2.2: M&E Capacities and Conditions**

<b>1. HUMAN RESOURCES</b>	<b>CURRENT SITUATION</b>	<b>DESIRED SITUATION</b>	<b>RECOMMENDATIONS</b>
<ul style="list-style-type: none"> <li>▪ Skills knowledge/Qualification of personnel</li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualifications available are basic but not tailored to M&amp;E</li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualified M&amp;E personnel with requisite skills</li> </ul>	<ul style="list-style-type: none"> <li>▪ Training on M&amp;E and Team consensus building techniques will be required.</li> <li>▪ Training in Planning, M&amp;E, Database Management and Report Writing</li> </ul>
<ul style="list-style-type: none"> <li>▪ Staff complement</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inadequate personnel</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fifteen (15) No. of qualified M&amp;E staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ Recruit Additional M&amp;E staff</li> <li>▪ Technical assistance required to complement staff.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Leadership and Management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inadequate Managerial commitment to M&amp;E activities.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Management is adequately committed to M&amp;E activities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Upgrading of skills and knowledge of Management</li> </ul>
<b>2. MATERIAL RESOURCES</b>	<b>CURRENT SITUATION</b>	<b>DESIRED SITUATION</b>	<b>RECOMMENDATIONS</b>
<ul style="list-style-type: none"> <li>▪ Logistics (vehicles, stationery, documentation centre, computers, accessories, photocopiers)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inadequate material resources</li> </ul>	<ul style="list-style-type: none"> <li>▪ Adequate material resources</li> </ul>	<ul style="list-style-type: none"> <li>▪ There should be increase in the number of material resources available such as vehicles, computers, and hard drives to back up data received.</li> <li>▪ Acquire software for M&amp;E</li> </ul>

<ul style="list-style-type: none"> <li>▪ Internet connectivity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Internet connectivity available</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reliable Internet connectivity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improve network connectivity</li> </ul>
<b>3. FINANCIAL RESOURCES</b>	<b>CURRENT SITUATION</b>	<b>DESIRED SITUATION</b>	<b>RECOMMENDATIONS</b>
<ul style="list-style-type: none"> <li>▪ Availability of funds</li> <li>▪ Timely access of funds</li> <li>▪ Motivation and incentives</li> </ul>	<ul style="list-style-type: none"> <li>▪ There are not enough financial resources.</li> <li>▪ Inadequate motivation/incentives.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Adequate and timely release of funds</li> <li>▪ Adequate motivation/incentives for M&amp;E staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ Funds should be made available to undertake effective M&amp;E.</li> <li>▪ Funds to be sourced from other sources other than <b>GOG</b>.</li> </ul>

### 2.3 Monitoring Indicators

One of the critical steps in the M&E Plan is the development of appropriate indicators and realistic targets that are achievable over the plan period and directly related to the SMTDP goals and objectives. Indicators are necessary for measuring progress, while targets are the sign posts that will lead to the sector goal and objectives.

The specific indicators for monitoring the objectives are shown in **Table 2.4** below:

## 2.4 Monitoring Matrix

GOAL-ACCELERATED AGRICULTURAL MODERNISATION AND SUSTAINABLE NATURAL RESOURCE MANAGEMENT												
POLICY OBJECTIVE: STRENGTHEN INSTITUTIONAL AND REGULATORY FRAMEWORKS FOR SUSTAINABLE NATURAL RESOURCE MANAGEMENT												
OBJECTIVE:												
INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY			
			2014	2015	2016	2017						
Level of reviewed Environmental Assessment Guidelines	Output	Existing environmental assessment guidelines	20%	65	100		Environmental assessment guidelines	Annual	MESTI/EPA			
Level of reviewed Waste Management Regulations for oil and gas sector	Output	Existing waste management regulations	20%	65	100		Waste management regulations for oil and gas	Annual	MESTI/EPA			
Level of developed National Spatial Framework	Output	None	20%	45	70	100	National spatial framework	Annual	TCPD/NDPC			
Number of developed Regional spatial plans	Output	None	none	4	4	2	Regional spatial plans	Annual	TCPD/NDPC			
Number of District Spatial Plans developed	Output	None	none	50	100	150	District Spatial plan	Annual	TCPD/NDPC			
Percentage of work done on Environmental Sensitivity map	Output	30	50	70	90	100	Sensitivity Map	Annual	MESTI			
Percentage of work done on national Oil Spill Contingency plans	Output	None	20	50	75	100	National Contingency plan	Annual	MESTI/EPA			
Percentage of work on Biosafety Communication Strategy	Output	None	20	50	80	100	Biosafety Communication Strategy	Annual	MESTI/NBA			
Number of Biosafety training conducted	Output	None	3	3	3	3	Biodiversity Clearing House Mechanism	Annual	MESTI / NBC			
Number of Personnel Recruited	Output	None	1	1	10	10	Appointment letters	Annual	MESTI/NBA			
Percentage of logistics acquired	Output	None	10	30	60	100	Assets register	Annual	MESTI/NBA			
No. of comprehensive asset register	Output	2013 Register	1	1	1	1	All MESTI Directorates	Annually	MESTI – F&A			

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
No. of Procurement Plans prepared	Output	2013 Procurement Plan developed and executed	1	1	1	1	Number of procurement done	Quarterly	MESTI – F&A
Number of officers to receive Scheme of Service Training	Output	1	9	12	15	15	SMTDP/Annual Action Plan	Annually	MESTI- Human Resource Directorate
Number of officers trained	Output	14	14	17	19	19	Annual Action Plan	Annually	MESTI-Human Resource
Number of officers interviewed for promotion	Output	10	14	14	14	14	Annual Action Plan	Annually	MESTI- Human Resource Directorate
<b>POLICY OBJECTIVE:REDUCE LOSS OF BIODIVERSITY</b>									
<b>OBJECTIVE:</b>									
INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017			DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY	
			2014	2015	2016				2017
Percentage of Harmonized biodiversity agreements	Output	None	None	50%	50%	-	Harmonization agreements	Annual	MESTI / NBC
Level of national invasive alien species strategy	Output	None	None	50%	80%	100%	National alien species strategy	Annual	MESTI / NBC
Number of marine protected areas increased by	Output	None	None	2	3	None	Annual report	Annual	MESTI / NBC
Number of by-laws enacted and implemented on wetland protection	Output	None	None	2	2	2	MMDA by-laws	Annual	MESTI / NBC
Level of ecosystem payment and education	Output	None	None	30%	60	100	Annual report	Annual	MESTI / NBC

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017			DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016			
Level of awareness of Biodiversity and ecosystem services	Output	None	None	25%	65	100	Official files	Annual MESTI / NBC
Level of management on biosphere reserves and biodiversity hotspots	Output	None	None	40%	80%	100%	MMDA by-laws	Annual MESTI / NBC
No. of research activities undertaken under the implementation of MAB project	Output	2	3	4	5	6	Project Report	Annually EPA
No. of awareness raising activities undertaken under MAB project	Output	3	5	7	9	12	Project Report	Annually EPA
Number of communities using SLIM practices due to the implementation of Sustainable Land and water management project	Output	x	x	x	X	X	Project Report	Annually EPA
Number of National Biodiversity Committee meetings	Output	3	3	5	5	5	Minutes of NBC	Annual MESTI / NBC
<b>POLICY OBJECTIVE: ENHANCE CAPACITY TO ADAPT TO CLIMATE CHANGE IMPACTS</b>								
<b>OBJECTIVE:</b>								
	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017			DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
Number of pro-poor interventions developed and available for implementation in climate vulnerable communities	Output	0	0	2	2	2	Annual Progress Report	MESTI

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
Level of establishment of functional coordinating structures	Output	0%	0%	20%	60%	100%	Coordinating structures established and functional	Annual	MESTI
Governance structure established and functional	Output	None	None	Sub-structures developed	Forms of structures	Forms of structures	Structural report	Annual	MESTI
M&E plan available for monitoring climate change activities	Output	None	None	Draft M & E plan	Validate and finalize M&E plan	Implement M&E plan	M & E report	Annual	MESTI
Communication strategy available for sensitization and awareness creation	Output	Awareness on going	Awareness on going	Draft Communication Strategy developed	Validate and finalize Communication Strategy developed	Communication Strategy implemented	Strategy report	Annual	MESTI
No. of staff of MMDAs trained in climate change projects	Output	None	None	3 staff trained	3 staff trained	3 Staff trained	Training report	Annual	MESTI
Monitoring report on implementation of NCCPS at sector and district level	Output	None	Draft M & E plan	Validate and finalize M & E plan	Monitor & Evaluate	Monitor & Evaluate	M & E report	Annual	MESTI
Level of implementation of NCCPS at sector and district level	Output	0%	10%	50%	75%	100%	Monitoring reports	Annual	MESTI
Monitoring report on implementation of R&D component of NCCP	Output	None	None	Consultative meetings with institutions on R&D components developed	Consultative R&D components developed	Monitor and evaluate R&D component	M & E report	annual	MESTI

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
No. of smart agricultural programmes implemented from NCCPS with relevant MDAs	Output	2	2	3	3	4	Progress report	Annual	MESTI
No. of NAMAs for priority sectors (energy/transport, agricultural waste, natural resources) developed and available for implementation	Output	0	0	2	2	2	NAMA report	Annual	MESTI
NAMA investor guide available for promotion among business community	Output	None	Investor guide drafted	Investor guide validated and finalized	Copies of guide disseminated and implemented	Copies of guide disseminated and implemented	Investor report	annual	MESTI
No. of REDD+ readiness activities implemented with relevant MDAs	Output	Readiness report	Selected REDD+ pilot sites	Validated and finalized governance structure for REDD+	Validated and finalized governance structure for REDD+	plot sites disseminated and implemented	REDD+ implementation report	annual	MESTI
Level of NAMA communication strategy developed and disseminated to public and private sector	Output	0%	0%	20%	75%	100%	Communication Strategy	Annual	MESTI
Waste to Energy NAMAs developed for implementation	Output	None	Consultative meetings	Drafted NAMAs	Validated and finalized NAMAs	NAMAs disseminated to business community and implemented	NAMA report	annual	MESTI
Sanitation standards available for	Output	No standard	Drafted proposed standards	Validated and finalized standard	Standards disseminated to MIMDAS and	Standards disseminated to MIMDAS and	Standards report	Annual	MESTI



Implementation	Output	5	8	12	14	17	Reports	Quarterly	EPA	
										implemented
No. projects undertaken on climate change	Output	3	4	5	6	7	Project reports	Annually	EPA	
										implemented
No. activities carried out to phase out ozone depleting substances on the market	Output	5	6	7	7	8	Reports	Semi-annually	EPA	
										implemented
<b>POLICY OBJECTIVE: PROMOTE GREEN ECONOMY</b>										
<b>OBJECTIVE:</b>										
INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				2017	DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017				
GE model for Ghana available for use		None	Data collected	Model validated and finalized	Model disseminated and implemented	Model disseminated and implemented	GE report	Annual	MESTI	
Level of Low carbon strategy document developed		0%	20%	50%	75%	100%	Low Carbon strategy document	Annual	MESTI	
Number of MMDAs trained on GE.		0	3	3	3	3	GE report	Annual	MESTI	
Number of MMDAs with GE interventions in their development plans		0	3	3	3	3	GE report	Annual	MESTI	
GE assessment report available for decision making		None	Data collected	Data validated and finalized	Disseminated and implemented assessment report	Disseminated and implemented assessment report	GE assessment report	Annual	MESTI	
GE indicators developed for implementation at sector and district level		None	Data collected	Indicators validated and finalized	Disseminated and implemented indicators	Disseminated and implemented indicators	GE report	Annual	MESTI	

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
GE fiscal study report available for decision making		None	Data collected	Report validated and finalized	Report Disseminated and implemented	Report disseminated and implemented	GE report	Annual	MESTI
GE action plan available for implementation		None	Data collected	Validate and finalize action plan	Action plan disseminated and implemented	Action plan disseminated and implemented	GE report	Annual	MESTI
Level of completion of green city office complex at Damfa for EPA Head Office	Output	x	2%	40%	70%	100%	Reports and site verification	Semi-annually	EPA
No. of permits issued under the Environmental Assessment (EIA) Administration	output	x	10	10	10	10	Reports	Annually	EPA
Level of Chemicals compliance and management	Outcome	x	30%	50%	60%	80%	Reports	Semi-annually	EPA
Level of Establishment of Grievance database	Output	X	50%	80%	100%	100%	Reports	Semi-annually	EPA
No. of sites monitored for air quality	Output	8	10	11	13	14	Reports	Semi-annually	EPA
No. of industrial for effluent quality monitored	Output	26	26	27	28	32	Reports	Semi-annually	EPA
No. of hotel effluent quality monitored	Output	30	33	35	40	45	Reports	Semi-annually	EPA

INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
No. of facilities monitored at the jubilee fields for compliance	Output	5	7	8	9	10	Reports	Semi-annually EPA	
Level of establishment specialized environmental courts	Output	X	20%	40%	80%	100%	Reports	Annually EPA	
No. of sectors using AKOBEN Performance rating	Output	2	3	4	4	5	Reports	Semi-annually EPA	
No. mining and manufacturing undertakings using AKOBEN Performance rating for all operations	Output	Mining-10 Manufacturing g-100	Mining-12 Manufacturing g-107	Mining-13 Manufacturing-110	Mining-14 Manufacturing-115	Mining-16 Manufacturing-120	Reports	Semi-Annually EPA	
Level of completion of the Environmental Education Strategy for Ghana	Output	X	40%	70%	100%	100%	Reports	Semi-annually EPA	
<b>GOAL-INFRASTRUCTURE AND HUMAN SETTLEMENTS DEVELOPMENT</b>									
<b>POLICY OBJECTIVE:PROMOTE THE APPLICATION OF SCIENCE, TECHNOLOGY AND INNOVATION IN ALL SECTORS OF THE ECONOMY</b>									
<b>OBJECTIVE:</b>									
INDICATORS	INDICATOR TYPE	BASELINE 2013	TARGETS 2014 – 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY
			2014	2015	2016	2017			
Number of major research findings adopted by industries/private sector	Outcome	7	10	12	13	15	GAEC Annual report/interviews with beneficiaries	Annually	GAEC
			2014	2015	2016	2017			
Number of technologies developed and adopted	Output	5	6	8	9	12	GAEC Annual report/interviews	Annually	GAEC

by MSMEs.	10%	12%	15%	20%	25%	with beneficiaries	Annually	GAEC	
Percentage increase in IGF through transfer of R&D technologies	Output	10%	12%	15%	20%	25%	GAEC Annual report	Annually	GAEC
Nuclear Regulatory Authority bill passed	Output	Bill submitted to Parliament	Bill passed	Bill passed if not done in previous year.	-	-	Bills passed available	Annually	GAEC
Total number of Nuclear Regulatory conventions ratified	Output	5	6	8	9	10	Conventions passed available	Annually	GAEC
Level of establishment of Nuclear Regulatory Authority	Output	30%	75%	100%	-	-	Nuclear Regulatory Authority established and operational	Annually	GAEC/MESTI/MoE
Level of stakeholder/public sensitization on adoption of nuclear energy	Output	30%	45%	60%	70%	90%	GAEC annual Reports/interview with stakeholders	Annually	GAEC
Number of radioactive waste sources managed	Output	15	20	25	30	30	GAEC annual Reports	Annually	GAEC
Percentage of baits produced for farmers to control the fruit fly menace	Output	10%	25%	50%	60%	70%	GAEC annual Reports/baits available to farmers	Annually	GAEC/MoFA
Number of varieties of quality planting materials multiplied and	Output	5	7	7	8	10	GAEC annual Reports/ farmers	Annually	GAEC

supplied to farmers													
Percentage of work done on irrigation dam for research	Output	-	25%	50%	80%	100%		GAEC annual Reports/Constructed dam available and in use	Annually	GAEC			
Number of agricultural products preserved by irradiation for the local and international market	Output	3	5	8	10	15		GAEC annual Reports/available products on the market	Annually	GAEC/MoFA/MoTI			
Number of radioactive routine assessments undertaken at the oil rig at Cape Three Points	Output	2	3	4	4	4		GAEC annual Reports	Annually	GAEC			
Number of base stations assessed for telecommunication	Output	400	500	700	1000	1000		GAEC annual Reports/certificate issued to Mobile phone operating companies	Annually	GAEC/NCA			
Number of mining sites assessed for radioactivity exposure	Output	30	35	35	35	35		GAEC annual Reports	Annually	GAEC			
Number of Nuclear Scientists trained annually	Output	80	120	120	120	120		GAEC annual Reports/Academic records with UG	Annually	GAEC/University of Ghana			
Number of professional radiation workers trained	Output	50	50	60	60	60		GAEC annual Reports/Academic records with SNAS	Annually	GAEC/IAEA			
Level of conversion of satellite into radio telescope for astronomical studies	Output	30%	50%	90%	100%	-		Radio telescope at Kuntunse in use for astronomical studies	Annually	GAEC/MESTI			
Status of installing a	Output	-	25%	50%	75%	100%		Ground receiving	Annually	GAEC/MESTI			

satellite receiving station	ground station	Output								station established and in operation		
Level of developing 1kW Fuel Cell power plant	-	Output	-	40% completed	90% completed	Fuel Cell Power Plant in use.	Operational Fuel Cell Module at the GAEC in use	Annually	GAEC			
Unmanned Area Vehicle (UAV) - Cropcam acquired and in use.	-	Output	UAV acquired	UAV in use	UAV in use	UAV in use	Unmanned Area Vehicle UAV (Cropcam) acquired and in use.	Annually	GAEC			
Number of Astronomy Clubs established in selected Senior High Schools in Ghana	-	Output	-	10	25	50	GAEC annual Reports/ existence of Clubs at second cycle institutions	Annually	GAEC			
Number of Nuclear and Medical Imaging Centre staff trained annually	3	Output	3	4	4	4	GAEC annual Reports/ number of trained professionals available	Annually	GAEC			
Number of Vulnerable groups (infants, lactating mothers, HIV/ AIDS/TB subjects) assessed with intervention programmes	2	Output	3	4	5	-	GAEC annual Reports/ refereed Journals	Annually	GAEC			
Number of research conducted to improve radiotherapy and cancer treatment.	2	Output	3	5	5	6	GAEC annual Reports/ refereed Journals	Annually	GAEC			
Number of prisons visited to test TB multi-drug resistance among inmates of selected prisons assessed with	5	Output	5	6	7	-	GAEC annual Reports/ refereed Journals	Annually	GAEC			

isotopic techniques.																
Level of upgraded work on the Gamma Irradiation Facility (GIF) to at least 500kCi	Output	10%	20%	25%	75%	100%	Gamma Irradiation Facility (GIF) operated at a minimum of 500kCi	Annually			GAEC					
Percentage completion of special laboratories and needed offices	Output	-	30%	50%	75%	95%	Part of reactor building rehabilitated into offices and laboratories in use.	Annually			GAEC					
Percentage (%) of Centralized Waste Processing facility established	Output	-	25%	75%	100%	-	Refurbished Central Waste system in operation.	Annually			GAEC					
Length of constructed fence to cover GAEC boundaries	Output	-	-	10km	20km	30km	Fenced portions of GAEC boundaries	Annually			GAEC					
Number of laptops distributed under the Better Ghana ICT Project	Output	35,000	30,000 laptops				STI Directorate Report, Stores Returns, rLG Communications					MESTI-STI Directorate				
Number of Reports and cabinet memos on new strategies for implementing the Better Ghana ICT Project	Output	NA	-	<ul style="list-style-type: none"> <li>2 reports</li> <li>1 cabinet memo</li> </ul>	-	-	STI Directorate					MESTI-STI Directorate				
Number of laptops distributed to community schools for the implementation of the Ghana -South African White Space Project	Output	-	25,000	25,000	25,000	25,000	STI Directorate, GTUC, DST-SA.					MESTI-STI Directorate				

No. of MASTESS beneficiaries	Output	-	2,500	2,500	2,500	2,500	2,500	2,500	2,500	STI Directorate, MOE, Scholarship Secretariat		MESTI-STI Directorate
Percentage of work completed on the STI Building	Output	-	25%	100%	100%	N/A	N/A	75%	N/A	STI Directorate, COTVET, World Bank and Ministry of Finance		MESTI-STI Directorate
Review the national STI Policy development plan	Output	N/A	N/A	N/A	STI Policy development plan reviewed	N/A	N/A	N/A	N/A	STI Directorate	Quarterly	MESTI-STI Directorate
Number of institutions captured under the STI baseline survey	Output	-	-	-	20	-	-	20	-	STI Directorate	Quarterly	MESTI-STI Directorate
Percentage of work completed on STI website	Output	-	-	100%	50%	100%	100%	50%	100%	STI Directorate	Annually	MESTI-STI Directorate
Percentage of work completed on the establishment of innovation cluster	Output	-	25%	75%	50%	75%	100%	50%	100%	STI Directorate	Biannually	MESTI-STI Directorate
Number of Reports on the establishment of technology parks	Output	-	5	5	5	5	4	5	4	STI Directorate	Biannually	MESTI-STI Directorate
Number of agreements and collaborations on National Contacts Points (NCPs) of the EU Horizon 2020 programme	Output	Two meetings for national coordinators attended	4	3	3	4	4	3	4	STI Directorate	Quarterly	MESTI-STI Directorate
Number of Items published	Output	4,000	1,000	6,000	5,000	6,000	6,000	5,000	6,000	Published materials	Annually	MESTI- RSIM
Number of International Days celebrated	Output	4	4	4	4	4	4	4	4	Minutes of planning committee	Annually	MESTI- RSIM



Number of Environmental journalists awards Organized	Output	NA	1	1	1	1	1	1	1	1	minutes of planning committee meetings,	Annually	MESTI- RSIM
Number of media events organized for the minister	Output	20	30	40	40	40	40	40	40	40	Newspaper publications	Annually	MESTI- RSIM
Number of Meet-The-Press sessions organized	Output	1	1	1	1	1	1	1	1	1	Media reportage, minutes of planning committee meetings	Annually	MESTI- RSIM
Number of Policy Fairs organized	Output	1	1	1	1	1	1	1	1	1	Minutes of planning committee meetings, Media reports	Annually	MESTI- RSIM
Number of ICT Installations made	Output	-	1	4	4	4	4	4	4	5	Tender report	Annually	MESTI- RSIM
No. of agricultural technologies promoted	Out put	28	37	46	55	63	63	63	63	63	CSIR Agricultural based Institutes	Half yearly	Directors of CSIR Agricultural based Institutes
No. of water and sanitation technologies and services promoted.	Output	4	5	7	9	10	10	10	10	10	CSIR - WRI	Half yearly	Director of CSIR - WRI
No. of road networks and road materials investigated	Output	5	8	10	13	16	16	16	16	16	CSIR - BTRI	Half yearly	Director of CSIR - BTRI
No. and types of wood species used for electric poles.	Output	2	4	6	8	10	10	10	10	10	CSIR - FORIG	Yearly	Director of CSIR - FORIG
No. and types of agriculture wastes developed into bio-fuels	Output	1	2	3	5	6	6	6	6	6	CSIR-IIR	Yearly	Director of CSIR - IIR
No. of houses built with local building materials	Output	50	60	70	90	100	100	100	100	100	CSIR - BTRI	Yearly	Director of CSIR - BTRI

or no. of fast track techniques promoted																						
No. of STI policy research conducted	Output	6	10	14	18	25														Director of CSIR - STEPRI		
No. of scientific publications disseminated	Output	10	15	16	17	20														Director of CSIR		
No of genetic resources conserved oin the Country	Output	20	25	35	40	50														Director of CSIR - PGRRI		
<b>POLICY OBJECTIVE:STRENGTHEN THE INSTITUTIONAL FRAMEWORK TO PROMOTE THE DEVELOPMENT OF RESEARCH AND ITS APPLICATION</b>																						
<b>OBJECTIVE:</b>																						
<b>INDICATORS</b>	<b>INDICATOR TYPE</b>	<b>BASELINE 2013</b>	<b>TARGETS 2014 - 2017</b>				<b>DATA SOURCES</b>	<b>MONITORING FREQUENCY</b>	<b>RESPONSIBILITY</b>													
LI developed on the establishment of the STI Fund	Output	Existing STI Fund committee	2014	2015	2016	2017	STI Directorate	Quarterly	MESTI-STI Directorate													
Number of Reports on R & D institutions to establish operation centres for developing and marketing technologies	Output	5 R&D institutions selected to undertake activities to create industrial linkages and commercialize research output	5	5	5	5	STI Directorate, CSIR-STEPRI, GAEC, GTUC, K-Poly, UG	Biannually	MESTI-STI Directorate													
Number of Reports and minutes on the GSC	Output	-	3	6	4	3	STI Directorate	Quarterly	MESTI-STI Directorate													
Number of Reports of all conferences attended and	Output	5	5	8	8	8	STI Directorate	Quarterly	MESTI-STI Directorate													

INDICATORS	INDICATOR TYPE	BASELINE 2013					TARGETS 2014 - 2017					DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY	
		2014	2015	2016	2017	2018	2019	2020	2021	2022					
Agreements signed															
Number of Progress reports of the phase 2 and 3 of the implementation of the policy on the use of local building materials in the construction industry	Output	160	178	200	250	300	10	10	10	10	10	STI Directorate, ARC, MWHWR, EC, GHIE, CSIR-FORIG, CSIR-BRRI, MOTI, MDPI	Biannually	MESTI-STI Directorate	
No. of Local plans prepared	Output	160	178	200	250	300	10	10	10	10		DPCU, TCPD	Annually	DPCUs	
Percentage of required spatial data collected	Output	5%	10%	20%	30%	35%						DPCUs, TCPD	Annually	DPCUs	
Monitoring reports and percentage of indicators for Annual Progress Report (APR) covered	Output	1	1	1	1	1						TCPD	Semi-annually	TCPD	
Coverage of base maps acquired	Output	20%	30%	40%	50%	55%						LC, TCPD	Annually	LC	
No. of site and services schemes carried out.	Output	30	40	50	60	70						GREDA, TCPD	Annually	TCPD	
Published copies of human settlement policy document	Output	0	0	0	100	500						NDPC	Annually	NDPC	
<b>GOAL:INFRASTRUCTURE AND HUMAN SETTLEMENTS DEVELOPMENT</b>															
<b>POLICY OBJECTIVE: Promote a sustainable, spatially integrated and orderly development of human settlements</b>															

Number of stakeholders reached with the Human Settlement policy	Output	0	0	0	80	400	NDPC	Annually	NDPC
Number of participants in the World Town Planning Day celebration	Output	50	0	80	100	100	TCPD	Annually	TCPD
Number of copies of information on town planning operations printed	Output	800	800	5000	8000	10,000	TCPD	Annually	TCPD
Number of media persons participating in the press soiree	Output	25	50	60	80	100	TCPD	Annually	TCPD
Number of public lectures organised	Output	0	0	1	2	2	TCPD, MESTI	Annually	TCPD
Number of public awareness programmes organised	Output	4	3	3	10	20	TCPD	Annually	TCPD
Date of completing the revision exercise on national zoning regulations	Output	0	0	0	Dec. 31st	-	TCPD	2016	TCPD
Date of completing the revision exercise on planning manuals	Output	0	0	0	Dec. 31st	-	TCPD	2016	TCPD
Number of stakeholders trained in application of planning standards and zoning guidelines	Output	0	0	50	80	150	TCPD	Annually	TCPD
Number of officers	Output	40	60	100	150	200	TCPD	Annually	TCPD

trained in spatial planning models																	
Number of MMDAs that have integrated spatial planning into their planning processes	Output	5	5	80	100												MMMDAs, NDPC
Upgraded version of the LUPMIS	Output	-	Dec. 31st	-	-												TCPD
Final version of the LUPMIS Training manual	Output	-	-	Dec. 31st	-												TCPD
Number of stakeholders trained in GIS	Output	25	30	50	60	100											TCPD
Number of vehicles procured	Output	4	0	8	10	15											MESTI, MLNR
Number of offices refurbished	Output	0	0	4	8	10											MLNR, TCPD
Number of computers procured	Output	0	0	10	20	40											MLNR, MESTI
Number of plotters, scanners and GPS receivers procured	Output	0	0	4	6	15											MLGRD, MESTI
Integrated GIS platform comprising Land Use Planning and Management Information System (LUPMIS) and National Spatial Data Infrastructure (NSDI)	Output	-	-	Dec. 31st	-	-											MLNR, NITA
Number of professional planners recruited	Output	0	0	20	40	70											PSC, OHCS
Number of new officers participating in the induction training	Output	0	0	20	40	70											TCPD

Number of persons participating in the study tour	2		10	15	18	20	TCPD	Annually	MLNR, MESTI
Date of establishment of the Land use and spatial planning authority	-	-	-	Dec. 31 <sup>st</sup> .	-	-	TCPD	2015	PSC, MESTI
The land use and planning development fund	-	-	-	-	Dec. 31 <sup>st</sup>	-	TCPD	2016	MoF, MESTI
Office building for the land use and spatial planning authority	-	-	-	-	Dec. 31 <sup>st</sup>	-	TCPD	2016	TCPD, MESTI
Number of offices refurbished	0	0	4	6	8	8	TCPD	Annually	MLNR, TCPD
Number of officers participating in international conferences	0	0	3	6	8	8	TCPD	Annually	TCPD
Number of staff participating in short courses	2	3	5	8	10	10	TCPD	Annually	TCPD, MLNR
Number of staff participating in postgraduate programmes in spatial planning	2	2	6	8	10	10	TCPD	Annually	TCPD, MLNR
Number of staff participating in terminal degrees	0	0	0	1	2	2	TCPD	Annually	TCPD
Number of staff for courses	0	4	10	15	20	20	TCPD	Annually	TCPD
Date of completion of curricular for middle level staff in the polytechnics	0	0	0	Dec. 31 <sup>st</sup>	-	-	TCPD	2016	TCPD, GIP
Number of mobile planning teams	2	2	4	6	10	10	TCPD	Annually	TCPD

established The national spatial development framework	Output	0	0	Dec. 31st	-	-	TCPD	Annually	NDPC, TCPD, MESTI
Number of zonal site visits conducted for chiefs and land owners	Output	0	0	2	4	6	TCPD	Annually	TCPD, MMDAs
Evaluation report on the south east green belt project	Output	0	0	0	Dec. 31st	-	TCPD	2016	TCPD, GAR/RCC
Number of public education campaign	Output	2	4	6	10	15	TCPD	Annually	TCPD
Number of monitoring visits and reports	Output	1	0	2	2	2	TCPD	Annually	TCPD
Number of stakeholders trained in GIS	Output	25	30	50	80	100	TCPD	Annually	TCPD
Percentage of permitting data collected	Output	9%	9%	20%	40%	50%	TCPD	Annually	TCPD
Status of completion of review of permitting guidelines	Output	-	-	100%	100%	100%	TCPD	Annually	TCPD
No. of meetings held and minutes indicating conclusions	Output	1	2	3	4	4	TCPD	Annually	TCPD
Number of stakeholders trained in street naming	Output	30	40	80	150	200	TCPD	Annually	TCPD
number of redevelopment plans prepared	Output	5	8	10	15	20	TCPD	Annually	TCPD
Number of locations covered with urban densification plans	Output	1	3	8	10	15	TCPD	Annually	TCPD
Number of regional SDFs prepared	Output	1	1	4	4	8	TCPD	Annually	TCPD
Number of district	Output	6	6	6	8	10	TCPD	Annually	TCPD

SDFs prepared	6	10	12	15	20	TCPD	Annually	TCPD						
Number of structure plans prepared	0	0	1	2	3	TCPD	Annually	SADA, MESTI						
Number of Plans prepared for the special development corridors	-	-	Dec. 31st	-	-	TCPD	Annually	MESTI						
Business Plan for the LUSPA	-	-	Dec. 31st	-	-	TCPD	Annually	MESTI, MLNR						
Date of Presidential Assent to the Land Use and Spatial Planning Bill	-	-	-	June 30th	-	TCPD	2016	MESTI						
Date of passage of the requisite LIs for land use and spatial planning and management	-	-	-	50	200	TCPD	Annually	TCPD, SG's Dept.						
Number of copies of the land use and spatial planning law distributed	20	50	100	200	500	TCPD	Annually	TCPD						
Number of information materials distributed	50	100	150	200	500	TCPD	Annually	TCPD						
Number of key stakeholders sensitised														
Date of formulation of the Planners Registration Council Bill				31 <sup>st</sup> December										
<b>GOAL: TRANSPARENT AND ACCOUNTABLE GOVERNANCE</b>														
<b>POLICY OBJECTIVE: Strengthen policy formulation, development planning, and M&amp;E processes for equitable and balanced spatial and socio-economic development</b>														
INDICATORS	INDICATOR TYPE	BASELINE 2013					TARGETS 2014 - 2017				DATA SOURCES	MONITORING FREQUENCY	RESPONSIBILITY	
		2014	2015	2016	2017	2017	2014 Annual Action Plan	2015 Annual Action Plan	2016 Annual Action Plan	2017 Annual Action Plan				Sector Medium Term Plan / Annual budget/ Directorates
Annual Action Plan developed	Output	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	Biannual	MESTI-PPMED
MESTI Progress Annual Report	Output	MESTI inputs into National	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	MESTI 2013 Annual Action Plan	Annually	MESTI-PPMED



prepared		APR	Progress Report	Progress Report	Progress Report	Progress Report	Progress Report	Progress Report	Progress Report	SMITDP, Annual Action Plan/ All Directorates	Annually	MESTI-PPMED	
Mid-year workshop prepared	Output	2013 mid-year status report	Revised 2014 Annual Action Plan and Workshop report	Revised 2015 Annual Action Plan and Workshop report	Revised 2016 Annual Action Plan and Workshop report	Revised 2017 Annual Action Plan and Workshop report	4 Progress reports prepared by Dec. 2014	4 Progress reports prepared by Dec. 2015	4 Progress reports prepared by Dec. 2016	4 Progress reports prepared by Dec. 2017	SMITDP, Annual Action Plan/ All Directorates	Annually	MESTI-PPMED
Quarterly progress report prepared	Output		4 Progress reports prepared by Dec. 2014	4 Progress reports prepared by Dec. 2015	4 Progress reports prepared by Dec. 2016	4 Progress reports prepared by Dec. 2017	4 Progress reports prepared by Dec. 2014	4 Progress reports prepared by Dec. 2015	4 Progress reports prepared by Dec. 2016	4 Progress reports prepared by Dec. 2017	All Agencies/ Departments	Quarterly	MESTI-PPMED
M & E database updated	Output	N/A	Update M&E database	Update M&E database	Update M&E database	Update M&E database	Update M&E database	Update M&E database	Update M&E database	Update M&E database	SMITDP, Sector M&E plan	Quarterly	
Mining companies monitoring report prepared	Output	4 monitoring reports	4 mining companies monitored by end of 2014	4 mining companies monitored by end of 2015	4 mining companies monitored by end of 2016	4 mining companies monitored by end of 2017	4 mining companies monitored by end of 2014	4 mining companies monitored by end of 2015	4 mining companies monitored by end of 2016	4 mining companies monitored by end of 2017	Mining companies	Quarterly	MESTI-PPMED
Telecom companies monitoring report prepared	Output	5 monitoring reports	4 telecom companies monitored by end of 2014	4 telecom companies monitored by end of 2015	4 telecom companies monitored by end of 2016	4 telecom companies monitored by end of 2017	4 telecom companies monitored by end of 2014	4 telecom companies monitored by end of 2015	4 telecom companies monitored by end of 2016	4 telecom companies monitored by end of 2017	Telecommunication companies	Quarterly	MESTI-PPMED
Projects/ Programmes monitoring reports prepared	Output	5 monitoring reports	Monitoring reports of 4 projects of MESTI-MDA	Monitoring reports of 4 projects of MESTI	Monitoring reports of 4 projects of MESTI-MDA	Monitoring reports of 4 projects of MESTI	Monitoring reports of 4 projects of MESTI-MDA	Monitoring reports of 4 projects of MESTI	Monitoring reports of 4 projects of MESTI-MDA	Monitoring reports of 4 projects of MESTI	Agencies/ Department/ Directorates	Quarterly	MESTI-PPMED
Annual Sector Budget approved	Output	Approved 2014 Budget	Approved 2015 budget	Approved 2016 budget	Approved 2017 budget	Approved 2018 budget	Approved 2015 budget	Approved 2016 budget	Approved 2017 budget	Approved 2018 budget	Agencies/ Department/ Directorates	Annually	MESTI-PPMED

## 2.5 M&E Work Plan And Calendar

The M&E work plan is a vital component of the M&E Plan. It serves as a guide to the implementation of the M&E Plan. The work plan indicates the time frame and budget relating to each activity as well as the actors and their roles in the M&E Plan.

**Table 2.5: M&E Work Plan and Calendar**

Activities	Time Frame				Actors	Budget (GH¢)
	2014	2015	2016	2017		
<b>Plan Preparation</b>						
Sector M&E Plan preparation	2017				PPMED/ Agencies/ NDPC Department/ Directorates	<b>63,300.00</b>
<b>SMTDP Evaluations</b>						
Mid-Term Evaluation of the SMTDP	July, 2016				PPMED/ Agencies/ Directorates Department/ DPs	57,000.00
Terminal Evaluation of the SMTDP	March, 2018				PPMED/ Agencies/ Directorates Department/ DPs	57,000.00
Mid-term Evaluation and studies of Sector policies and selected projects	2014-2017				PPMED/ Agencies/ Directorates Department/ DPs	111,000.00
Ex-post Evaluation of selected policies, programmes and projects	2014-2017				PPMED/ Agencies/ Directorates Department/ DPs	124,000.00
<b>Total</b>						<b>349,000.00</b>
<b>Implementation Monitoring</b>						
Prepare, and submit Sector APR to National Development Planning Commission (NDPC)	Quarterly/Annually				PPMED/ Agencies/ Directorates Department/	149,100
Prepare and submit Annual	Annually				PPMED/ Department/	73,700

Activities	Time Frame				Actors	Budget (GH¢)
	2014	2015	2016	2017		
Performance Report (APR) to Office of the Head of Civil Service (OHCS)					Agencies/ Directorates	
Quarterly and annual review meetings	Quarterly/ Annually				PPMED/ Department/ Agencies/ Directorates	398,100.00
Monitoring/field visits	Quarterly				PPMED/ Department/ Agencies/ Directorates	2,856,200.00
<b>Grand Total</b>						<b>3,889,400.00</b>
M&E activities of CSIR	Annually				CSIR	733,200.00
<b>CSIR Total</b>						<b>733,200.00</b>
M&E activities of GAEC	Annually				GAEC	210,000.00
<b>GAEC Total</b>						<b>210,000.00</b>
Environmental Compliance monitoring and enforcement	Quarterly				EPA	23,000,000.00
Monitoring of EPA infrastructure projects	Monthly				EPA	4,698,000.00
Financial audit of EPA administrative units/ departments/ districts/ regions	Annually				EPA	4,237,500.00
<b>EPA Total</b>						<b>31,935,500.00</b>
M&E activities of TCPD	Annually				TCPD	256,000.00
<b>TCPD Total</b>						<b>256,000.00</b>
Build M&E Capacity	Annually				MESTI/ GIMPA	229,800.00

Activities	Time Frame				Actors	Budget (GH¢)
	2014	2015	2016	2017		
<b>OVERALL TOTAL</b>						<b>37,253,900.00</b>

## 2.6 M&E Budget

The Sector M&E Plan can only be implemented if the necessary resources, including financial, are made available to M&E Units within the sector. The budget therefore provides an indication of what will be required to ensure the successful implementation of the M&E Plan over the 2014-2017 period.

**Table 2.6 M & E Budget**

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequency	Unit Cost (GHC)	Amount (GHC)
<b>Preparation of Sector M&amp;E Plan</b>	Organise meetings to prepare Sector M&E plan	Facilitators	1	6	500	3,000.00
		Conference package	30	6	35	6,300.00
		Allowances/ per diem	30	6	300	54,000.00
		Travel/fuel	-	-	-	-
		Accommodation	-	-	-	-
		Logistics	-	-	-	-
<b>Sub-Total</b>						<b>63,300.00</b>
<b>Mid-Term Evaluation</b>	Undertake mid-term evaluation of SMTDP	Facilitators	1	2	1,000	2,000.00
		Conference package	50	2	50	5,000.00
		Allowances/ per diem	50	2	500	50,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequency	Unit Cost (GHC)	Amount (GHC)
Terminal Evaluation	Undertake Terminal Evaluation of SMTDP	Facilitators	1	2	1,000	2,000.00
		Conference package	50	2	50	5,000.00
		Allowances/ per diem	50	2	500	50,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				
Mid-term Evaluation of Sector Policies	Organize mid-term evaluation of the National Environment and Climate Change Policies	Facilitators	1	3	1,000.00	3,000.00
		Conference package	50	3	50	7,500.00
		Allowances/ per diem	50	3	300	45,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Organize mid-term evaluation of STI Policy	Facilitators	1	3	1,000.00	3,000.00
		Conference package	50	3	50	7,500.00
		Allowances/ per diem	50	3	300	45,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-total</b>				
<b>Total</b>					<b>111,000.00</b>	
Ex-post Evaluation of	Organise ex-	Facilitators	1	6	1,000.00	6,000.00

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
<b>Sector policies and selected programmes and projects</b>	post evaluation of sector policies and selected programmes and projects (GEMP, SLWMP, Biodiversity, SEMOG, Use of Local Building Materials)	Conference package	25	6	50	7,500.00
		Allowances/per diem	25	6	200	30,000.00
		Travel/fuel	5	2	100	1,000.00
		Accommodation	25	6	250	37,500.00
		Logistic	-	-	-	-
					<b>Total</b>	<b>82,000.00</b>
	Evaluate the establishment of the Innovation Cluster	Facilitators	1	4	500	2,000.00
		Conference package	6	12	50	3,600.00
		Allowance/Per diem	6	12	250	18,000.00
		Travel/fuel	2	8	250	4,000.00
		Accommodation	6	12	200	14,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
					<b>TOTAL</b>	<b>349,000.00</b>
<b>Prepare and submit Annual Progress Report (APR) to National Development Planning Commission (NDPC)</b>	Organise preliminary meetings	Facilitators	-	-	-	-
		Conference package	20	4	35	2,800.00
		Allowances/per diem	20	4	300	24,000.00
		Travel/fuel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
<b>Sub-Total</b>						<b>26,800.00</b>
	Organise quarterly Progress review	Facilitators	-	-	-	-
		Conference package	20	16	35	11,200.00

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	meetings	Allowances/ per diem	20	16	300	96,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				
	Organize draft APR review meeting	Facilitators	-	-	-	-
		Conference package	35	4	35	4,900.00
		Allowances/ per diem	35	4	300	42,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				
	Organise Sector APR dissemination workshop	Facilitators	1	4	500	2,000.00
		Conference package	50	4	35	7,000.00
		Allowances/ per diem	50	4	300	60,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		Publication/ printing	20	4	80	6,400.00
	<b>Sub-Total</b>					<b>75,400.00</b>
<b>Total</b>						<b>256,300.00</b>
<b>Prepare and submit Annual Performance Report (APR) to Office of the Head of Civil Service</b>	Organise preliminary meetings	Facilitators	-	-	-	-
		Conference	20	4	35	2,800.00

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
(OHCS)		package				
		Allowances/per diem	20	4	300	24,000.00
		Travel/fuel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				
	Organise quarterly Performance review meetings	Facilitators	-	-	-	-
		Conference package	20	16	35	11,200.00
		Allowances/ per diem	20	16	300	96,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-Total</b>				
	Organize draft APR review meeting	Facilitators	-	-	-	-
		Conference package	35	4	35	4,900.00
		Allowances/ per diem	35	4	300	42,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
<b>Sub-Total</b>						<b>46,900.00</b>
<b>Total</b>						<b>180,900.00</b>
Quarterly/ Annual Reviews	Organize workshop for review of monitoring	Facilitator	1	4	500	2,000.00
		Conference package	20	4	50	4,000.00



ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	indicators and M&E calendar	Allowances/per diem	20	4	300	24,000.00
		Travel	-	-	-	-
		Accommodation	-	-	-	-
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Review the Implementation of the 3-year Ghana-South Africa S&T Plan of Action	Facilitators	1	3	500	1,500.00
		Conference package	30	3	50	4,500.00
		Allowance/Per diem	30	3	250	22,500.00
		Travel/fuel	15	1	500	7,500.00
		Accommodation	15	3	500	22,500.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Organise review meetings on the implementation of Phases 2 and 3 of the Action Plan on the use of local building materials in the construction industry	Facilitators	-	-	-	-
		Conference package	30	8	50	12,000.00
		Allowance/Per diem	30	8	250	60,000.00
		Travel/fuel	2	4	500	4,000.00
		Accommodation	4	16	300	19,200.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
					<b>Total</b>	<b>183,700.00</b>
	Monitor the implementation of the alternative livelihood programme in Climate Change	Facilitators	-	-	-	-
Conference package		6	20	50	6,000.00	
Allowances/per diem		6	20	250	30,000.00	

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	affected areas	Travel/fuel	2	8	500	8,000.00
		Accommodation	6	16	200	19,200.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the implementation of Green Economy	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00
		Allowances/per diem	6	20	250	30,000.00
		Travel/fuel	2	8	500	8,000.00
		Accommodation	6	16	200	19,200.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor and evaluate the Coastal Development Project	Facilitators	-	-	-	-
		Conference package	6	80	50	24,000.00
		Allowances/ Per diem	6	80	250	120,000.00
		Travel/fuel	2	32	500	32,000.00
		Accommodation	6	80	200	96,000.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor and evaluate the implementation of Biodiversity activities	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00
		Allowances/ Per diem	6	20	250	30,000.00
		Travel/fuel	2	8	1,000	16,000.00
		Accommodation	6	16	200	19,200.00
Logistic		-	-	-	-	

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
		<b>Sub-total</b>				<b>71,200.00</b>
	Monitor and evaluate the effective management of biosphere reserve and other hotspots	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00
		Allowance/Per diem	6	20	250	30,000.00
		Travel/fuel	2	8	1,000	16,000.00
		Accommodation	6	16	200	19,200.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor and evaluate the establishment and operationalization of marine protected areas	Facilitators	-	-	-	-
		Conference package	6	32	50	9,600.00
		Allowance/Per diem	6	32	250	48,000.00
		Travel/fuel	2	16	500	16,000.00
		Accommodation	6	32	200	38,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor and evaluate the implementation of the national strategy on alien species	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00
		Allowance/Per diem	6	20	250	30,000.00
		Travel/fuel	2	8	1,000	16,000.00
		Accommodation	6	16	200	19,200.00
		Logistic	-	-	-	-
	<b>Sub-total</b>					<b>71,200.00</b>
	Monitor and evaluate the implementation of the energy	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)	
	efficiency project	Allowance/Per diem	6	20	250	30,000.00	
		Travel/fuel	2	8	1,000	16,000.00	
		Accommodation	6	16	200	19,200.00	
		Logistic	-	-	-	-	
		<b>Sub-total</b>					
	Monitor and evaluate the implementation of the system of payment of ecosystem services	Facilitators	-	-	-	-	
		Conference package	6	20	50	6,000.00	
		Allowance/Per diem	6	20	250	30,000.00	
		Travel/fuel	2	8	600	9,600.00	
		Accommodation	6	16	200	19,200.00	
		Logistic	-	-	-	-	
	<b>Sub-total</b>						<b>64,800.00</b>
	Monitor and Evaluate the compliance to spatial plans for areas around the oil belt	Facilitators	-	-	-	-	
		Conference package	6	16	50	4,800.00	
		Allowance/ Per diem	6	16	250	24,000.00	
		Travel/fuel	2	8	500	8,000.00	
		Accommodation	6	16	200	19,200.00	
		Logistic	-	-	-	-	
	<b>Sub-total</b>						<b>56,000.00</b>
	Monitor and Evaluate the institutions that enforce regulations for sustainable development of the management of the oil and gas	Facilitators	-	-	-	-	
		Conference package	6	16	50	4,800.00	
Allowance/ Per diem		6	16	250	24,000.00		
Travel/fuel		2	8	500	8,000.00		
Accommodation		6	16	200	19,200.00		

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	industry	Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the implementation of GEMP	Facilitators	-	-	-	-
		Conference package	6	60	50	18,000.00
		Allowance/Per diem	6	60	250	90,000.00
		Travel/fuel	2	24	1,000	48,000.00
		Accommodation	6	60	200	72,000.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the implementation of SLWMP	Facilitators	-	-	-	-
		Conference package	6	60	50	18,000.00
		Allowance/Per diem	6	60	250	90,000.00
		Travel/fuel	2	24	1,000	48,000.00
		Accommodation	6	60	200	72,000.00
		Logistic				
		<b>Sub-total</b>				
	Monitor the activities of mining companies	Facilitators	-	-	-	-
		Conference package	6	64	50	19,200.00
		Allowance/Per diem	6	64	250	96,000.00
		Travel/fuel	2	32	800	51,200.00
		Accommodation	6	64	200	76,800.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the	Facilitators	-	-	-	-

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	activities of telecommunication companies	Conference package	6	64	50	19,200.00
		Allowance/Per diem	6	64	250	96,000.00
		Travel/fuel	2	32	800	51,200.00
		Accommodation	6	64	200	76,800.00
		Logistic				
		<b>Sub-total</b>				
	Monitor two (2) projects of EPA	Facilitators	-	-	-	-
		Conference package	6	60	50	18,000.00
		Allowance/Per diem	6	60	250	90,000.00
		Travel/fuel	2	24	1,000	48,000.00
		Accommodation	6	60	200	72,000.00
		Logistic	-	-	-	-
	<b>Sub-total</b>					<b>228,000.00</b>
	Undertake environmental compliance enforcement in selected regions (Greater-Accra, Ashanti, Central, Western, Eastern)	Facilitators	-	-	-	-
Conference package		6	60	50	18,000.00	
Allowance/Per diem		6	60	250	90,000.00	
Travel/fuel		2	32	1,000	64,000.00	
Accommodation		6	60	200	72,000.00	
Logistic		-	-	-	-	
<b>Sub-total</b>					<b>244,000.00</b>	
Monitor two (2) CSIR projects	Facilitators	-	-	-	-	
	Conference package	6	32	50	9,600.00	
	Allowance/Per diem	6	32	250	48,000.00	

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
		Travel/fuel	2	16	1,000	32,000.00
		Accommodation	6	32	200	38,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				<b>128,000.00</b>
	Monitor two (2) GAEC projects	Facilitators	-	-	-	-
		Conference package	6	32	50	9,600.00
		Allowance/Per diem	6	32	250	48,000.00
		Travel/fuel	2	16	1,000	32,000.00
		Accommodation	6	32	200	38,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				<b>128,000.00</b>
	Monitor and evaluate the implementation of Incubation Centres/ Science and Technology Theme Parks	Facilitators	-	-	-	-
		Conference package	6	12	50	3,600.00
		Allowance/Per diem	6	12	250	18,000.00
		Travel/fuel	2	8	500	8,000.00
		Accommodation	6	12	200	14,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				<b>44,000.00</b>
	Monitor and evaluate the operationalizati on of the STI fund	Facilitators	-	-	-	-
		Conference package	6	20	50	6,000.00
		Allowance/Per diem	6	20	250	30,000.00
		Travel/fuel	2	8	500	8,000.00
		Accommodation	6	20	200	24,000.00
		Logistic	-	-	-	-

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
		<b>Sub-total</b>				<b>68,000.00</b>
	Monitor and evaluate the Ghana-South Africa TV White Space Project	Facilitators	-	-	-	-
		Conference package	6	12	50	3,600.00
		Allowance/Per diem	6	12	250	18,000.00
		Travel/fuel	2	8	250	4,000.00
		Accommodation	6	12	200	14,400.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the operationalisation of the National R&D Strategic Development Plan	Facilitators	-	-	-	-
		Conference package	6	3	50	900.00
		Allowance/Per diem	6	3	250	4,500.00
		Travel/fuel	2	2	250	1,000.00
		Accommodation	6	3	200	3,600.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
	Monitor the implementation of Phases 2 and 3 of the Action Plan on the use of local building materials in the construction industry	Facilitators	-	-	-	-
		Conference package	6	15	50	4,500.00
		Allowance/Per diem	6	15	250	22,500.00
		Travel/fuel	2	8	500	8,000.00
		Accommodation	6	14	200	16,800.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
					<b>Total</b>	<b>2,856,200</b>
					<b>Grand Total</b>	<b>3,889,400</b>



ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	M&E activities of CSIR	Facilitators	-	-	-	-
		Conference package	6	52	50	15,600.00
		Allowance/Per diem	6	208	250	312,000.00
		Travel/fuel	2	52	1,500	156,000.00
		Accommodation	6	208	200	249,600.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
					<b>CSIR Total</b>	<b>733,200</b>
	M&E activities of GAEC	Facilitators	-	-	-	-
		Conference package	6	60	50	18,000.00
		Allowance/Per diem	6	60	250	90,000.00
		Travel/fuel	2	15	1,000	30,000.00
		Accommodation	6	60	200	72,000.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
					<b>GAEC Total</b>	<b>210,000</b>
Environmental compliance monitoring and enforcement	Monitoring visits to companies/ mining industries/ hotels/ OMCs etc	Facilitators	-	-	-	-
		Conference package	-	-	-	-
		Allowance/Per diem	150	160	500	12,000,000.00
		Travel/fuel	1	1	10,000,000	10,000,000.00
		Accommodation	-	-	-	-
		Logistic	1	1	1,000,000	1,000,000.00
		<b>Sub-total</b>				

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
Monitoring of EPA infrastructure projects	Site visits and inspection	Facilitators	-	-	-	-
		Conference package	-	-	-	-
		Allowance/Per diem	11	120	150	198,000.00
		Travel/fuel	1	1	4,000,000	4,000,000.00
		Accommodation	-	-	-	-
		Logistic	1	1	500,000	500,000.00
		<b>Sub-total</b>				
Financial audit of EPA administrative units/departments/districts/regions	Financial and store audit	Facilitators	-	-	-	-
		Conference package	-	-	-	-
		Allowance/Per diem	5	50	150	37,500.00
		Travel/fuel	1	1	4,000,000	4,000,000.00
		Accommodation	-	-	-	-
		Logistic	1	1	200,000	200,000.00
		<b>Sub-total</b>				
				<b>EPA Total</b>	<b>31,935,500</b>	
M&E activities of TCPD		Facilitators	-	-	-	-
		Conference package	6	64	50	19,200.00
		Allowance/Per diem	6	64	250	96,000.00
		Travel/fuel	2	32	1,000	64,000.00
		Accommodation	6	64	200	76,800.00
		Logistic	-	-	-	-
		<b>Sub-total</b>				
				<b>TCPD Total</b>	<b>256,000</b>	
				<b>TOTAL</b>	<b>33,134,700</b>	

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)	
<b>Build M&amp;E Capacity</b>	Train five (5) PPME officers	Facilitators	-	-	-	-	
		Conference package	-	-	-	-	
		Allowance/Per diem	-	-	-	-	
		Tuition fees	5	4	800	<b>16,000.00</b>	
		Travel/fuel	-	-	-	-	
		Accommodation	-	-	-	-	
		Logistic	-	-	-	-	
		<b>Sub-total</b>					
	Provide refresher courses for three (3) officers to upgrade their M&E skills	Facilitators	-	-	-	-	
		Conference package	-	-	-	-	
		Allowance/Per diem	-	-	-	-	
		Tuition fees	3	2	4,850	<b>29,100.00</b>	
		Travel/fuel	-	-	-	-	
		Accommodation	-	-	-	-	
Logistic		-	-	-	-		
<b>Sub-total</b>							<b>29,100.00</b>
	Organise M&E training workshops for CSIR	Facilitators	2	2	2000	<b>8,000.00</b>	
		Conference package	30	2	30	<b>1,800.00</b>	
		Allowance/Per diem	30	2	200	<b>12,000.00</b>	
		Tuition fees	3	2	4,850	<b>29,100.00</b>	
		Travel/fuel	30	2	100	<b>6,000.00</b>	
		Accommodation	-	-	-	-	
		Logistic	30	2	40	<b>2,400.00</b>	
		<b>Sub-total</b>					

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
	Organise M&E training workshops for GAEC	Facilitators	2	2	250	1,000.00
		Conference package	30	2	30	1,800.00
		Allowance/Per diem				0.00
		Tuition fees				0.00
		Travel/fuel				0.00
		Accommodation	-	-	-	-
		Logistic	40	2	50	4,000.00
		<b>Sub-total</b>				
	Organise M&E training workshops for EPA	Facilitators	2	2	2000	8,000.00
		Conference package	30	2	30	1,800.00
		Allowance/Per diem	30	2	200	12,000.00
		Tuition fees	3	2	4,850	29,100.00
		Travel/fuel	30	2	100	6,000.00
		Accommodation	-	-	-	-
		Logistic	30	2	40	2,400.00
		<b>Sub-total</b>				
	Organise M&E training workshops for TCPD	Facilitators	2	2	2000	8,000.00
		Conference package	30	2	30	1,800.00
		Allowance/Per diem	30	2	200	12,000.00
		Tuition fees	3	2	4,850	29,100.00
		Travel/fuel	30	2	100	6,000.00
		Accommodation	-	-	-	-
		Logistic	30	2	40	2,400.00
		<b>Sub-total</b>				

ITEM	ACTIVITIES	INPUT	Qty / No. of People	Frequen cy	Unit Cost (GHC)	Amount (GHC)
					TOTAL	229,800.00
<b>OVERALL TOTAL</b>						<b>37,253,900.00</b>

## 2.7 How Data Will Be Collected And Collated

The M&E Units of the Sector shall be responsible for the collection of data by the Ministry itself, Agencies and Department and collaborating MDAs. Data collected shall be from both primary and secondary sources as indicated in the M&E matrix above. During data collection, the M&E Units shall decide on the instruments to use, where to apply each instrument, when to collect the data and how the data would be collected. The data would be gathered through the use of structured data collection instruments which include the use of templates, interview guides and questionnaires in interviews, focus group discussions etc.

The data would be collected on quarterly and annual basis. Data on projects/ programmes would be collected from the Ministry, its Agencies and Department through the submitted quarterly and Annual Progress Reports.

### Primary Data

Primary data would be collected through the routine quarterly monitoring and periodic Evaluations conducted by the Sector. The M&E Units shall produce M&E Reports for the monitoring undertaken. The Unit shall again undertake evaluations as detailed in the Section on Evaluations. Another source of primary data shall be the programmes & projects database. The data to be captured in this database would follow the programmes/projects register illustrated in **Table 2.7.1** below.

**Table 2.7.1 Programme/Project Register Format**

1.	Programme/Project Name	
2.	GSGDA II Thematic Area(s)	
3.	Sector Policy Objective	
4.	District	
5.	Project description	
6.	Expected Output/Outcome	
7.	Project location	
8.	Contractor or consultant	
9.	Budget, source and type of funding	
10.	Date started	
11.	Expected completion date	
12.	Contract sum	
13.	Expenditure to date	
14.	Project implementation status (include	

	videos and pictures if available)	
15.	Remarks	

### Secondary Data

Secondary data will be generated from monitoring reports, progress reports and evaluations undertaken by other collaborating MDAs, MMDAs, DPs and other organisations.

Table 2.7.2 is a matrix depicting the indicators, data collection period, data collection methods, data disaggregation and results.

**Table 2.7.2 Indicator Data Collection Matrix**

Indicator	Data Collection Period	Data Collection Methods	Data Disaggregation	Results

### 2.8 How Data Will Be Analysed And Used

Data collected from collaborating MDAs and MMDAs shall be collated by the Ministry. It would be cleaned with the objective of generating relevant data to inform policy formulation. Additionally, the analysed data could be used by NDPC and other Stakeholders. In this regard, a data validation workshop would be organized with stakeholders to reduce inconsistencies and enable the PPMED generate correct data.

Indeed, both qualitative and quantitative data will be subjected to analysis using modern data processing and analysis systems such as SPSS, MS Excel (Bar charts, Pie charts, Graphs etc.) to provide feedback to policy formulation. Additionally, other analytical tools would be applied to ascertain the outcomes and impacts of SMTDP and DMTDPs. Thus, the M&E data will be analysed and interpreted to highlight key areas of concern and lessons for feedback. This would be done to ensure that lessons learned can be fed into the next SMTDP.

### 2.9 How And When To Report On Findings

The PPME Directorate shall generate Monitoring Reports quarterly and annually such as the Annual Progress Report (APR). These reports will provide a brief of project implementation status, processes, performance as well as development outputs and outcomes. The reports would also provide conclusions for policy formulation.

Evaluation reports will also be prepared to determine the outcomes of policies and strategies in the SMTDP and its conformity with the **GSGDA II (2014-2017)**.

## **M&E Report Format**

The Quarterly, Mid-Year and Annual Progress Reports shall be produced using the format provided by NDPC M&E Guidelines.

### **2.10 Dissemination And Communication Strategies**

A number of communication strategies would be adopted to facilitate the dissemination and communication of the outcomes of the implementation of the sector's monitoring and evaluation plan.

The dissemination will highlight the successes chalked and the challenges faced in the implementation of the SMTDP in relation to the **GSGDA II**. Some of the strategies would include Meet the Press Fora, audio–visual documentaries through the electronic media, development of simplified versions of policies being pursued, flyers, internet publications, publications in the print media, radio and TV programmes through Education, Information and Communication process (EIC) etc. Community Fora/Durbars will also be organised to disseminate the M&E results.

Additionally, the PPME Directorate working with the Research, Statistics and Information Management Directorate shall target other collaborating stakeholders who will require strategies other than those mentioned above.

This will be in accordance with standard communication delivery methods such as:

- **Public Sensitisation** – reaching out to MMDAs, MDAs, NGOs, DPs, etc. with information on the Ministry's sector plan.
- **Media Advocacy** – talk shows, discussions and advocacy on policies, programmes and projects of the Ministry on radio /TV and adverts in the press.
- **Ministerial Lobbying** - identify informal influencers in key MDAs, Parliament, NGOs, CSOs, Traditional Authorities (TAs) and Development Partners (DPs).
- **Programmed communication** – running public relations programs on selected campaign themes during meetings and outreaches. (Information Communication Unit)

- **Events** – promoting the campaign objectives to external stakeholders during official and community events. Such events may include the following;

- Environmental Days celebration (World Environment Day, Biodiversity Day, Day to Combat Drought and Desertification, Wetland Days, World Water Day, World Ozone Day, etc...)
- Africa Scientific Renaissance Day celebration
- Review meetings with selected MDAs, MMDAs, Parliamentary Select Committee on MESTI and DPs.
- Web site.

## **2.11 Which Evaluations Will Be Done And How**

Evaluation is the objective assessment of ongoing or completed Policies, Programmes and/or Projects. It is also a process of determining systematically and objectively, the effectiveness, efficiency, relevance, sustainability and impacts of policies, programmes and projects in the light of their objectives. Evaluation can be conducted as ex-ante, mid-term, terminal or ex-post. In this regard, the policy objectives of the Sector as contained in the SMTDP will be evaluated to determine their relevance, impacts and sustainability. The outcome will provide feedback into policy formulation and implementation.

### **Evaluation Process**

The Sector shall use both quantitative and qualitative methods to conduct the evaluations. The following steps will be used in the evaluations with the assistance of a consultant:

1. Review the policy, programme or project documents.
2. Identify key issues to be addressed.
3. Assess the need for an evaluation
4. Define the purpose of the evaluation.
5. Identify and analyse stakeholders
6. Develop the evaluation questions.
7. Determine the type and scope of the evaluation.
8. Decide on the evaluation design and methods.
9. Prepare the evaluation work plan and budget
10. Prepare a follow up and utilisation action plan.



11. Prepare the evaluation Terms of Reference (TOR).
12. Recruit the evaluator (Individual Consultant, a team or Firm)
13. Determine data requirements and sources
14. Select Data analysis methods
15. Determine the reports to generate
16. Formulate a dissemination and communication strategy.

### **Specific Evaluations to be conducted**

In line with the MESTI-SMTDP and the GSGDA II, the Sector shall undertake the under-mentioned evaluations;

- i. Mid-term evaluation of the SMTDP
- ii. Ex-post evaluations of SMTDP
- iii. Mid-term and Ex-post evaluation of selected policies, programmes and projects.

Quality standards such as transparency, ethics, impartiality, timeliness, relevance and value for money should be considered by the consultants to ensure that the outcome of the evaluation meets international standards.

### **2.12 How Participatory Monitoring and Evaluation Will Be Done**

Participatory Monitoring and Evaluation (PM&E) will be undertaken mainly in the natural resource management programmes (mining areas, coastal and oil belts, etc.), agricultural/farming communities and the private sector. This will require building the capacity of the relevant communities to equip them with the requisite skills to undertake regular Participatory M&E.

PPMED shall embark on PM&E to capture perceptions and assess whether interventions contained in the SMTDP met expectations of all stakeholders, especially at the local level where the poor and vulnerable can be identified. Awareness would also be created among all stakeholders and beneficiaries of the sector's interventions. The PPMED will promote partnership between the Private Sector, NGOs and CSOs to facilitate the roll out of PM&E in the Sector.

### **Participatory M&E Methods**

PM&E methods recognize the importance of local knowledge in conserving the environment, adaptation and use of Science, Technology and Innovation to promote community development. They provide the enabling environment that deepens community

consultation and participation, empowerment and improved public accountability. As a result, the PPMED will roll out the Citizen Driven Accountability (CDA) as a means of promoting and implementing PM&E in the Sector. The aim is to improve on information provision for strategic planning at all levels.

The tools to be used to establish an efficient monitoring system to track all activities and ensure Citizen Driven Accountability will include the under listed, among others;

- Community score cards
- Use of ICT and mobile phones, to build the relationship between service providers and the user community
- Establish a Grievance Redress Mechanism
- Focus group discussions

#### **Participatory M&E Procedures**

The Ministry would use the following procedures to conduct the PM&E.

- i. Establish the need for PM&E
- ii. Decide on the PM&E tool(s) to use
- iii. Identify the key stakeholders
- iv. Identify a lead facilitator
- v. Determine the performance questions
- vi. Establish the resources and time available
- vii. Define a TOR for the lead Facilitator or Consultant
- viii. Train the team to carry out the PM&E
- ix. Disseminate the results and act on the findings and recommendations.

## **CHAPTER 3: OTHER ISSUES OF RELEVANCE TO M&E**

### **3.1 Risks and Risk-Management**

This section discusses important conditions, decisions and events outside the control of the project, which may either positively or negatively affect the realization of policy/programme/project objectives.

The following are the risks associated with the implementation of the Sector Monitoring and Evaluation Plan (2014-2017).

1. Inadequate human, institutional and financial capacity to undertake monitoring and evaluation
2. Poor enforcement of environmental rules and regulations/ procedures
3. Major unexpected environmental disasters that will call for emergency responses
4. Low staff motivation and high staff turnover.

### **3.2 Assumptions**

The most critical assumption underlying the M&E Plan is that adequate financial and human resources, as well as logistics for carrying out the various tasks will be released in a timely manner.

The second important assumption is that the required capacity development in management, coordination, implementation and monitoring within the PPME Directorate of the Ministry in particular and the Sector as a whole will be carried out for key staff.

The third key assumption is that the necessary leadership and direction required for undertaking the various activities/programmes will be provided.

The effective implementation of the Sector M&E plan is also based on the assumption that there is an enabling environment and the political will to implement the Sector's policies, programmes and projects.

It is also assumed that citizens and businesses will be encouraged to utilize results of research findings and home-grown technologies.

Another key assumption is that information management systems will be installed, and updated regularly and accurately.

## **CHAPTER 4: CONCLUSION**

The Sector has been receiving funds from the Ministry of Finance year after year for the implementation of Policies, Projects and Programmes towards the sustainable management of the environment. Sustainable environmental management invariably will lead to an enhanced economy that will transform the wellbeing and welfare of the society in general.

Ensuring that the funds are used for interventions geared toward sustainable environmental management and development is the challenge that faces the government and in particular the Sector. In this regard, the Sector M&E Plan has been developed to track implementation of policies, projects and programmes based on their identified outputs and outcomes to generate data and information that will inform policy review and formulation.

This is the context within which the Sector M&E Plan will function. The success or otherwise of the implementation of the Sector M&E will be assessed against this background.

## ANNEX

### Glossary of M&E Concepts and Terms in the Sector M&E Plan

Glossary of M&E Concepts and Terms in the Sector M&E Plan	
<b>A</b>	
<b>Accountability</b>	Obligation of government, public services or funding agencies to demonstrate to citizens that contracted work has been conducted in compliance with agreed rules and standards or to report fairly and accurately on performance results vis-à-vis mandated roles and/or plans. This may require a careful, even legally defensible, demonstration that the work is consistent with the contract terms. Projects commonly focus on upward accountability to the funding agency, while downward accountability involves making accounts and plans transparent to the primary stakeholders. Ensuring accountability is one part of the function of monitoring and evaluation (learning and management are the other two).
<b>Activity</b>	Actions taken or work performed in a project to produce specific outputs by using inputs, such as funds, technical assistance and other types of resources.
<b>B</b>	
<b>Baseline information</b>	Information – usually consisting of facts and figures collected at the initial stages of a project – that provides a basis for measuring progress in achieving project objectives and outputs.
<b>Benchmark</b>	Reference point or standard against which performance or achievements can be compared. A benchmark might refer to what has been achieved in the past, by other comparable organisations, or what could reasonably have been achieved under the circumstances.
<b>E</b>	
<b>Effectiveness</b>	A measure of the extent to which a project attains its objectives at the goal or purpose level; i.e. the extent to which a development intervention has attained, or is expected to attain, its relevant objectives efficiently and in a sustainable way.
<b>Efficiency</b>	A measure of how economically inputs (funds, expertise, time, etc.) are converted into outputs.
<b>Evaluation</b>	A systematic (and as objective as possible) examination of a planned, ongoing or completed project. It aims to answer specific management questions and to judge the overall value of an endeavour and supply lessons learned to improve future actions, planning and decision-making. Evaluations commonly seek to determine the efficiency, effectiveness, impact, sustainability and the relevance of the project or organisation's objectives. An evaluation should provide information that is credible and useful, offering concrete lessons learned to help partners and funding agencies make decisions.
<b>G</b>	
<b>Goal</b>	The higher-order programme or sector objective to which a development intervention, such as a project, is intended to contribute. Thus it is a statement of intent.
<b>I</b>	

<b>Impact</b>	The changes in the lives of people, as perceived by them and their partners at the time of evaluation, plus sustainability-enhancing change in their environment to which the project has contributed. Changes can be positive or negative, intended or unintended
<b>Indicator</b>	Quantitative or qualitative factor or variable that provides a simple and reliable basis for assessing achievement, change or performance. A unit of information measured over time that can help show changes in a specific condition. A given goal or objective can have multiple indicators.
<b>Information management system</b>	A system of inputting, collating and organising data that should provide selective data and reports to assist in monitoring and controlling the project organisation, resources, activities and results.
<b>Input</b>	The financial, human and material resources necessary to produce the intended outputs of a project.
<b>M</b>	
<b>Mid-term evaluation</b>	An external evaluation performed towards the middle of the period of implementation of the project, whose principal goal is to draw conclusions for reorienting the project strategy.
<b>Monitoring</b>	The regular collection and analysis of information to assist timely decision making, ensure accountability and provide the basis for evaluation and learning. It is a continuing function that uses methodical collection of data to provide management and the main stakeholders of an ongoing project or programme with early indications of progress and achievement of objectives.
<b>M&amp;E matrix</b>	A table describing the performance questions, information gathering requirements (including indicators), reflection and review events with stakeholders, and resources and activities required to implement a functional M&E system. This matrix lists how data will be collected, when, by whom and where.
<b>O</b>	
<b>Objective</b>	A specific statement detailing the desired accomplishments or outcomes of a project at different levels (short to long term). A good objective meets the criteria of being impact oriented, measurable, time limited, specific and practical.
<b>Outcome</b>	The results achieved at the level of "purpose" in the objective hierarchy.
<b>Outputs</b>	The tangible (easily measurable, practical), immediate and intended results to be produced through sound management of the agreed inputs. Examples of outputs include goods, services or infrastructure produced by a project and meant to help realise its purpose.
<b>P</b>	
<b>Participation</b>	One or more processes in which an individual (or group) takes part in specific decision-making and action, and over which s/he may exercise specific controls. It is often used to refer specifically to processes in which primary stakeholders take an active part in planning and decision-making, implementation, learning and evaluation. This often has the intention of sharing control over the resources generated and responsibility for their future use.

<b>Participatory Monitoring and evaluation</b>	A broad term for the involvement of primary and other stakeholders in monitoring and evaluation.
<b>S</b>	
<b>Stakeholders</b>	Stakeholders are groups or individuals involved, concerned or impacted positively or negatively in programmes and projects implementation
<b>T</b>	
<b>Target</b>	A specified objective that indicates the number, timing and location of that which is to be realised.
<b>V</b>	
<b>Validity</b>	The extent to which something is reliable and actually measures up to or makes a correct claim. This includes data collection strategies and instruments.
<b>Validation</b>	The process of cross-checking to ensure that the data obtained from one monitoring method are confirmed by the data obtained from a different method.