

# **Budget Tracking Tool Expert for Pilot Program for Climate Resilience (Phase II)**

## **Final Report: Consolidated Report**

April 2016



Building a better  
working world



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12 April 2016

Mrs. Doreen Bwalya  
Ministry of Finance, Interim National Climate Change Secretariat  
Plot 90 Corner Makishi/Broads Roads  
Fairview Area, Lusaka

Dear Madam,

**Subject: Updated Budget Tracking Tool for Climate Change Programmes**

Following the validation meeting held on 11<sup>th</sup> March 2016, EY is pleased to submit to you the final consolidated report for Budget Tracking Tool Expert for Pilot Program for Climate Resilience (Phase II), Project Reference P127254

During the project we held meetings with various key stakeholders including Ministry officials to identify climate change programmes, gather data required to update the budget tracking tool and to update the budget tracking tool.

Our report is structured in three parts as follows:

Section A: Budget Analysis for national climate change programmes

Section B: Budget Tracking Tool Report

Section C: Budget Tracking Tool (Excel)

Section D: Business Case for Budget Tracking Tool for monitoring climate change funds using existing GRZ systems

We have provided the attached report, which is the final deliverable report of the project, to provide background to the how the tracking tool was developed and recommendations for implementing the tracking tool to ensure sustainability that were raised during the validation workshop.

Our project team comprised of the following:

S/N	Name	Role
1.	Mitch Khalpey	Project Director
2.	Denford Bhunu	Team Leader
3.	Joseph Mugwagwa	PFM Expert

Yours sincerely,

Mitch Khalpey  
Director, Ernst & Young Advisory Services (Pvt) Limited

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## Abbreviations

<b>CDM</b>	Clean Development Mechanism
<b>ENRMMP</b>	Environmental and Natural Resources Management, and Mainstreaming Programme
<b>GRZ</b>	Government of Republic of Zambia
<b>IFMIS</b>	Integrated Financial Management Information System
<b>NLTV</b>	National Long Term Vision
<b>NCCRS</b>	National Climate Change Response Strategy
<b>RSNDP</b>	Revised Sixth National Development Plan
<b>REDD</b>	Reducing Emissions from Deforestation and forest Degradation
<b>PFM</b>	Public Financial Management
<b>UNFCC</b>	United Nations Framework Convention on Climate Change

## **Section A – Budget Analysis**

## 1.1. Executive summary

### Objectives of the Report

The main purpose of this assignment is to carry out a detailed analysis of the national budget with a view to analyse how Government budget allocations to climate resilience development are allocated and utilised.

More specifically, the EY team have set out to:

1. Review and update the current tracking tool for consistency in what constitute a climate resilience allocations, assess the adequacy of the tracking tool and recommend improvements;
2. Analyse and track sector programme budgets (Environment and Natural Resources, Health, Energy, Transport and Infrastructure, Tourism and Agriculture (livestock, fisheries and crops) and disbursements related to climate change in the 2013 and 2014 national budgets; and
3. Prepare a standardized appropriate survey tool for monitoring and tracking final resource use against proposed development goal.

Pursuant to this, EY was contracted by the Ministry of Finance Interim Climate Change Secretariat to improve and update the current budget tracking tool that will enable the Government to monitor climate relevant expenditure.

Our approach to undertaking budget analysis for climate change programmes involved meeting with officials from the relevant Ministries, Departments and Agencies to ascertain the following;

- ▶ Whether spending was relevant or not relevant to climate change;
- ▶ Whether the identified expenditure was of high, medium or low relevance to climate change;
- ▶ What percentage weighting could be assigned to each item of expenditure; and
- ▶ Whether the expenditure was focused on adaptation or mitigation impacts.

### Climate Finance Delivery in Zambia

This Budget Analysis provides a first attempt at estimating climate change relevant expenditures that appear in the national budget (Yellow Book) of Zambia over the period 2013 – 2014. Climate change relevant expenditure has increased as a proportion of the total budget from 8 percent in 2013 to 12 percent in 2015. This growth in budget for climate change relevant activities has been driven by an increase in donor funding that is on-budget.

The 2010 National Climate Change Strategy represents a significant milestone, but it needs to be further strengthened to include:

- (i) The identification of priority programmes;
- (ii) Their budgeted costs; and
- (iii) The expected sources of funding.

## Public Expenditure on climate change relevant actions, 2013 – 2015

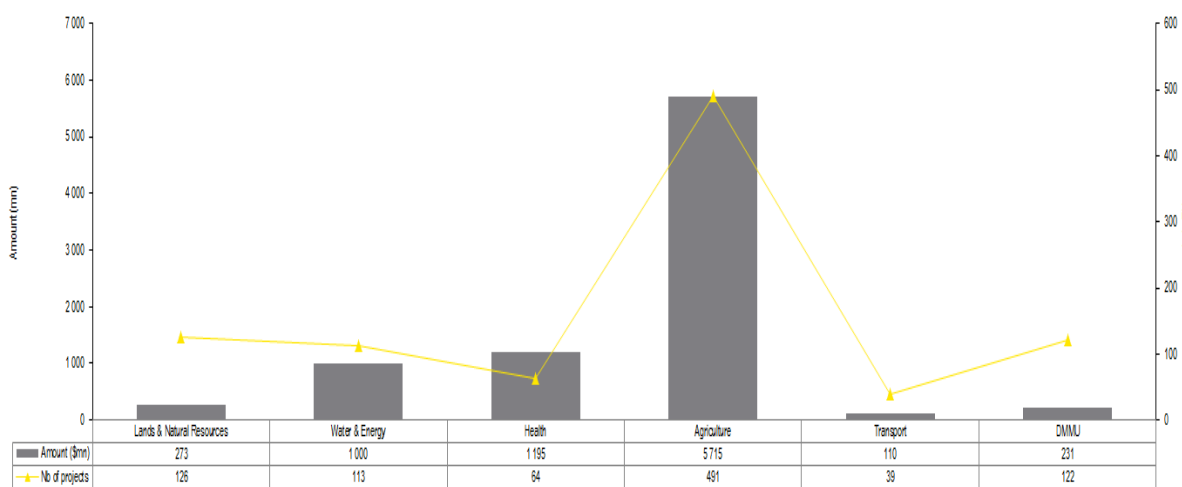
Zambia’s budgeted amount for climate change-relevant activities grew from ZMW 2.57 bn in 2013 to ZMW 5.399 bn in 2015. This represents growth of 109% in three years.

	Approved Budget		
	2013 ZMW (Mill)	2014 ZMW (Mill)	2015 ZMW (Mill)
Total budget for climate change-relevant activities	2 577	5 291	5 399
Total Budget	32 212	42 682	46 667
<b>Share of total budget (%)</b>	<b>8%</b>	<b>12%</b>	<b>12%</b>

The budget analysis of climate change resilience programmes suggests that the greatest climate change resilience focus is currently on the Agriculture sector (which makes sense, given that a large proportion of the population rely on Agriculture for their livelihoods). Agriculture is central to Zambia’s efforts to respond to climate change and for economic growth. The agricultural sector is a core element of the Revised Sixth National Development Plan (RSNDP) covering the period 2011 to 2015, and the National Long Term Vision (NLTV) of Zambia that extends to 2030 which notes that the development of agriculture is the “engine of income expansion in the economy”. The National Climate Change Response Strategy (NCCRS) also prioritised agriculture as a key sector.

Lands and Natural Resources is another key focus area, with relatively large value per programme. This is primarily due to the Environmental and Natural Resources Management, and Mainstreaming Programme (ENRMMP), initiated in 2008, which seeks to improve coordination and implementation capacity in the environment and natural resource sector in Zambia.

DMMU is emerging as a department with a significant climate change relevant programmes focused on adaptation.



However, there is a considerable amount of spending taking place in Line Ministries without the full realisation of the significance of such spending in relation to meeting climate change objectives.

## 1.2. Introduction

Climate change is a new area of public policy and is expected to have a significant impact on national economic development and directly on people's lives and livelihoods. However, at present there is limited understanding of budgetary implications of climate change.

An important starting point is to identify the financial resources that are currently being spent by government to fund climate change-related activities. This can provide an indication of how far the national response to climate change has evolved. Looking forward, the expected rapid growth of this expenditure will raise governance and management challenges for implementing ministries, department and agencies, which should be considered in the design and execution of national climate change programmes and national systems to account for funds allocated to the programmes.

At the international level, the UNFCCC intends to reach an agreement with all countries that will avoid the most dangerous impacts of global warming. An important component of the international response is to provide new and additional finance to support actions carried out within the world's vulnerable countries. This is recognised in the goal set by the international community to raise USD 100 billion per year by 2020 for climate change initiatives. International support is already forthcoming to assist countries such as Zambia prepare for and respond to climate change, but this source of funding raises questions of sustainability and how such support should be channelled into national systems. There is also the question of how to prioritise spending of finite financial resources. Budgetary allocations are never sufficient to meet all public spending needs, making a consideration of the strength of the systems that manage climate change-relevant expenditures important.

Measuring the effectiveness of public spending on climate change actions is fraught with difficulties, due to the definitional ambiguity of such actions (Burton, 2004), the complexity of public funding flows, and a lack of clarity on what effectiveness actually means. There are a number of further challenges to be faced: there is generally limited information on actual expenditures (as opposed to budget estimates); the national budget classification can act as a barrier to the interpretation of climate change actions; and a significant amount of international funding does not pass through the national budget.

So, at present the Zambian Government and the international community do not have good ways of measuring public flows of climate finance, or of promoting effective practice in the allocation of public funds to climate change-related actions. This study aims to address both these constraints, by identifying relevant public expenditure and measuring the effectiveness of such spending against an explicit assessment framework.

### Objectives of the study

The primary objective of this study is to review public spending on activities that are related to climate change, and to identify climate change budgets, programmes and activities in the key sectors impacted by climate change. This assessment is intended to show how climate change-relevant expenditure passes through the Zambia's budgetary systems in response to national policy setting.

The expenditure analysis quantifies climate change relevant expenditures in the national budget, as well as through other funding channels. This is done by selecting activities, projects and programmes that are recognised as being part of the national response to climate change and then extracting the budget estimates and actual expenditures from the budget documentation.



### 1.3. Budget Analysis Methodology

This chapter outlines the approach the EY team adopted to identify and classify climate change-relevant public expenditure in Zambia. Overall, the methodology sought to classify relevant public expenditure and involved meeting with officials from the relevant Ministries and Departments to ascertain the following;

- ▶ Whether spending was relevant or not relevant to climate change;
- ▶ Whether the identified expenditure was of high, medium or low relevance to climate change;
- ▶ What percentage weighting could be assigned to each item of expenditure; and
- ▶ Whether the expenditure was focused on adaptation or mitigation impacts.

In undertaking the budget analysis, it was important to acknowledge that expenditure on climate change can come from a variety of sources. These may include:

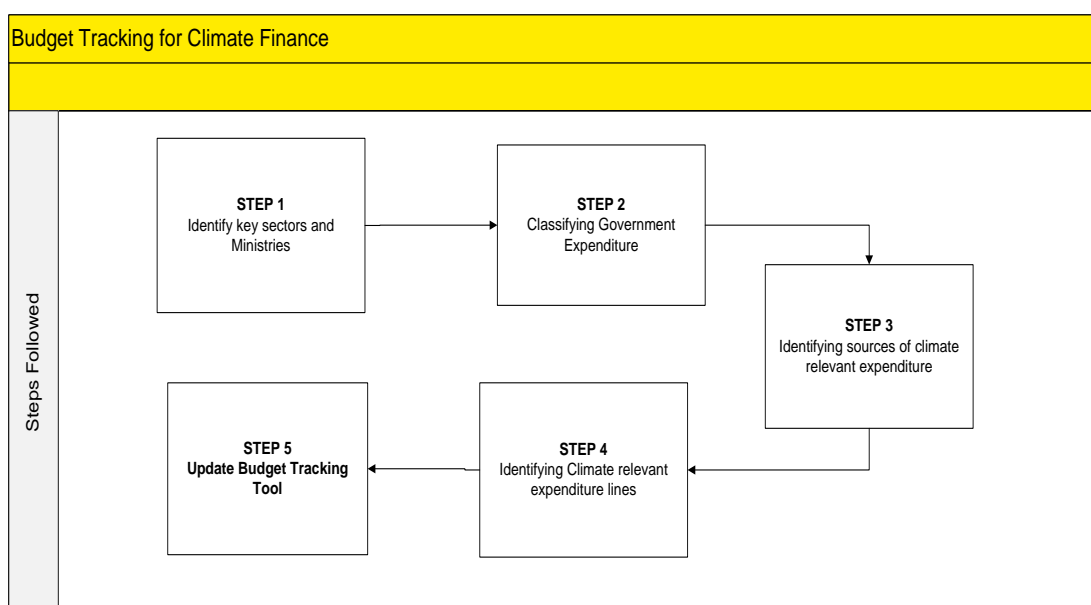
- ▶ International climate funds;
- ▶ Bilateral and multilateral donor funds;
- ▶ Public funds; and
- ▶ Private sector funds.

The updated budget tracking tool was used to carry out the budget analysis as it contains GRZ programmes for climate resilience. The budget tracking tool captures climate change resilience programmes by Sector, Programme, Activity level and contains the following information:

- Approved Budgets
- Funding, and
- Actual Expenditure

The budget analysis focuses on funding allocated to finance climate change actions through the national budget, as such spending is most closely aligned with national policy setting and institutional arrangements. A number of steps were followed in undertaking the budget analysis. These steps are outlined in the diagram below.

**Diagram 1.1: Budget Analysis Methodology**



## Identifying key sectors and Ministries

The National Adaptation Programme on Action (NAPA) identified six sectors as being most relevant to climate change in Zambia. Although the exact impacts of climate change in Zambia remain uncertain, based on experience in other countries and extrapolations from existing models, the likely impacts of climate change across these sectors are listed in Table 1.1.

**Table 1.1: Anticipated impacts of climate change on key sectors in Zambia**

	Sector	Example of climate change impact
1	Agriculture & Food Security	Changes to crop, livestock and fisheries production levels; losses caused by catastrophic events
2	Human Health Sector	Increase in climate-related disease incidence
3	Water & Energy Sector	Changes in water quantity and quality; greater water demand  Changes in demand levels; hydro-electricity supply weakened by changing river flows/lake levels
4	Natural Resources – Wildlife and Forest Sector	Wildlife habitats have been affected by climatic hazards such as droughts through changes in rangelands.
5	Transport Sector	Physical damage to existing infrastructure; higher maintenance costs
6	Tourism Sector	Potential increases in transportation costs; damage to key tourist areas and natural heritage

Following the identification of these six sectors from the NAPA document, the analysis then related the findings to those Ministries mostly likely to be active in the sectors. In common with budgeting systems across the world, budgets are allocated administratively in Zambia on the basis of an individual Ministry or other institution, rather than by sector. As a result, identification of spending lines needed to be done on an institution-by-institution basis.

The six Ministries and Departments where the EY team then sought out and identified specific items of climate change-relevant expenditure are shown below in Table 1.2.

**Table 1.2: Ministries where climate change-relevant expenditures were identified, 2013 – 2015**

	Sector
1	Vice Presidents Office – Disaster Management Mitigation Unit
2	Ministry of Agriculture and Livestock
3	Ministry of Mines, Energy and Water Development
4	Ministry of Lands, Natural Resources and Environmental Protection
5	Ministry of Transport
6	Ministry of Health

## Identifying climate relevant expenditure lines

Once the relevant Ministries were identified, the analysis moved to a detailed review of the individual expenditure lines within each Ministry's development budget. The Government of Zambia uses a budget system with several layers of information. All expenditure items are coded to express a number of categories that help identify the nature of individual expenditures, including categorisation of expenditures by Ministry, by department and by economic function.

The EY team obtained Yellow Books for each period under review, met with officials from each Ministry and then began a process of reviewing programmes in terms of their relevance to climate change.

The GRZ Chart of Accounts codes accompanying the budget lines were used to identify the type of expenditure. However, the Chart of Accounts does not contain a marker or code for 'climate change relevant' expenditure that would allow for a straightforward exercise in simply extracting from the budget all expenditure lines with that code. As a result, a manual review of all potentially relevant expenditure was necessary.

Descriptive information provided in the individual expenditure lines was often sufficient to exclude items from the analysis. The description of certain programmes in the budget documents was usually very brief, for example 'Administration' or 'Rural water and sanitation'. It was relatively easy for the team to review and exclude certain items from the expenditure analysis on the basis that they were not related to climate change, for example, expenditure on 'International subscriptions'. Certain expenditure items were clearly relevant to climate change adaptation or mitigation (e.g. 'Hydropower construction'), whereas others were less clear (e.g. 'capacity building in the Ministry of Agriculture').

The budget analysis took a 'prioritised' approach to identifying climate change-relevant expenditure and does not exhaustively review each and every expenditure item within the national budget.

Given the limitations of time, it was not possible to review every GRZ expenditure line item. The methodology began by identifying those sectors most likely to be related to climate change, and then drilled down into the details of sector financing in order to identify and categorise expenditure.

As a result, there remains a risk – albeit a small one – that climate change-relevant activities are being undertaken by agencies in sectors considered generally less relevant to climate change (for example, in the defence sector), and that these are being missed by the analysis.

The judgement of the review team is that this risk is small, and any climate change-relevant activity that is being undertaken in a ministry not included in the priority list is unlikely to affect the overall conclusions of the analysis.

## Allocating high, medium and low relevance to identified expenditures

Once a relevant expenditure was identified in each Ministry, it was assessed for its relevance to climate change. This process took into account that most public expenditure has more than one objective. Some programmes have a clear focus on climate change adaptation or mitigation, where the stated primary objective of the expenditure is to deliver specific outcomes that are climate change-related. These were considered highly relevant climate change expenditure items.

Medium relevant expenditure items are those projects and programmes that have a secondary objective relating to climate change adaptation and/or mitigation outcomes, but where the primary focus of the expenditure lies elsewhere.

The third category of the classification is low relevant expenditure that supports activities that display attributes where indirect adaptation and mitigation benefits may arise. This third category attempts to identify actions where although there was no intention to respond to climate change, the outcome of the expenditure leads to greater adaptation or mitigation capacity.

Table 1.3 sets out the definitions used in allocating expenditure lines into high, medium or low relevance categories, using experience gathered from previous studies and building on the national experience of responding to climate change and the actions likely to be part of the country's response. The list of proposed actions described within the National Climate Change Response Strategy (NCCRS), and elaborated in the implementation strategy, provided much additional guidance. The EY team also drew upon the expertise of government officials in drawing up sector specific lists to guide the identification of relevant actions.

**Table 1.3: Definitions for allocating climate change relevance weightings**

Relevance	Definition	Examples of projects and programmes
<b>High</b>	Clear primary objective of delivering specific outcomes that improve climate resilience or contribute to mitigation.	<ul style="list-style-type: none"> <li>▶ Energy mitigation (e.g. renewables, energy efficiency);</li> <li>▶ The additional costs of changing the design of a programme to improve climate resilience (e.g. extra costs of climate proofing infrastructure, beyond routine maintenance or rehabilitation);</li> <li>▶ Healthcare for climate sensitive diseases;</li> <li>▶ Building institutional capacity to plan and manage climate change, including early warning and monitoring;</li> <li>▶ Raising awareness about climate change; and</li> <li>▶ Anything meeting the criteria of climate change funds (e.g. GEF, PPCR).</li> </ul>
<b>Medium</b>	Either (i) secondary objectives related to building climate resilience or contributing to mitigation, or (ii) mixed programmes with a range of activities that are not easily separated but include at least some that promote climate resilience or mitigation.	<ul style="list-style-type: none"> <li>▶ Forestry and agroforestry that is motivated primarily by economic or conservation objectives, because this will have some mitigation effect;</li> <li>▶ Water storage, water efficiency and irrigation that is motivated primarily by improved livelihoods because this will also provide protection against drought; and</li> <li>▶ Bio-diversity and conservation, unless explicitly aimed at increasing resilience of ecosystems to climate change (or mitigation).</li> </ul>
<b>Low</b>	Activities that display attributes where indirect adaptation and mitigation benefits may arise	<ul style="list-style-type: none"> <li>▶ General livelihoods, motivated by poverty reduction, but building household reserves and assets and reducing vulnerability in areas of low climate <i>change vulnerability</i>;</li> <li>▶ <i>General planning</i> capacity; and</li> <li>▶ Livelihood and social protection programmes, motivated by poverty reduction, but building household reserves and assets and reducing vulnerability.</li> </ul>

## Classifying Adaptation and Mitigation projects

Mitigation and adaptation are the two main categories for climate change activities and all expenditure items in this review are classified between them. There are conceptual differences between an expenditure that aims to help institutions, systems and communities adapt to the realities of a changing climate; and those that seek to reduce the change in the climate itself by mitigating the impacts of human activity. Therefore, understanding the relevant balance of climate-related activities between these two policy objectives provides important information on the nature of the Zambian government's response to the public policy challenge of climate change.

Defining expenditures as 'mitigation' compared to 'adaptation' again requires expert judgement. In a similar way to the classification on relevance, allocation into a mitigation or adaptation category cannot be externally and objectively determined. Once again, where information in the budget documentation was insufficient to make a determination, further investigation was undertaken through additional budget documentation and/or direct contact with the Ministry concerned.

### Definitions of mitigation and adaptation

Category	Definition
<b>Mitigation</b>	Efforts that seek to prevent or slow down the increase of atmospheric GHG concentrations by limiting current and future emissions and enhancing potential sinks for greenhouse gases.
<b>Adaptation</b>	Adaptation to global warming refers to actions aimed at coping with climatic changes that cannot be avoided and at reducing their negative effects.  Adaptation measures include the prevention, tolerance or sharing of losses, changes in land use or activities, changes of location and restoration.

*Source: Zambia National Climate Change Response Strategy*

## 1.4. Sources of Climate Finance

Several national initiatives have been undertaken at the strategy level: the 2007 National Adaptation Programme of Action; the 2012 National Climate Change Response Strategy; and the Zambia REDD+ strategy; all of which received strong development partner support. Climate change is also now recognized as a challenge to national development within the current Revised Sixth National Development Plan.

A number of studies have indicated that Zambia has been successful in accessing some of the dedicated climate finance available from the public and the private portfolios. These reports include:

- Understanding Climate Finance Readiness in Zambia;
- ODI Climate Finance Readiness Report for Southern Africa, 2012; and
- National Climate Change Response Strategy, (NCCRS).

However, tracking climate finance inflows is very complicated for a number of reasons, which include

- ▶ poor alignment of international sources with national development objectives;
- ▶ fragmented policies and procedures on climate change management;
- ▶ knowledge management issues and oversights in the national budget process; and
- ▶ Failure to code and track climate change funds in the IFMIS.

## Funding Sources for Climate Finance

Funding sources identified in the NCCRS include the following:

- 1. The GRZ national budget:** The mainstreaming of climate change risks into the development agenda (e.g. the RSNBP and annual work plans) can influence budget allocation in a way that results in more funds being availed for climate change activities. Through such measures, the GRZ budget can provide leverage for securing additional funding from external sources, especially in situations where the government can co-finance climate change projects.
- 2. Dedicated additional climate funding from bilateral and multilateral sources:** These are also optional sources of funding from additional sources of external climate change financing for both adaptation and mitigation activities.
- 3. Private sector finance and Foreign Direct Investments (FDI):** The energy sector and renewable energy, as well as the forestry sector, may for a large share come from the private sector. These funding sources can be supplemented by additional grants or soft loans from Multilateral Finance Institutions (MFIs). The involvement of the private sector may also be promoted through public private partnerships (PPP's).
- 4. Funding from carbon markets:** Funding can also be secured for mitigation from market based mechanisms such as the Clean Development Mechanism (CDM) or its future successor, REDD+ and voluntary carbon market schemes.

## Dedicated Climate Change Funding

Table 1.4 below, provides an existing list of projects and funding from Bilateral and Multilateral agencies that contribute towards climate change programmes in Zambia.

**Table 1.4: Composition of Dedicated Public Climate Finance inflows Committed (US\$ million)**

Project Name	Support	Financial Support in US\$	Period	Project Status
<b>USAID</b>				
Community-based Forest Management Project (CFP)	Cooperative Agreement with local organization	14 000 000	2014 –2019	Active - Year 1
Various Incentive-based Grant Opportunities and Rewards (VIGOR)	Fixed Obligation Grant (milestone based)	500 000	2013-2014	Closed
Government to Government	Direct government support through Ministry of Finance to Ministry of Lands	195 959	2013-2014	Ongoing
Nyimba Forest Project	Agreement with international research organization	3 021 174	2012 -2014	No cost extension until December, 2014
Phase II VIGOR small grants to local organizations	Fixed Obligation Grant (milestone based)	800 000	2014 –2016	Procurement underway; tender not yet out.
<b>AfDB</b>				
Lake Tanganyika Development Project	Loan and grant to GRZ	25 000 000	2015 –2019	Board 2014
Strengthening Climate Resilience in the Kafue Basin	Loan and grant to GRZ	37 500 000	2014-2019	Active 2014
Cashewnut development Project	Loan to GRZ		2015-2021	Pipeline
Wildlife Management in Game Management areas (GMAS), Wildlife Estates (game ranching)	Loan to GRZ	45 000 000	2015-2020	Pipeline

Project Name	Support	Financial Support in US\$	Period	Project Status
<b>Norway</b>				
COMACO III		11 000 000	2014-2018	On going
Empowering Women in Senanga and Gwembe Districts Through Agricultural Support.		1 000 000	2012-2015	On going
Expanded Food Security Pack.		14 000 000	2012-2015	On going
Conservation Farming Phase II.		27 000 000	2011-2015	On going
COMESA EAC-SADC Tripartite Climate Change Program.		18 000 000	2011-2016	On going
Regional Program Conservation Farming		20 000 000	2011-2015	On going
UN REDD	4 500 000 (not all is Norwegian Funding)	4 500 000	2010-2013 and no cost extension to Dec 2014	On going
<b>Finland</b>				
Integrated Land-Use Assessment phase II	Support through FAO who are managing project	Euro 2 000 000	2014-2015	Ongoing
Decentralised Forest and other Natural Resources Management Programme - Introduction Project	Bilateral Agreement with MoFNP but financial support through a Service Provider	Euro 4 500 000	2014-2017	Commencing October 2014
Support to Civil Society in Environmental Management	Support through a Service Provider managing the project	Euro 4 617 000	2014-2018	Commencing December 2014
Environment and Natural Resources Management and Mainstreaming Programme	Bilateral Agreement with Government	Euro 9,000,000	2009-2013	3 projects funded under Interim Environment Fund continue up to 2015, though programme closed 2013
Energy and Environment Partnership Programme (EEP) II	Jointly Donors fund through a Service Provider to Companies/ Organisations	Euro 35,500,000	2010-2017	On-going regional programme and is in the 2nd phase. 10 projects funded in Zambia so far



Project Name	Support	Financial Support in US\$	Period	Project Status
<b>UNDP</b>				
UN Joint programme on Climate Change & Disaster Risk Reduction.	Jointly funds from various UN agencies	16 150 056	2012-2015	
China Zambia South South Renewable Energy Technology Transfer Project	Danish Government	2 624 400	2015-2018	Project document signed and launched in September 2014. Steering Committee has been put in place.
Small Grants To NGOS/CBOS For Enhancement Of Community Capacities In The Environmental Protection And Natural Resources Management In Areas Surrounding The Kafue And West Lunga National Parks	Danish Government	1 000 000	2012-2014	Ongoing
Strengthening Climate Information And Early Warning Systems In Eastern And Southern Africa For Climate Resilient Development And Adaptation To Climate Change – Zambia			2013-2017	Procurement of weather station and training officers and community.
Strengthening Management Effectiveness And Generating Multiple Environmental Benefits Within And Around Protected Areas In Zambia	GEF	16 188 864	2014-2018	Job descriptions have been developed. ZAWA and Forestry Department liaising on joint modalities for recruitment. Consensus has been reached and advertising will commence in the 4th quarter. Procurement has been of vehicles and computers completed
Adaptation To The Effects Of Drought And Climate Change In Agro-Ecological Regions I And II In Zambia	GEF	3 970 000	2012-2015	Ongoing

Project Name	Support	Financial Support in US\$	Period	Project Status
<b>UNDP</b>				
Reducing UPOPs and Mercury Releases from the Health Sector in Africa		8 214 000	2015-2018	The project document submitted to GEF secretariat for approval
Promoting Climate Resilient Community-Based Regeneration Of Indigenous Forests In Zambia's Central Province	GEF-LCDF	100 000	2014-2015	Draft project document submitted for review by stakeholders
<b>World Bank</b>				
Community markets for conservation (COMACO) landscape management Project		1 300 000	2014-2019	
Zambia Integrated Forest Landscapes Program to be supported by the BioCarbon Fund Initiative for Sustainable Forest Landscape (BioCF ISFL) Initiative	BCF	40 000 000	2015-2030	
Zambia: Strengthening Climate Resilience in the Barotse Sub-Basin (PPCR Phase II) Project		36 000 000	2013-2019	Ongoing
Zambia - Mining and Environmental Remediation and Improvement Project		50 000 000	2017-2023	In preparation
Zambia Forest Investment Programme		250 000	2016-2017	In preparation

## 1.5. Budget Analysis of Climate Change Relevant Programmes

Zambia is highly vulnerable to climate change and climate variability. Zambia has embarked on a range of projects and programs that either seek to mitigate or adapt to climate change and variability. In addition, there are a range of government programs where although the objective of the expenditure is not to secure mitigation or adaptation to climate change, the outcome of the expenditure leads to these objectives being met.

This chapter considers all such climate change-relevant activities from an expenditure perspective, analysing the share of public resources currently devoted to climate change adaptation or mitigation and the composition of this expenditure.

### Summary of data sources used

The approved budget figures were obtained from the following sources:

- ▶ GRZ Yellow Books for the fiscal years 2013, 2014 and 2015.
- ▶ OECD data on Climate Change Inflows

### Budgeted expenditure for climate change-relevant activities

#### Overall trend

Based on the figures obtained from the budget tracking tool developed as part of the assignment, Zambia has seen a significant increase in the national budget allocation for climate change-relevant activities since 2013, both in absolute and relative terms over the three-year period studied (Table 1.5). Zambia's budgeted amount for such activities grew from ZMW 2.57 bn in 2013 to ZMW 5.4 bn in 2015; this represents growth of 109% in three years.

Total spending on climate change-relevant activities is estimated at 8-12 per cent of government expenditure, and this has increased steadily since 2013 on account of increased donor funding for such activities.

**Table 1.5: Climate Change Relevant Budgets 2013 – 2015**

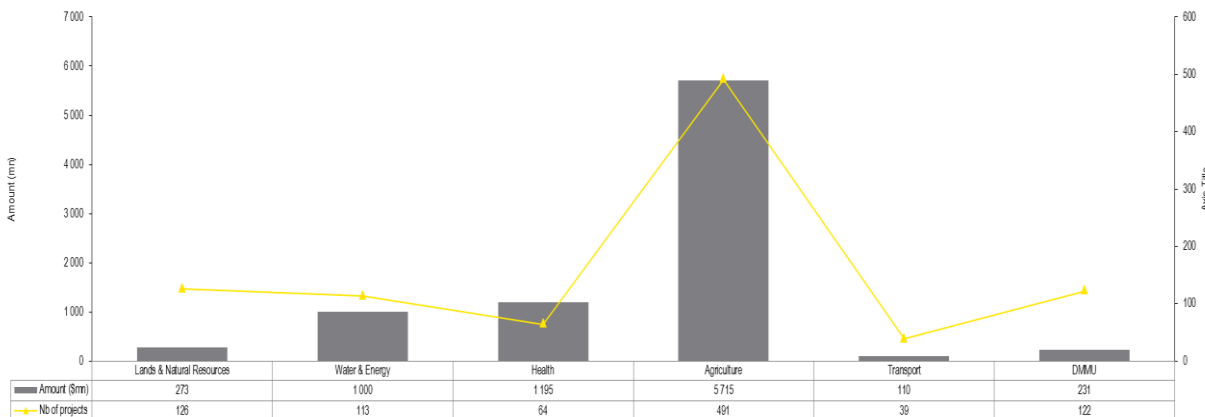
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Total budget for climate change-relevant activities	2 577	5 291	5 399
Total Budget	32 212	42 682	46 667
<b>Share of total budget (%)</b>	<b>8%</b>	<b>12%</b>	<b>12%</b>

## Budgeted expenditure for climate change-relevant activities

The Agriculture Sector has the most climate change related funding, followed by the Water & Energy Sector and Health as shown in Chart 1.1 below.

The results for Health are skewed as they include non-Climate Change relevant expenditure.

**Chart 1.1: Climate Change Budgeted Expenditure by Sector 2013 – 2015**



Climate change spending is concentrated in a relatively few ministries as depicted in chart 2.1 above. The Ministries of Agriculture, Lands and Natural Resources stand out, being natural focal points for government’s response to climate change adaptation and mitigation respectively.

## Number and funding of Climate Change Relevant Programmes

The number of Climate Change Programmes is shown in Table 1.6 below.

**Table 1.6: Number of climate change relevant programmes by sector**

	2013		2014		2015	
	No Prog	Funding ZMW (mns)	No Prog	Funding ZMW (mns)	No Prog	Funding ZMW (mns)
Lands & Natural Resources	33	36.84	42	135.96	51	100.11
Water & Energy	41	70.19	32	97.10	40	179.69
Health	17	302.99	21	510.18	26	599.49
Agriculture	123	2026.56	184	4470.87	184	3974.37
Transport	17	34.48	11	19.30	13	433.10
DMMU	56	106.11	46	58.09	39	112.82
<b>Total Number of Projects/ Funding</b>	<b>287</b>	<b>2577.16</b>	<b>336</b>	<b>5291.48</b>	<b>353</b>	<b>5399.57</b>

The total number of climate change relevant programmes identified from the Yellow Book has increased significantly over the period 2013 – 2015 from 287 programmes in 2013 to 353 programmes in 2015. This highlights the importance GRZ has attached to climate change adaptation and mitigation.

The most significant increase in climate change relevant programmes increase was in the Ministry of Lands and Natural Resources which had the highest increase in number of programmes of 55%. followed by the Ministry of Agriculture & Livestock which showed an increase of 49%.

## Comparison of Approved Budgets, Approved Funding and Actual Expenditure

Over the past three years actual expenditure has been consistently lower than the budgeted amounts, with outturns at roughly 60-75% of the budget as depicted in Tables 1.7 – 1.9.

The approved funding has been consistently lower than the budgeted expenditure. This may affect the pace of delivery of major projects related to climate change. This is usually attributable to low absorptive capacity, diversion of funds to meet critical / unforeseen contingencies / events.

**Table 1.7: 2013 Climate change Relevant Expenditure compared to Budgeted Expenditure**

	2013			
	Authorised Provision ZMW Million	Approved Funding ZMW Million	Actual Expenditure ZMW Million	% Variance Actual vs Budget
Lands & Natural Resources	36.8	13.9	12.8	35%
Water & Energy	70.2	33.6	30.9	44%
Health	303.0	166.6	161.7	53%
Agriculture	2 026.6	1 732.0	1 669.6	82%
Transport	34.5	26.0	17.7	51%
DMMU	106.1	65.2	28.1	26%
<b>Total</b>	<b>2 577.2</b>	<b>2 037.4</b>	<b>1 920.8</b>	<b>75%</b>

**Table 1.8: 2014 Climate change Relevant Expenditure compared to Budgeted Expenditure**

	2014			
	Authorised Provision ZMW Million	Approved Funding ZMW Million	Actual Expenditure ZMW Million	% Variance Actual vs Budget
Lands & Natural Resources	136.0	10.8	9.3	7%
Water & Energy	97.1	54.1	44.8	46%
Health	510.2	353.1	375.1	74%
Agriculture	4 470.9	2 938.1	2 727.4	61%
Transport	19.3	13.9	8.5	44%
DMMU	58.1	31.4	24.6	42%
<b>Total</b>	<b>5 291.5</b>	<b>3 401.5</b>	<b>3 189.7</b>	<b>60%</b>

**Table 1.9: 2015 Climate change Relevant Expenditure compared to Budgeted Expenditure**

	2015			
	Authorised Provision ZMW Million	Approved Funding ZMW Million	Actual Expenditure ZMW Million	% Variance Actual vs Budget
Lands & Natural Resources	100.1	8.1	6.1	6%
Water & Energy	179.7	9.2	5.2	3%
Health	599.5	381.9	317.0	53%
Agriculture	3 974.4	3 369.0	2 843.4	72%
Transport	433.1	398.1	94.6	22%
DMMU	112.8	33.8	10.9	10%
<b>Total</b>	<b>5 399.6</b>	<b>4 200.2</b>	<b>3 277.3</b>	<b>61%</b>

Table 1.9 above shows that 61% of budgeted climate change expenditure was actually spent. This is primarily because the 2015 budget does not cover the full fiscal year.

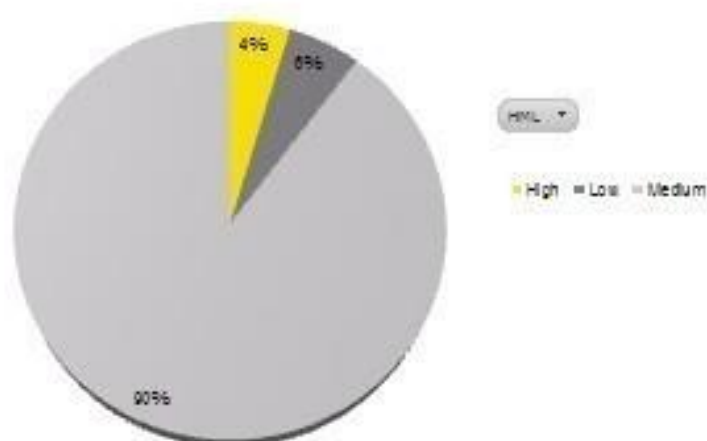
On average, approximately 75% of the budgeted funds in 2013 were spent. While in 2014, the total expenditure compared to budget was 60% and 61% in 2015. The outturn in percentage terms for 2015 could turn out to be higher as figures are up to October 2015. The drastic drop in actual spending, vis-à-vis the approved budget in 2013 - 2015 put the budget system into question. This shows that whilst the Government is allocating funds for climate change, the releases to fund the programmes and activities and the actual expenditure have been progressively been going down. This is a cause for concern which should be investigated and rectified.

## Relevance of climate relevant expenditure

The majority of climate change-related expenditure is spent on programmes with medium climate change relevance as shown in chart 2.2 below. Approximately 89% of all climate-related expenditure in Zambia is of medium relevance, meaning that GRZ funds activities with (i) either secondary objectives related to building climate resilience or contributing to mitigation, or (ii) mixed programmes with a range of activities that are not easily separated but include at least some that promote climate resilience or mitigation that indirectly contribute to adaptation and mitigation, although this is not the project's primary objective.

The share of high-relevance projects is very low and primarily consists of projects funded by Development Partners.

**Chart 1.2: Relevance of climate change budgets 2013 - 2015**



Source: Calculations from MoFNP data

**Table 1.9: Relevance of climate change programmes, high, medium & low relevance**

	2013			2014			2015		
	High	Low	Medium	High	Low	Medium	High	Low	Medium
Agriculture	11	57	55	32	41	111	15	94	75
DMMU	51	4	1	42	4		36	3	
Health		6	11		9	12		10	16
Lands & Natural Resources	18		15	20	2	20	16	8	27
Transport	7	4	6	2	2	7	4	2	7
Water & Energy	20	5	16	16	5	11	21		19
<b>Total</b>	<b>107</b>	<b>76</b>	<b>104</b>	<b>112</b>	<b>63</b>	<b>161</b>	<b>92</b>	<b>117</b>	<b>144</b>

Source: Calculations from MoFNP data



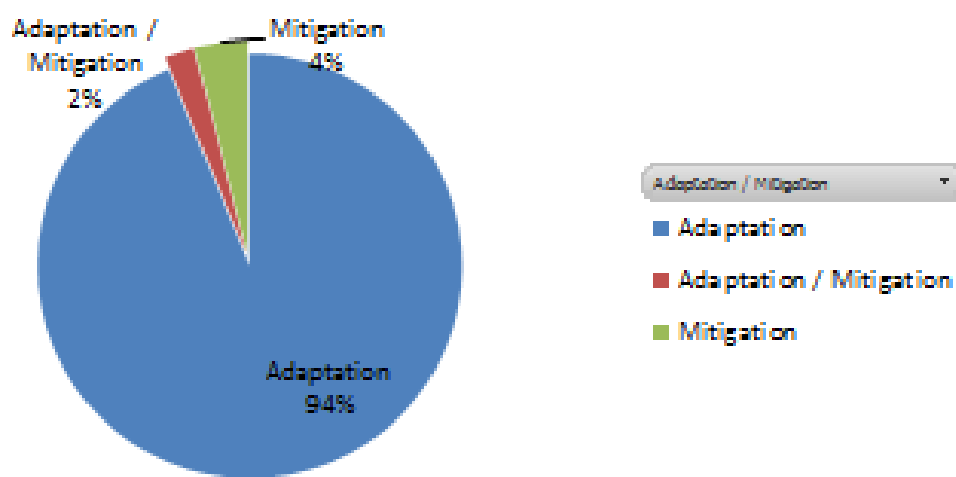
## Adaptation vs Mitigation

The composition of climate change-relevant expenditure appears to have shifted over the three year period, from projects with a primary focus on either adaptation or mitigation to projects that combine both sets of activities.

Each programme has been classified according to whether the impact of the project is likely to mitigate the effects of climate change or help communities adapt to its effects.

Zambia has a growing number of projects that do both. Between 2009/10 and 2012/13 the share of funding for adaptation activities fell from 62% to 37% and funding for mitigation projects fell from 25% to 13%, whilst the share of funding for projects which address both mitigation and adaptation rose from 13% to 50% (Chart 1.3 and Table 2.0).

**Chart 2.3: Composition of climate change-related projects in Zambia 2013-2015**



Source: Calculations from MoFNP data

**Table 2.0: Types of climate change-relevant expenditure**

Category of project	2013		2014		2015	
	No Prog	Funding ZMW (mns)	No Prog	Funding ZMW (mns)	No Prog	Funding ZMW (mns)
Adaptation	268	1 459.2	314	2 762.1	333	3 946.7
Adaptation / Mitigation	7	0.6	7	6.0	8	3.9
Mitigation	12	1 117.4	15	2 523.3	12	1 449.0
<b>Total Number of Projects/ Funding</b>	<b>287</b>	<b>2 577.2</b>	<b>336</b>	<b>5 291.5</b>	<b>353</b>	<b>5 399.6</b>

Source: Calculations from MoFNP data

## 1.6. Sector Analysis

### The Natural Resources Sector

The National Adaptation Programme on Action NAPA (2007) identified the Natural Resources Sector as one of the key sectors for climate change for the following reasons:

- Natural Resources do not represent an economic sector, but the Zambian economy contains important sectors that are dependent on natural resources (fisheries, mining, forestry and tourism);
- The integrity and functioning of the natural resources system in Zambia is the foundation of all economic activity;
- Investment in the conservation of natural resources provides a cost effective means of ensuring adaptation to the climate change impacts that are already being experienced in Zambia and mitigates against greenhouse gas emissions; and
- There is strong tradition with economic theory and analyses which emphasizes the primacy of natural resources for economic growth and sustainable development.

Zambia is one of the nine (9) pilot countries for the UN-REDD Program. Table below lists the programmes, activities and budgets identified from the Yellow Book which contribute towards climate change resilience.

**Table 2.1 Climate change-relevant Budgets – Natural Resources Sector**

cc		cc				
Sum of Total Authorised Provision						
			Year			
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
[-] Adaptation	[-] 1006	[-] Contributions and Subscriptions to Organ	2 526 000	2 205 386	2 057 088	6 788 474
	[-] 1022	[-] Agroforestry and Afforestation	10 862 680	3 576 697	100 000	14 539 377
	[-] 1042	[-] Community Based Forestry Management		255 000		255 000
	[-] 1060	[-] Community Environment and Natural Resour	200 000	337 399	165 000	702 399
	[-] 1070	[-] Environmental Policy, Legislation and Re	50 000			50 000
	[-] 1081	[-] Forest Protection	995 000	123 500	1 884 888	3 003 388
	[-] 1170	[-] Support to Environmental Projects	9 610 000	57 764 274	52 536 500	119 910 774
	[-] 1171	[-] Support to Forestry Projects	5 650 000	42 186 500	17 112 703	64 949 203
	[-] 1306	[-] District Livestock Development			890 000	890 000
	[-] 1361	[-] Promoting Sustainable Land Management an	1 110 000			1 110 000
	[-] 1369	[-] Beekeeping Enterprise Development		1 987 500		1 987 500
	[-] 1375	[-] Environment and Natural Resources Awaren		575 000	590 000	1 165 000
	[-] 1376	[-] Field Assessments for Projects and Proje		187 200	310 000	497 200
	[-] 1389	[-] Project/Programme Development and Review		537 770		537 770
	[-] 1416	[-] National Tree Planting			13 638 112	13 638 112
	[-] 1417	[-] Project/Programme Development and Review			275 000	275 000
	[-] 1419	[-] Natural Resources Valuation			70 000	70 000
<b>Adaptation Total</b>			<b>31 003 680</b>	<b>109 736 226</b>	<b>89 629 291</b>	<b>230 369 197</b>
[-] Adaptation / Mitigation	[-] 1006	[-] Contributions and Subscriptions to Organ	201 400	27 051	5 751	234 202
	[-] 1070	[-] Environmental Policy, Legislation and Re	80 000			80 000
	[-] 1151	[-] Research and Development	80 000			80 000
	[-] 1170	[-] Support to Environmental Projects		4 987 388	3 498 000	8 485 388
	[-] 1375	[-] Environment and Natural Resources Awaren		900 303		900 303
<b>Adaptation / Mitigation Total</b>			<b>361 400</b>	<b>5 914 742</b>	<b>3 503 751</b>	<b>9 779 893</b>
[-] Mitigation	[-] 1070	[-] Environmental Policy, Legislation and Re	60 000			60 000
	[-] 1081	[-] Forest Protection		100 000	100 000	200 000
	[-] 1170	[-] Support to Environmental Projects		12 540 326		12 540 326
	[-] 1171	[-] Support to Forestry Projects	5 210 000	6 600 500	6 625 000	18 435 500
	[-] 1361	[-] Promoting Sustainable Land Management an	200 000			200 000
	[-] 1375	[-] Environment and Natural Resources Awaren		1 065 000	250 000	1 315 000
<b>Mitigation Total</b>			<b>5 470 000</b>	<b>20 305 826</b>	<b>6 975 000</b>	<b>32 750 826</b>
<b>Grand Total</b>			<b>36 835 080</b>	<b>135 956 794</b>	<b>100 108 042</b>	<b>272 899 916</b>

Budget allocations to the Natural Resources Sector has been fluctuating over the 3 years, with ZMW 36.8m, ZMW 135.9 and ZMW 100.1m being allocated in 2013, 2014 and 2015 respectively. In percentage terms, the allocations increased by 269 % between 2014 and 2013. In 2015 the allocations fell by 73%.

## Agriculture and Food Security Sector

The Agriculture sector is adversely affected by drought, floods and high temperatures. Droughts have led to crop failure, loss of income and increase in diseases (both human and livestock). High frequency of dry spells has also contributed to shortening of the crop growing season and damage. Floods have led to water logging, soil erosion, and destruction to infrastructure and have hindered farming activities. All these factors have negatively impacted on food security livelihoods and adaptive capacity of vulnerable communities.

Table 2.2 shows the adaptation and mitigation programmes in the agriculture sector.

**Table 2.2: Climate change-relevant Budgets - Agriculture and Food Security Sector**

cc		cc				
Sum of Total Authorised Provision						
			Year			
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
Adaptation	1002	Events	47 329	27 730	90 000	165 059
	1003	Capacity Building	131 174	974 518	414 000	1 519 692
	1011	Information Management			85 792	85 792
	1060	Community Environment and Natural Resour	172 500	44 530		217 030
	1120	Monitoring and Evaluation		176 701	333 950	510 651
	1124	Management of Information Systems		90 000	100 000	190 000
	1151	Research and Development	593 581	5 143 203	8 029 895	13 766 679
		Plant Genetic Resources Research			200 000	200 000
	1156	Seed Multiplication	87 624	386 897	70 000	544 521
	1182	Transport Management			390 000	390 000
	1093	Inspections	402 191	128 177	116 669	647 037
	1139	Programme Co-ordination	87 678	63 498	1 008 073	1 159 249
	1018	Agricultural Development Programmes	57 481 386	542 497 664	690 383 945	1 290 362 995
	1053	Crop Production, Advisory and Technical	482 625	1 549 977	1 996 704	4 029 306
	1177	Technology Development and Dissemination			282 000	282 000
	1096	Irrigation Development and Support	175 984	282 000	770 000	1 227 984
	1041	Commercialisation of Agricultural Land	237 647	215 000	330 000	782 647
	1044	Conservation Farming	215 227	360 000	517 658	1 092 884
	1285	Soils Research	150 000	461 566	450 000	1 061 566
	1021	Plant Protection and Quarantine	296 450	983 000	1 525 796	2 805 246
	1076	Farming Systems and Social Sciences	256 800	424 000	1 987 628	2 668 428
	miti	preserve genetic			1 000 000	1 000 000
	1025	Aquaculture Management and Development	811 139	423 547	120 661	1 355 347
	1253	Farmer Input Support Programme (FISP)	852 582 111	1 234 374 446	1 521 147 660	3 608 104 217
	1377	FISP Electronic Voucher Pilot		174 117 546	301 292 939	475 410 485
	1032	Biotechnology	187 762	1 567 856	685 029	2 440 647
	1047	Control Growing	94 851	275 000	125 000	494 851
	1122	Variety Testing and Registration	250 230	250 000	761 000	1 261 230
	1259	Infrastructure Rehabilitation and Constr			335 000	335 000
	1265	Distinctness, Uniformity and Stability (	63 234	400 000	268 942	732 176
	1160	Soils and Water Management	325 700	701 000	3 211 728	4 238 428
	1052	Crop Improvement and Agronomy	15 000	78 000	180 000	273 000
	1102	Land Husbandry	86 660	1 860 000		1 946 660
<b>Adaptation Total</b>			<b>915 234 883</b>	<b>1 967 855 856</b>	<b>2 538 210 069</b>	<b>5 421 300 808</b>
Adaptation / Mitigation	1151	Research and Development			124 400	124 400
<b>Adaptation / Mitigation Total</b>					<b>124 400</b>	<b>124 400</b>
Mitigation	1018	Agricultural Development Programmes		71 520		71 520
	1063	Food Security	1 111 189 495	2 502 500 000	1 435 265 398	5 048 954 893
	1078	Food Conservation, Preservation and Stor	76 196	220 000	225 100	521 296
	1021	Plant Protection and Quarantine	57 000	225 000	374 906	656 906
	1282	Research Unit Coordination			166 520	166 520
<b>Mitigation Total</b>			<b>1 111 322 691</b>	<b>2 503 016 520</b>	<b>1 436 031 924</b>	<b>5 050 371 134</b>
<b>Grand Total</b>			<b>2 026 557 573</b>	<b>4 470 872 376</b>	<b>3 974 366 393</b>	<b>10 471 796 342</b>

The Agricultural and Food Security Sector constitutes the sector with the highest funding in terms of budgetary allocations and expenditure over the 3 years. The budget allocation for adaptation programmes and activities increased by 177% while that for mitigation also increased by 29%. The key programmes with the highest allocation are farmer input support programme under adaptation and food security under mitigation.

## Water & Energy Sector

Adaptation measures in the Water and Energy sector have been developed in light of the observed and anticipated effects of climate change and variability. Droughts have negatively affected ground water resources and have contributed to critical water shortages. A number of boreholes and rivers have dried up. The hydropower generation is also affected by prolonged drought situations.

Water sector projects contributing towards climate resilience have focused on the following:

- ▶ Improved institutional arrangements for water resources management;
- ▶ Development of water resources infrastructure;
- ▶ Strengthen institutional arrangements for water supply and sanitation;
- ▶ Investment in water supply and sanitation infrastructure; and
- ▶ Information and knowledge management.

Energy sector projects focus on the following:

- ▶ Diversifying energy generation sources;
- ▶ Promoting renewable technologies for electricity generation; and
- ▶ Setting renewable energy targets in the energy sector.

Table 2.3 below lists the programmes, activities and budgets identified from the Yellow Book which contribute towards climate change resilience in the Water & Energy Sector.

**Table 2.3: Climate change-relevant Budgets – Water and Energy Sector**

Sum of Total Authorised Provision		Year				
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
[-] Adaptation	[-] 1012	[-] Infrastructure Development	33 990 813	30 928 844		64 919 657
	[-] 1142	[-] Infrastructure Management	6 163 827	33 502 350		39 666 177
	[-] 1031	[-] Bio-fuels Development	7 674 338	4 084 800	3 583 600	15 342 738
	[-] 1035	[-] Management of Wood fuel Sector	3 825 921	2 851 605	3 617 696	10 295 222
	[-] 1065	[-] Energy Efficiency and Conservation	6 518 175	4 644 796	2 944 247	14 107 218
	[-] 1150	[-] Renewable and Alternative Energy Develop	9 388 274	11 544 106	2 007 003	22 939 383
	[-] 1302	[-] Specialised Plant and Equipment for Wate	-0	4 860 161	5 639 021	10 499 182
	[-] 1394	[-] Hydrogeomatics			2 500 000	2 500 000
	[-] 1396	[-] Groundwater Resources Infrastructure Dev			10 892 707	10 892 707
	[-] 1398	[-] Surface Water Resources Infrastructure D			139 483 530	139 483 530
	[-] 1397	[-] Management of International Shared Water			3 000 000	3 000 000
	[-] 1113	[-] Management of Shared Water Bodies	425 906	1 948 272		2 374 178
	[-] 1187	[-] Water Resource Management and Informatio	1 625 063	2 720 000		4 345 063
<b>Adaptation Total</b>			<b>69 612 316</b>	<b>97 084 934</b>	<b>173 667 804</b>	<b>340 365 054</b>
[-] Adaptation / Mitigation	[-] 1002	[-] Events		12 000		12 000
<b>Adaptation / Mitigation Total</b>				<b>12 000</b>		<b>12 000</b>
[-] Mitigation	[-] 1065	[-] Energy Efficiency and Conservation	574 800			574 800
	[-] 1395	[-] Water Resources Infrastructure Managemen			6 020 069	6 020 069
<b>Mitigation Total</b>			<b>574 800</b>		<b>6 020 069</b>	<b>6 594 869</b>
<b>Grand Total</b>			<b>70 187 116</b>	<b>97 096 934</b>	<b>179 687 873</b>	<b>346 971 923</b>

The budgetary allocations for the Water and Energy Sector have increased over the 3 years from ZMW 70.2 m in 2013 to ZMW 179.7m in 2015. This is a 155% increment. Allocations for adaptation make up 98% of the climate change funding while 2% of the allocations are for mitigation activities. Activities with the highest budget allocations include Groundwater Resources Infrastructure Development and Surface Water Resources Infrastructure Development.

## Disaster Management and Mitigation Unit

The Disaster Management and Mitigation Unit (DMMU) under the Office of the Vice President, is responsible for disaster preparedness, response, mitigation, and prevention. It is housed within an influential ministry with convening powers conferred by an Act of Parliament, and has regional offices at the provincial, district, and satellite (sub-district) levels. DMMU chairs the vulnerability assessment committees, and is presently developing a geospatial information system for climate risks in collaboration with WFP. However, DMMU addresses all types of disasters (including refugee issues) and has not historically been at the lead in climate change issues.

Table 2.4 below lists the programmes, activities and budgets identified from the Yellow Book which contribute towards climate change resilience in the Disaster Management and Mitigation Unit (DMMU).

**Table 2.4: Climate change-relevant Budgets – DMMU**

Sum of Total Authorised Provision		Year				
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
[-] Adaptation				299 616		299 616
	[+] 3001	[+] General Administration	1 512 000	555 611	155 260	2 222 871
	[+] 3003	[+] Capacity Building	2 570 028	836 792	1 637 190	5 044 010
	[+] 3144	[+] Disaster Preparedness	54 774 704	24 481 406	47 775 084	127 031 194
	[+] 3145	[+] Co-ordination of Disaster Management	443 050	519 587	1 981 909	2 944 546
	[+] 3146	[+] Disaster Response	42 904 222	28 588 507	57 640 897	129 133 626
	[+] 3148	[+] Disaster Mitigation	3 907 508	2 804 299	3 627 118	10 338 925
	[+] 3154	[+] Baseline Development		-		-
<b>Adaptation Total</b>			<b>106 111 512</b>	<b>58 085 818</b>	<b>112 817 458</b>	<b>277 014 788</b>
<b>Grand Total</b>			<b>106 111 512</b>	<b>58 085 818</b>	<b>112 817 458</b>	<b>277 014 788</b>

DMMU programmes and activities are in the form of adaptation, with the bulk of the budget allocations funding adaptation activities. The allocation to the DMMU have increased by 6% over the 3 years, though there was a big drop of 50% in 2014. The major activities that the DMMU carries out that contributed to this increase or decrease are disaster preparedness and disaster response. The two activities constitute 92% of the budget over the 3 years.

## Transport Sector

The Ministry of Transport has a number of Departments responsible for implementing climate resilience projects.

Increased extreme events could impact bridges, roads and other transport infrastructure.

Projects being undertaken by the Road Development Agency with regards to Climate resilience include the following projects;

1. Pilot Project for Climate Resilience (PPCR) for the Improvement of Climate Resilient Standards of Strategic Roads in the Kafue River Basin;
2. Consulting Services for the Development of Climate Resilient Infrastructure Standards and Codes for the Transport Sector in Zambia.

Summary table 2.5 below lists the programmes, activities and budgets identified from the Yellow Book which contribute towards climate change resilience in the Transport Sector.

**Table 2.5: Climate change-relevant Budgets – Transport Sector**

cc		cc				
Sum of Total Authorised Provision						
			Year			
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
[-] Adaptation	[-] 0	[-] RDA: Pilot Project for Climate Resilience (PPCR) for the Improver		4 943 195	5 462 163	10 405 359
	[-] 1000	[-] Personal Emoluments		19 334		19 334
	[-] 1012	[-] Infrastructure Development	4 590 000			4 590 000
	[-] 1092	[-] Information Provision and Dissemination	1 380 200	682 320	682 558	2 745 078
	[-] 1124	[-] Management of Information Systems	150 000			150 000
	[-] 1137	[-] Procurement Management	7 000 000	2 171 776	12 067 386	21 239 162
	[-] 1142	[-] Infrastructure Management	2 384 000	8 612 460	389 044 131	400 040 591
	[-] 1140	[-] Project Inspections	3 000 000			3 000 000
	[-] 1188	[-] Weather and Climatic Dissemination and S	233 200	269 160	273 187	775 547
	[-] 1038	[-] Canals and Inland Waterways Development	12 900 000	2 500 000	25 312 789	40 712 789
	[-] 1365	[-] Environmental Issues/Climate Change Miti	131 570			131 570
	[-] 1359	[-] Habours and Canals Development	2 180 400			2 180 400
	[-] 1360	[-] District Agricultural Coordination	300 000			300 000
<b>Adaptation Total</b>			<b>34 249 370</b>	<b>19 198 245</b>	<b>432 842 214</b>	<b>486 289 830</b>
[-] Adaptation / Mitigation	[-] 1001	[-] General Administration	207 308			207 308
	[-] 1002	[-] Events	26 389		28 448	54 837
	[-] 1365	[-] Environmental Issues/Climate Change Mitigation and Adaptation/Disaster Risk			15 035	15 035
		[-] Environmental Issues/Climate Change Miti		98 731	215 200	313 931
<b>Adaptation / Mitigation Total</b>			<b>233 697</b>	<b>98 731</b>	<b>258 683</b>	<b>591 111</b>
<b>Grand Total</b>			<b>34 483 067</b>	<b>19 296 976</b>	<b>433 100 897</b>	<b>486 880 940</b>

In the transport sector more funds were allocated for adaptation programmes to withstand climate change vulnerabilities. The 2013 budget allocation was ZMW 34.4 m which then dipped to ZMW 19.3m in 2014, and increased drastically to ZMW 433.1m in 2015. The major programmes that contributed to this increase in budget allocations were infrastructure development and management. The budget allocation towards mitigation was a miniscule amount of ZMW 0.258 m.

## Health Sector

Health and climate interact in a number of ways. These interactions include direct impacts from extreme weather events such as:

- ▶ Injuries and deaths from heat stress, floods or storms,
- ▶ Indirect effects include changes in the prevalence and ranges of disease vectors, water/food/rodent-borne pathogens, water/air quality, and food availability and quality.

Summary table 2.6 below lists the programmes, activities and budgets identified from the Yellow Book which contribute towards climate change resilience in the Health Sector.

**Table 2.6: Climate change-relevant Budgets – Health Sector**

Sum of Total Authorised Provision		Year				
Adaptation / Mitigation	GRZ PROGRAMMES	GRZ PROGRAMMES2	2 013	2 014	2 015	Grand Total
Adaptation	5132	Surveillance Control and Research	2 505 558	83 497 942	20 434 441	106 437 941
	5072	Malaria Control	9 822 562	9 365 144	9 822 562	29 010 268
	5024	Health Service Delivery		154 559 821	117 716 096	272 275 917
	5052	Medical Supplies	290 554 730	262 699 776	451 415 481	1 004 669 987
	5108	Chest Diseases Laboratory	104 459	52 776	104 459	261 694
<b>Adaptation Total</b>			<b>302 987 309</b>	<b>510 175 459</b>	<b>599 493 039</b>	<b>1 412 655 807</b>
<b>Grand Total</b>			<b>302 987 309</b>	<b>510 175 459</b>	<b>599 493 039</b>	<b>1 412 655 807</b>

In the health sector, the budget allocations have also been increasing on yearly basis. Over the 3 years, budget allocations have increased by 98%. This shows the importance that the Zambian Government attaches to the Health sector as it prepares it to withstand the effects of climate change in the form of floods, heatwaves, storms and prevalence and ranges of disease vectors.

## 1.7. Conclusion & Recommendations

The report provided budget analysis of the sectors, programmes and activities into which climate change funds were spent in 2013, 2014 and 2015. The analysis reveals that the Government of Zambia generally has been increasing the allocation of funds to the climate change programmes in accordance with the various policy instruments and conventions that it has signed with international organisations and partners. The highest budgetary allocation and spending is in the Agricultural and Food Security sector which comprise 80% and 87% respectively of the overall budget allocations and expenditure. Cooperating partners have also increased the allocations over the years.

While the budget allocations have increased considerably over the 3 years, the funding /budget releases have not kept pace with the allocations as it has averaged 72% over the years. In most cases the amount funded has been the amount actually spent, showing that there may be a lack of absorptive capacity in the line Ministries and agencies implementing climate change programmes and activities. The budgeted funds are likely to have been reallocated to other pressing needs during the course of the year.

Going forward, we recommend that the GRZ ensures that climate change funds allocated in the budget are fully funded and spent to avoid the underspending revealed in the budget tracking tool. Furthermore the GRZ should continue to allocate more funding to mitigate and adapt to climate change to achieve its objectives in line with its international obligations and national climate change strategy.



## **Section B – Budget Tracking Tool**

## 2.0. Current Budget Tracking Tool

### Purpose of updating the budget tracking tool

The Zambian Government and the international community currently do not have sufficient ways of measuring public flows of climate finance, nor of promoting effective practice in the delivery of financial support for climate change-related actions. The OECD is keen to see and understand how far GRZ is meeting its international obligations to allocate sufficient budget resources for climate change relevant programmes and activities. For example, the GRZ is supposed to set aside 25% of its domestic resources to climate changes programmes and activities. Furthermore, Zambia is required to allocate 50 billion dollars by 2050 towards climate change. The tracking of climate-related expenditure is one of the benchmarks required to be set up to monitor and evaluate financial flows for improved management, greater transparency and accountability of the climate change budget. This would allow the identification of national efforts towards climate change adaptation and mitigation by integrating climate change into the national budgeting process, and thus help assess if the national climate change policy targets are being met. It will also lead to more appropriate mobilisation of domestic resources towards climate change mitigation in all the sectors. By tracking climate change budgets and expenditures the Government of the Republic of Zambia will also be meeting the requirements of the UNFCCC for strengthening monitoring, reporting and verification of climate finance.

The budget tracking exercise will help improve the current budget tracking tool developed by the Zambia Climate Change Network (ZCCN) so that it captures budget allocations, disbursements/budget releases and end of year outturns for the identified budget codes and performance outcomes for the 2013 to 2015 fiscal years. This will encompass the scrutiny of the national budget to identify climate change relevant budgeted expenditures. The data obtained will be used as the basis for the analysis and revision of the budget tracking tool.

### Key Features of the current budget tracking tool

The current budget tracking tool was developed by the Zambia Climate Change Network (ZCCN). Key features of the current budget tracking tool include the following:

- The tool is excel based and tracks climate change relevant programmes from 2007 – 2013 across key sectors and departments including Agriculture, Environment and Natural resources, Water & Energy, DMMU, Infrastructure, and Transport.
- The tool contains climate change relevant programmes and budgets for each programme across all sectors.
- The budget tracking tool can serve as a tool to enable the Government of Zambia to improve the prioritisation, efficiency and effectiveness in tracking the public resources directed at supporting climate change adaptation and mitigation.

### Strengths of the current budget tracking tool

The current budget tracking was a good attempt at grouping all climate change relevant programmes and consolidating the programmes and budgets to gain an understanding of the total spent on climate change relevant programmes.

## Challenges with the current budget tracking tool

### 1. Identifying climate-related spending within the budget

Issues identified	Recommendations
<p>The GRZ chart of accounts does not contain a marker/code for climate change relevant budgets and expenditure.</p> <p>This also creates a particular challenge in reconciling programmes identified within the current tracking tool to the Yellow Book as there is no reference to programmes / activities coding as per IFMIS.</p>	<p>Although there is no specific coding within IFMIS to identify specific climate change relevant expenditure, climate change relevant programmes can be identified from the descriptions (for programmes and activities) and can then be classified as adaptation or mitigation.</p>

### 2. Actual disbursements (releases) and expenditure are not included

Issues Raised	Recommendations
<p>The current tracking tool only records budgets by Ministry and programmes.</p> <p>The tool also only captures the budget allocations without the budget outturn, making it difficult to determine if the funds allocated were actually spent for the intended purpose (s) outlined in the Yellow Book.</p> <p>Furthermore, the budget allocations and expenditure are not categorised by programme, sector and function and only include categories by the organisation /MDA through which the funds were allocated.</p>	<p>The tracking tool should be updated with budget estimates, funding and actual expenditure from IFMIS, making it possible to reconcile the budgets to the Yellow Book and verify the accuracy of the tracking tool.</p> <p>This information can be obtained from the IFMIS reports provided by the Accountant General's Departments – IFMIS team.</p>

### 3. Sources of climate change funds not recorded

Issues Raised	Recommendations
<p>The current budget tracking tool does not separate the various sources of funding for climate change funds namely;</p> <ul style="list-style-type: none"> <li>▶ Government of Republic of Zambia;</li> <li>▶ Development Partners e.g. Pilot Programme for Climate Resilience (PPCR); and</li> <li>▶ CSOs receiving grants from donors directly either through Civil Society Environmental Fund (CSEF) or through bilateral agreements between a donor and a particular CSO.</li> </ul>	<p>The budget tracking tool should ideally identify the source of funds in terms of whether they are donor or government funded.</p>

#### 4. No participation by key stakeholders in the development of the current budget tracking tool

Issues Raised	Recommendations
<p>During the project, the EY team met with stakeholders in different Ministries responsible for implementing climate change relevant programmes. All stakeholders met as agreed in the inception phase, were not aware of the current tracking tool and were not involved in updating the current budget tracking tool. As a result, the existing budget tracking tool has not been utilised or shared with key stakeholders.</p>	<p>Involvement of key stakeholders responsible for implementing climate change programmes in the various sectors is critical.</p>

#### 5. Determining off-budget climate expenditure is difficult

Issues Raised	Recommendations
<p>Off-budget expenditures are financial transactions that are not reflected in the budget especially funds that flow directly to a project or through a CSO to the intended beneficiaries.</p>	<p>The tracking tool should have capability to incorporate off-budget expenditure.</p>

#### 6. Classification of climate change programs

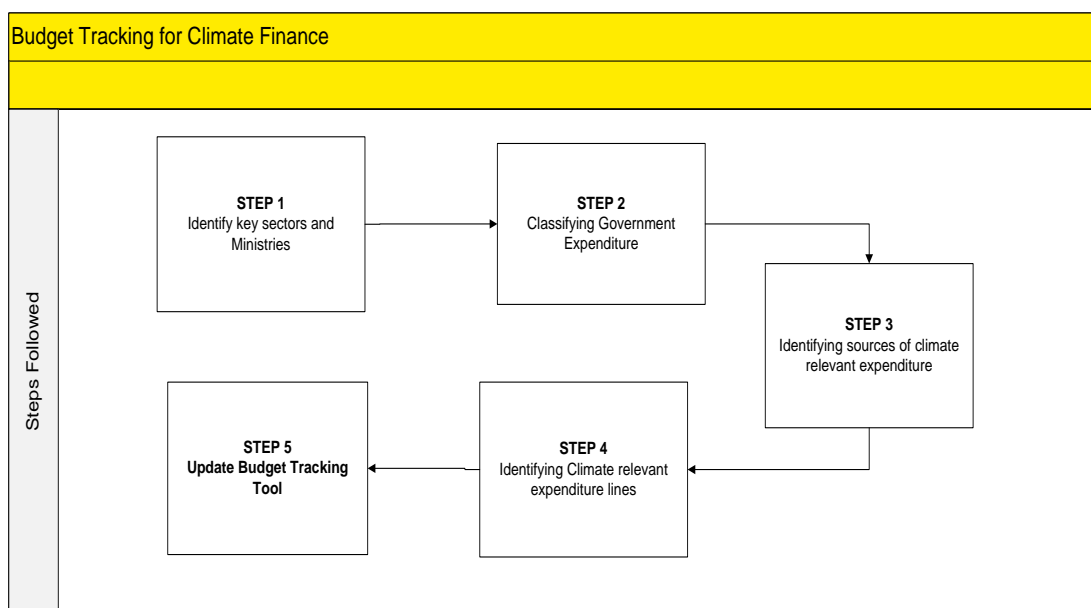
Issues Raised	Recommendations
<p>Climate Change programmes can be classified as adaptation / mitigation. The current tracking tool does not distinguish between these two classifications. Thus, to identify climate change adaptation or resilience finances within the government's annual budget, one has to analyse the implemented activity and determine whether it is an adaptation/mitigation activity or just a development one.</p>	<p>The tracking tool should distinguish between adaptation and mitigation projects to enable further analysis of climate change programmes. For this to happen the Yellow Book should clearly specify programmes and activities as adaptation or mitigation or both.</p>

## 2.1. Revised Budget Tracking Tool

### Methodology / steps in developing the revised budget tracking tool.

The key steps followed by the EY team in developing the budget tracking tool are outlined in the diagram below:

Diagram 2.1: Steps in developing the budget tracking tool.



These steps have been explained in great detail in the budget analysis report. Please refer to Budget Analysis Report.

### Key features of the updated budget tracking tool

The revised budget tracking tool, has been designed to address the shortfalls of the current budget tracking tool identified above.

Key features include:

#### 1. Tracking tool updated with information from IFMIS

The tracking tool was updated with budget estimates, funding and actual expenditure from IFMIS, making it possible to reconcile the budgets to the Yellow Book and verify the accuracy of the tracking tool.

Although there are no specific markers within the IFMIS Chart of Accounts to identify specific climate change relevant programmes and expenditure, these can be identified from the descriptions (for Programmes and Activities) and can then be further classified as adaptation or mitigation.

#### 2. Tracking tool classifies climate change relevant expenditures as Adaptation or Mitigation

The tracking tool enables the classification of climate change relevant programmes as either Adaptation or Mitigation. The definitions used to make these judgments are outlined in Budget Analysis report. Where information in the Yellow Book was insufficient to determine whether the expenditure was related to adaptation / mitigation, further investigation was undertaken through additional budget documentation and/or direct contact with the Ministry concerned.

The tracking tool is flexible to incorporate other classifications approaches which include additional categories, such as 'capacity building' or 'technology transfer' alongside mitigation and adaptation, but these have not been used.

**3. Tracking tool classifies climate change relevant expenditures as High, Medium or low relevance**

The tracking tool quantifies climate change relevant expenditures in the national budget, as High, Medium or Low relevance.

This was achieved by selecting activities, projects and programmes that are recognised as being part of the national response to climate change and then analysing the descriptions to determine whether the expenditure is classified as High, Medium or Low relevance.

Where information in the Yellow Book was insufficient to determine whether the expenditure was High, Medium or low relevance, further investigation was undertaken through additional budget documentation and/or direct contact with the Ministry concerned.

**4. Participation of key stakeholders in developing the budget tracking tool**

Our approach to developing the revised budget tracking tool involved meetings with key stakeholders responsible for implementing climate change programmes. The stakeholders were able to confirm the climate change programmes, classification and relevance of the programmes identified. Involvement of stakeholders will encourage wider and more positive involvement in climate resilience programmes and tool update.

## 2.2. Recommendations

We have provided recommendations below to further develop the tracking tool and ensure its use and sustainability.

### 1. Raise awareness of climate change programmes

During the development of the current tracking tool, it became apparent that officials in the various Ministries, Departments and Agencies responsible for implementing climate change programmes were not aware of the current budget tracking tool developed by ZCCN.

Officials were also not aware of the climate change programmes and the different categories of climate change including Adaptation and Mitigation strategies.

Raising awareness of officials within the Ministries and Departments particularly Planning Departments responsible for implementing climate change programmes is imperative. This could be achieved through tailored training opportunities, so that the likely climate change outcome of the planning is better understood.

### 2. Institutional arrangements to sustain new tool

In order to update the tracking tool, a coordinated effort is required with the relevant Ministries and Departments responsible for implementing climate change programmes. A dedicated team is required to update the tracking tool.

The Interim Climate Change Secretariat would be responsible for updating the tracking tool and hence should appoint a team/ resource to coordinate and update the tool for the time being pending the incorporation of the climate change budget tracking into the IFMIS system. The team should have access to IFMIS reports and other documentation required to update the tracking tool on a regular basis.

### 3. Coordination with stakeholders involved in implementing climate-related programmes

To ensure the revised tracking tool is updated with the most accurate and relevant information, coordination with relevant key stakeholders responsible for implementing climate change programmes is critical.

The following key stakeholders were identified during the development of the tracking tool.

	Stakeholder	Information required
1.	Vice Presidents Office – Disaster Management Mitigation Unit	Information on climate change relevant Programmes implemented by the Disaster Management Mitigation Unit
2.	Ministry of Agriculture and Livestock	Information on climate change relevant Programmes for the Agriculture Sector
3.	Ministry of Energy and Water Development Water Affairs Resource Management Authority (WARMA).	Information on climate change relevant programmes for the energy sector and water sector.
4.	Ministry of Lands, Natural Resources and Environmental Protection.  Zambia Environmental Management Agency (ZEMA)	Information on climate change relevant programmes for the Natural Resources sector.
5.	Ministry of Transport	Information on climate change relevant programmes for the transport sector.
6.	Ministry of Tourism	Information on climate change programmes for the tourism sector
7.	Ministry of Health	Information on climate change programmes for the Health sector
8.	Ministry of Finance – Accountant General's Department	Information on IFMIS reports and yellow books in electronic format
9.	Ministry of Development & National Planning	Information on performance measures for climate change programmes

	Stakeholder	Information required
10.	Ministry of Finance - Monitoring and Evaluation Department	Information on Monitoring and & Evaluation results for climate change programmes

Additional Government Departments and Agencies identified during the validation workshop that should be consulted in updating the climate change budget tracking tool going forward are listed below:

- ▶ Budget Office
- ▶ Millennium Challenge Account (MCA)
- ▶ National Council for Construction (NCC)
- ▶ Road Development Agency (RDA)
- ▶ Zambia Electricity Supply Corporation (ZESCO)
- ▶ Rural Electrification Agency (REA)
- ▶ Energy Regulation Board (ERB)
- ▶ Zambia Wildlife Authority (ZAWA)
- ▶ Zambia Forestry and Forestry Industries Corporation (ZAFICO)
- ▶ Office for Promoting pf Private Investment, (OPPI)
- ▶ Ministry of Local Government
- ▶ Zambia National Farmers Union (ZNFU)

#### 4. Co-ordination with National Planning Department initiative

The National Planning Department are currently undertaking a similar initiative to identify all climate change relevant programmes in the Ministries and Departments.

The Interim Climate Change Secretariat should explore the opportunity to co-ordinate with the National Planning Department to ensure that there is no duplication of effort and that synergies are realised where possible.

#### 5. Co-ordination with Ministry of Finance - Monitoring & Evaluation Department initiative

The Monitoring and Evaluation (M &E) Department have developed a Monitoring and Evaluation system (MMS tool). Discussions with the M & E Department indicated that the Monitoring and Evaluation system they have is capable of tracking climate related expenditure. Discussions with the Director of Monitoring & Evaluation Department and his team indicated that they would welcome the opportunity to include climate change as one of the sectors and they could track.

The possibility of tracking climate change public expenditure using the already existing Monitoring and Evaluation system should be explored further with the Monitoring and Evaluation Department.

This would involve defining business requirements for the budget tracking tool to ensure that the tool is produced from the IFMIS without maintaining two systems. Once the budget tracking tool is incorporated within IFMIS the excel based budget tracking tool will be abandoned as a climate change monitoring tool and the Monitoring & Evaluation Department would produce climate change budget tracking reports.

The Interim Climate Change Secretariat will meet with M& E Department to explore how to utilise the MMS for climate change budget tracking.



## **6. Climate Change expenditure should be planned and budgeted for in the annual budget formulation process**

The ICCS should explore a number of initiatives to ensure that climate related expenditures are captured as part of the annual budget formulation process. These include the following:

- ▶ Budget preparation process should capture all actors involved in climate-related expenditures who will adhere to a budget calendar for the formulation of the national budget;
- ▶ The budget preparation process should identify and separate key climate-related expenditure. This could be achieved through budget classification structures that allow for climate related expenditures to be clearly identified across all ministries, departments and agencies. This will assist in accurate coding and classification of the expenditure which will further help in tracking the climate related expenditures in the Yellow Book and IFMIS system;
- ▶ The Budget preparation process should capture climate-related expenditure in a medium term policy framework. GRZ already has a medium term policy and expenditure framework, but should be adapted to separate key areas of spending including climate-related expenditure; and
- ▶ A standard guideline defining climate related nomenclature should be prepared to guide staff in identifying climate related budgets and expenditures. The Budget Office together with the ICCS should prepare this guideline.

## **7. Climate-related expenditure should be subject to reporting and accounting**

The Government of Zambia embarked on a project called IFMIS to automate the government's financial, supply chain and human resources reporting. While important improvements in the IFMIS system have been achieved, there are still opportunities to improve the system. One of the shortfalls of the IFMIS is that the GRZ Chart of Accounts do not contain a marker for 'climate change relevant' spending. As a result, the EY team had to identify the climate change programmes and projects manually with officials from the relevant Ministries and Departments.

Discussions held with the Ministry of Finance – Accountant General Department - IFMIS team during the project, indicated that the IFMIS is capable of creating markers to track climate change relevant spending. IFMIS could be configured to create markers that will enable the Government to identify climate change relevant programmes, during the budget process and coding of expenditure. The markers should match the budget classifications recommended above to accurately climate-related expenditure and approved budgets.

Spending ministries and departments will then be able to record and reconcile climate-related transactions as part of their accounts reconciliation process.

The possibility of creating markers for climate change programmes should be explored with the Ministry of Finance – Accountant General Department - IFMIS team to ensure that Government accounts for all climate related expenditure.

## **8. Recording of financing of climate change expenditure in IFMIS**

Ministry of Finance & National Planning has the overall responsibility for overseeing delivery of the approved budget and should ensure that IFMIS is robust enough to monitor and track climate change related expenditure on a regular basis. Ministries should also actively monitor and manage their expenditure to ensure that the climate related activities they have outlined in their budget proposals are reflected in their expenditure.

IFMIS is currently not configured to provide information on sources of finance for climate change related expenditure. IFMIS could be configured to enable users to understand the sources of finance for climate change related expenditure. Analysis on sources of finance for climate change related expenditure will explain how much of the approved budget and out-turn has been financed by GRZ and other sources, including development partners.

The Interim Climate Change Secretariat will meet with the IFMIS team to explore the possibility of creating markers that will enable tracking of climate change expenditure.

## **9. Climate-related expenditure should be executed through government systems using the budget**

A significant amount of climate finance occurs off-budget, and is not reflected in the Yellow Book. GRZ should encourage Development Partners to use Government systems when providing development finance. For this to happen it requires the Government to maintain a credible IFMIS system that captures budgetary data

comprehensively and accurately, so that when Development Partners request for financial information on programmes, it is readily available.

**10. Climate-related expenditure should be subject to external oversight and scrutiny**

Expenditure for climate change adaptation and mitigation strategies should be reviewed and audited in the same way as any other government expenditure. Audit reports should highlight areas of incorrect practice, non-observance of financial rules and any grounds for concern over fraud or misappropriation.

**11. Budget tracking tool developed does not cover budgets and expenditure for districts incurred from own resources and transfers from central government.**

The budget tracking tool developed does not cover budgets and expenditure for districts incurred from own resources derived from the collection of local taxes and transfers (grants) from central government. It only covers funds allocated in the Yellow Book. As a way forward, another similar exercise would need to be executed at the district level to track climate change expenditure.

**12. Implementing the Business Case for Incorporating Climate Related Finances into IFMIS**

The ICCS should implement the business case for incorporating climate related finances and expenditures into IFMIS to avoid duplication of running two systems as recommended above. For details of the Business Case refer to Section D.

## **Section C –Budget Tracking Tool Excel**

## **Section D – Business Case for Budget Tracking Tool for Monitoring Climate Change Funds using the existing GRZ systems**

## 3.0. Background

The Zambian Government currently do not have sufficient ways of measuring public flows of climate finance, nor of promoting effective practice in the delivery of financial support for climate change-related actions. The OECD is keen to see and understand how far GRZ is meeting its international obligations to allocate sufficient budget resources for climate change relevant programmes and activities. For example, the GRZ is supposed to set aside 25% of its domestic resources to climate change programmes and activities. Furthermore, Zambia is required to allocate 50 billion dollars by 2050 towards climate change. The tracking of climate-related expenditure is one of the benchmarks required to be set up to monitor and evaluate financial flows for improved management, greater transparency and accountability of the climate change budget. This would allow the identification of national efforts towards climate change adaptation and mitigation by integrating climate change into the national budgeting process, and thus help assess if the national climate change policy targets are being met. It will also lead to more appropriate mobilisation of domestic resources towards climate change mitigation in all the sectors. By tracking climate change budgets and expenditures the Government of the Republic of Zambia will also be meeting the requirements of the UNFCCC for strengthening monitoring, reporting and verification of climate finance.

A budget tracking tool was initially developed by the Zambia Climate Change Network (ZCCN). The budget tracking was further developed by EY in 2015 to enable GRZ to capture budget allocations, disbursements/budget releases and end of year outturns for the identified budget codes and performance outcomes related to climate change programmes for the 2013 to 2015 fiscal years. The data obtained was used as the basis for the analysis and revision of the budget tracking tool.

A validation workshop was held with key stakeholders from Ministries and Departments responsible for implementing climate change programmes. A number of proposals were put forward by EY and key stakeholders during the validation workshop to further develop the budget tracking tool in order to ensure sustainability of the budget tracking tool.

## 3.1. Existing Systems

### 3.1.1. IFMIS

The Government of Zambia has automated its public finance management system, supply chain and human resources reporting through the implementation of IFMIS. While important improvements in the IFMIS system have been achieved, there are still opportunities to improve the system. One of the shortfalls of the IFMIS is that the GRZ Chart of Accounts do not contain a marker for climate change relevant' spending and is currently not configured to provide information on sources of finance for climate change related expenditure.

IFMIS could be configured to enable users to understand/identify the sources of finance for climate change related expenditure. Analysis of sources of finance for climate change related expenditure would explain how much of the approved budget and out-turn has been financed by GRZ and other sources, including development partners. Once financial information is captured accurately in IFMIS, regular monitoring of climate finance as part of the Monitoring & Evaluation system/process.

Preliminary discussions with the IFMIS team during the validation workshop indicated that to explore IFMIs could be configured to monitor climate change finance by creating markers given that the IFMIS team have the expertise to configure the IFMIS system to identify climate related finance and expenditure in the national system.

### 3.1.2. Monitoring & Evaluation systems

The Monitoring and Evaluation (M &E) Department have developed a Monitoring and Evaluation system (MMS tool) which is currently being used to monitor expenditure in other sectors. The MMS tool uses information from IFMIS and is said to be capable of tracking climate related expenditure. Discussions with the Director of Monitoring & Evaluation Department and his team indicated that they would welcome the opportunity to include climate change as one of the sectors to track and monitor expenditure.

The Monitoring & Evaluation Department have the expertise to configure the MMS tool and customise it for monitoring climate change programmes.

Information obtained during the development of the budget tracking tool and at the validation workshop held to discuss the report revealed that the current IFMIS and the Monitoring and Evaluation system could be used to extract similar information that the developed budget tracking tool captures. This exercise could be achieved if the two systems are appropriately configured.

### 3.2. Objectives of the business case

The business case is important for justifying the investment in the modification of the existing IFMIS to monitor climate finance. While the current budget tracking tool developed could meet the needs of the ICCS in the short to medium term, it is still manual as it is excel based, hence can be prone to errors. The excel based tool is a separate system from the IFMIS and M & E system. The key is to avoid the proliferation of many systems and to avoid this predicament, there is need to operate the excel based tool temporarily whilst taking steps to configure the IFMIS system to produce the climate change information required by the ICCS, GRZ and its development partners.

### 3.3. Options Proposed

GRZ have two options for adapting or developing technical processes and systems (such as software and databases) for monitoring climate change budgets, disbursements and expenditure.

The options put forward to ensure sustainability of the budget tracking tool essentially entails:

- ▶ **Option 1:** - Modification of existing IFMIS to monitor climate finance. The GRZ can either modify existing financial management systems to explicitly capture climate-related expenditures,
- ▶ **Option 2:** - Creation of a standalone budget tracking system to monitor climate finance. The GRZ can develop a standalone budget tracking system to track and monitor climate change finance by maintaining the newly developed budget tracking tool or developing another system which will involve the purchase of commercial software to record and monitor climate finance.

### 3.3.1. Advantages and Disadvantages of each option

Table I below shows the advantages and disadvantages to both of these options (see Table 1).

**Table 1: Advantages and Disadvantages of Modifying Existing Financial Management Systems or developing new standalone systems to track Climate Expenditures**

	<b>Option 1:</b> Modification of existing IFMIS to monitor climate finance	<b>Option 2:</b> Creation of standalone budget tracking system to monitor climate finance
<b>Advantages</b>	<ul style="list-style-type: none"> <li>▶ Would allow for effective integration of climate finance with other elements of financial planning and monitoring;</li> <li>▶ Would not require substantive training and learning costs, as staff are already familiar with existing systems; and</li> <li>▶ IFMIS team have confirmed that it is possible to modify the existing system to create trackers/codes to monitor climate finance.</li> </ul>	<ul style="list-style-type: none"> <li>▶ System could be customised to record and monitor climate finance.</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>▶ Technically challenging, costly, and time consuming to alter existing systems;</li> <li>▶ Could be met by bureaucratic resistance depending on the extent of the modifications needed and the power dynamics associated with the stakeholders involved; and</li> <li>▶ The configuration could pose problems if not handled professionally</li> </ul>	<ul style="list-style-type: none"> <li>▶ Would require new procedures and training, which would also be technically challenging, time consuming, and costly;</li> <li>▶ Would be challenging to coordinate between various Ministries and Departments should they choose to design a system together; and</li> <li>▶ Would run the risk of being poorly coordinated with existing IFMIS system and poorly integrated into core financial monitoring Development of another system separate from IFMIS would result in the duplication of efforts between IFMIS department, Monitoring and Evaluation department and the ICCS and it will be too costly to maintain the numerous systems.</li> </ul>

### 3.4. Preferred option – Modification of existing systems to monitor climate finance.

The preferred option is to have the two existing systems (IFMIS systems and Monitoring & Evaluation (MMS tool) modified to facilitate the tracking and monitoring of climate finance. This will ensure that the budget tracking tool for climate change tracking is sustainable as it will be integrated into existing systems, preventing the proliferation of separate systems outside national systems.

### **3.5. Institutional arrangements to support this initiative**

In order to update the IFMIS and the MMS tool, a coordinated effort is required with all Ministries and Departments responsible for implementing climate change programmes.

We propose that a working party be established to further develop the budget tracking tool and coordinate with the various Ministries and Departments responsible for implementing climate change programmes. The working party would be led by the Interim Climate Change Secretariat and would comprise of representatives from the IFMIS team, Budget Office Monitoring & Evaluation Department and Ministries and Departments responsible for implementing climate change programmes. The working party should be guided by clear terms of reference to ensure that their mandate is explicit. One of their functions should be to develop requirements specifications/definition for the design and development of the budget tracking tool within the IFMIS system. The newly developed excel based budget tracking tool should be a starting point in drawing the functional specifications required to achieve the integration of the tool into the IFMIS/M&E system. To ensure that proposal is funded a budget also needs to be drafted by the Working Party which will be funded by the ICCS.

Once the budget tracking systems are developed, a dedicated team is required to update the tracking tool on a regular basis. The Interim Climate Change Secretariat would be responsible for this and hence should appoint a team/ resource to coordinate and update the tool.

The team should have access to IFMIS reports and other documentation required to update the tracking tool on a regular basis.



## Overall Conclusion

To conclude, the Budget Tracking Project has highlighted a number of recommendations that will enable the Ministry of Finance to develop systems to monitor how much the Government budgets, disburses and actually spends on climate change related programmes.

**Section A** provided budget analysis of the sectors, programmes and activities into which climate change funds were spent in 2013, 2014 and 2015. The analysis reveals that the Government of Zambia generally has been increasing the allocation of funds to the climate change programmes in accordance with the various policy instruments and conventions that it has signed with international organisations and partners

While the budget allocations have increased considerably over the 3 years, the funding /budget releases have not kept pace with the allocations as it has averaged 72% over the years. In most cases the amount funded has been the amount actually spent, showing that there may be a lack of absorptive capacity in the Line Ministries and Agencies implementing climate change programmes and activities. The budgeted funds are likely to have been reallocated to other pressing needs during the course of the year.

Going forward, we recommend that the GRZ ensures that climate change funds allocated in the budget are fully funded and spent to avoid the underspending revealed in the budget tracking tool. Furthermore the GRZ should continue to allocate more funding to mitigate and adapt to climate change to achieve its objectives in line with its international obligations and national climate change strategy.

**Section B** described the budget tracking tool developed by EY and provided recommendations the Ministry of Finance could implement to ensure sustainability of the budget tracking tool. These recommendations included:.

- ▶ Raise awareness of climate change programmes;
- ▶ Institutional arrangements to sustain new tool;
- ▶ Coordination with stakeholders involved in implementing climate-related programmes;
- ▶ Co-ordination with National Planning Department initiatives;
- ▶ Co-ordination with Ministry of Finance - Monitoring & Evaluation Department initiative;
- ▶ Climate Change expenditure should be planned and budgeted for in the annual budget formulation process;
- ▶ Climate-related expenditure should be subject to reporting and accounting;
- ▶ Recording of financing of climate change expenditure in IFMIS;
- ▶ Climate-related expenditure should be executed through government systems using the budget;
- ▶ Climate-related expenditure should be subject to external oversight and scrutiny; and
- ▶ Implementing the Business Case for incorporating Climate Related funds in IFMIS.

**Section C** provided the budget tracking tool in Excel format.

**Section D** provided the business case for integrating the Budget Tracking tool within existing GRZ systems. Two options were evaluated.

Option 1 would require the modification of existing IFMIS to monitor climate change funds. The GRZ can either modify existing financial management systems to explicitly capture climate-related expenditures.

Option 2 would require the creation of a standalone budget tracking system to monitor climate change funds.

The evaluation results showed that option 1 was the preferred option for the following reasons:

- ▶ Modification of existing systems would allow for effective integration of climate finance with other elements of financial planning and monitoring;
- ▶ Modification of existing systems would not require substantive training and learning costs, as staff are already familiar with existing systems; and
- ▶ IFMIS team have confirmed that it is possible to modify the existing system to create trackers/codes to monitor climate finance.

