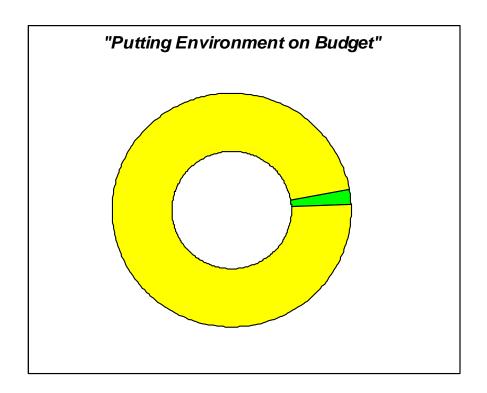


PUBLIC ENVIRONMENTAL EXPENDITURE REVIEW TO SUPPORT POVERTY ENVIRONMENT INITIATIVE **IN RWANDA**



FINAL REPORT





Table of contents

FOREWORD	iv
PREFACE	v
ACKNOWLEDGEMENTS	vi
ACRONYMS	vii
EXECUTIVE SUMMARY	ix
1. INTRODUCTION	0
1.1 Background	1
1.2 The objective and motivation for PEER	2
1.3 Methodology	
1.4 Limitations encountered	3
1.5 Structure of the Report	3
2. DEFINING THE BOUNDARY OF ENVIRONMENT FOR PEER IN RWANDA	4
2.1 Defining the terms environment and public environmental expenditure	4
2.2 Linking the national definition of environment to budgeting systems	5
3. CONTEXT OF PEER IN RWANDA	12
3.1 Policy and legal framework for environment in Rwanda	
3.2 The national and sectoral institutional framework for environmental management	
3.3 Priority programme and strategic actions for the sector	
3.4 Linking sectoral strategies to national development aspirations and budgets	
3.5 Public financial management, 2008-2012	
3.6 Growth and structural shifts of Gross Domestic Product	
3.7 Sources of funding: internally generated revenue and development assistance	
3.8 Environmental Fiscal Reforms	
3. 9 Development assistance in Rwanda	27
3.10 Flows from the Private sector	
3.11 Government current and projected structure of expenditure and its analysis	35
3.12 Lessons from previous PEERs	
4. PUBLIC EXPENDITURE REVIEW FOR ENVIRONMENT	41
4.1 Overall estimate of public environmental expenditure	41
4.2 Expenditure Analysis under ENR sector	42
4.3 Expenditure Analysis under MINAGRI	48
4.4 Expenditure analysis under MININFRA	52
4.5 Public expenditure analysis for MINICOM	55
4.6 Public expenditure analysis under MIJESPOC and MINEDUC	56
4.7 Public expenditure analysis under MINALOC	57
4.8 The role of MINECOFIN in influencing PEER	57
4.9 Comments on efficiency, effectiveness and sustainability	59
5. CASE STUDY 1: FINANCIAL FISCAL DECENTRALIZATION FOR ENVIRONMENT	Г 60
6. CASE STUDY 2: SEMI-AUTONOMOUS AGENCIES IN ENVIRONMENTAL MANAC	SEMENT69
6.1 Institutional mandates and niches of REMA and NAFA	69
7. LESSONS DRAWN FROM PUBLIC EXPENDITURE FOR ENVIRONMENT	75

8. CONCLUSION AND RECOMMENDATIONS	80
References	85
List of Tables	
Table 1: Example of categories of environment according to Organic Law No. 04/2005	5
Table 2: Environmental protection functions according to COFOG	
Table 3: Cross-country environmental protection expenditure	
Table 4: Programmes reviewed for public environment expenditure	
Table 5: Key policies, laws, strategies and institutions for environment	
Table 6: Some Ministries and their roles for environmental management	
Table 7: Rwanda State Revenues, 2005-2011/2012 (Billion Rwf)	
Table 8: Nominal GDP and revenue growth (Rwf Bn)	
Table 9: Some key indicators relevant for PEER under DPAF	
Table 10: ODA among EAC member states, 2005	
Table 11: Division of labour by current and proposed interventions	
Table 12: Top ten donors to Rwanda	
Table 13: National public expenditure by economic classification, 2005-2008	
Table 14: Proportion of actual expenditure for ENR under MINIRENA, 2005-2008	
Table 15: Analysis of MINIRENA's expenditure by economic classification, 2005-2008	
Table 16: Intra-sectoral absorption of actual total expenditure, 2007-2008 under MINERENA	
Table 17: Intra-sectoral budget execution rates, 2005-2008	
Table 18: Percentage of actual expenditure to programme on agricultural intensification	
Table 19: Budgets for environmental activities in MININFRA's annual work plan	
Table 20: Budgets under MINICOM that can benefit environment	
Table 21: Execution rates by districts for selected programmes, 2007-2008	64
Table 22: Planned and current formulae for disbursements under CDF	
Table 23: Divergence of unit costs among environmental interventions	
Table 24: Actual versus planned staffing levels in REMA	72
Table 25: REMA's budget, 2006-2009/10	
Table 26: Income sources of the Environment Protection Agency, Ghana 2002-2005	
Table 27: Problem and Solution Matrix	83
List of Figures	
Figure 1: Vertical build-up of the sector working group in relationship to the planning instruments at	1.0
each level	
Figure 2: Hierarchy of planning and relationship to MTEF structure and indicators	
Figure 3: Growth and structural transformation of GDP, 2000-2008	
Figure 4: Relationship between commitments and disbursements of external funds (US \$ M)	
Figure 5: Trends in ODA disbursement by modality	
Figure 6: Tracking Public Environmental Expenditure by source of funding, funding modality and reci	
institutions in Rwanda	
Figure 7: Trends of FDI flow to EAC member states, 2006-2008	34
Figure 8: Trends in balance between FDI and domestic investment	
Figure 9: Percentage variance between budgeted and actual expenditure, 2006-2008	
Figure 10: Relationship between tax revenue and recurrent expenditure, 2004-2008	
Figure 11: ENR's variances between budgeted and actual expenditure, 2006-2008	
Figure 12: Quarterly expenditure of ENR sector MINIRENA by economic classification, 2007 and 200	
Figure 13: Trends of ODA to agriculture, 1980-2005	49

Figure 14: Trends in grants handled by CDF and related intermediate percentages	
Figure 15: Ranking of CDF funded projects by their source of funding, 2002-2008 (n=799)	
Figure 16: Trends in the capitalization of CDF, 2002-2008	
Figure 17: Comparison in unit costs for land terracing in 5 locations	68
List of Boxes	
Box 1: Environmental activities not isolated in the COFOG classification	7
Box 2: Re-classification of economic affairs function by GoR and illustrative examples	8
Box 3: Priority programmes and strategic actions for the sector	17
Box 4: Thrust and targets of Rwanda's Vision 2020	18
Box: 5 Criteria for prioritizing public expenditure in Rwanda	21
Box 6: Key articles of the Law on State Finance and Property regarding aid management	22
Box 7: Environment as cross-cutting issue enters budgeting guidelines	59
Box 8: Districts' and Towns' Responsibility under decentralisation	60
Box 9: Closing public expenditure leakage	78
List of Annexes	
Annex 1: Terms of Reference	
Annex 2: List of People Interviewed	94
Annex 3: Classification of government functions in Rwanda	96
Annex 4: Classification of functions of government (COFOG) according to IMF, 2001	
Annex 5: Proposed 2008 Budget Allocations by functional areas	101
Annex 6-9 (Separate Excel sheet)	103

FOREWORD

PREFACE

ACKNOWLEDGEMENTS

Rwanda Environment Management Authority thanks several people who contributed data, information and comments for the baseline Public Environmental Expenditure Review.

The consultants who prepared the report were Cornelius Kazoora and Patrick Ogwang working under Glocoms Inc. USA. They were assisted by two research assistants: Cornelia Asiimwe and Ivan Kasozi.

Various local and central level institutions in Rwanda were instrumental and made significant contributions that made the work and outputs possible. It would have been difficult for the above team to carry out the review in time had it not been for the guidance and provision of budget data by Mr. Elias Baingana, the Director General of Budget, MINECOFIN.

Equally, the guidance, contributions and comments from David Smith (Manager, PEI, Africa), Louise Sorensen (Task Manager for Rwanda and Mozambique, PEI, Africa) and Elise Christensen (Country Focal Point, Rwanda and Mozambique, PEI, Africa) are all acknowledged. John Musemakweri (UNDP, Rwanda) provided the operational support to the review for which REMA is most grateful. Special thanks go to the members of PEI Project Steering Committee who provided information during the review and feedback at the validation workshop. Nicola Cantore of ODI is thanked for peer reviewing the draft report.

Finally, REMA acknowledges the past and continued support from the UNDP/UNEP funded Poverty Environment Initiative (PEI) under whose auspices the review was made.

ACRONYMS

ADF : African Development Fund AE : Agriculture et elavage AfDB : African Development Bank AGF : Agricultural Guarantee Fund

AU : African Union

BPR : Banque Populaire du Rwanda

CAADP : Comprehensive Africa Agriculture Development Programme

CDC : Center for Disease Control
CDF : Community Development Fund

CEPEX : Central Public Investment and External Finance Bureau

COFOG : Classification of functions of government

CSO : Civil Society Organization

DAD : Development Assistance Database

DDP : District Development Plan

DFID : Department for International Development
DPAF : Donor Performance Assessment Framework

E : Energie

EAC : Eau et assainissment EAC : East African Community

EDPRS : Economic Development and Poverty Reduction Strategy

EFR : Environmental Fiscal Reform

EIA : Environmental Impact Assessment

EICV : Household Living Conditions Survey

ENR : Environment and Natural Resources

ES : Etudes et surveillance FDI : Foreign Direct Investment FGD : Focus Group Discussion

FONERWA: National Fund for Environment

FY: Financial Year

GDP : Gross Domestic Product

GFS : Government Financial Statistics

GoR : Government of Rwanda
GR : Generateur de revenues
IA : Infrastructure administrative

ICT : Information and Communication Technology IDA : International Development Association

IMF : International Monetary Fund ISA : infrastructure sanitaire IT : Infrastructure de transport

LTSFF : Long Term Strategy and Financing Framework

LWH : Land Husbandry, Water harvesting and Hillside Irrigation project

MDG : Millennium Development Goals
 MDRI : Multilateral Debt Relief Initiative
 MIJESPOC : Ministry of Youth, Culture and Sport

MINAGRI : Ministry of Agriculture

MINECOFIN: Ministry of Finance and Economic Planning

MINEDUC : Ministry of Education

MINELOC : Ministry of Local Government

MINICOM: Ministry of Commerce
MININFRA: Ministry of Infrastructure
MINIRENA: Ministry of Natural Resources

MINISANTE : Ministry of Health

MINITERE : Ministry of Lands, Environment, Forestry, Water and Mines

MoU : Memorandum of Understanding
MTEF : Mid Term Expenditure Framework
NAFA : National Forestry Authority
NGO : Non-governmental Organizations

NISR : National Institute of Statistics of Rwanda

OAG : Office of Auditor General

OBL : Organic Budget Law of State Finances and Property

ODA : Overseas Development Assistance

OECD : Organization for Economic Co-operation and Development

OGMR : Rwanda Geology and Mines Authority

ORTPN : Rwanda Office of Tourism and National Parks

PAC Pollution Abatement and Control PE Protection de'l environment PEI Poverty and Environment Initiative PEM Public Expenditure Management Public Environment Review PER **Public Investment Committee** PIC PITT Public Investment Technical Team **PRSP** Poverty Reduction Strategy Papers

RARDA: Rwanda Animal Resources Development Authority

RBS : Rwanda Beurau of Standards RDB : Rwanda Development Board

REDEMI : Agency for mining exploitation and development REMA : Rwanda Environmental Management Authority RIEPA : Rwanda Export and Investment Promotion Agency

RRA : Rwanda Revenue Authority

RURA : Rwanda Utility Regulatory Agency SAGA : Semi Autonomous Governmental Agency

SMEs : Small and Medium Enterprises

SOE : State of the Environment

SONARWA : Société Nationale des Assurances au Rwanda

ST : Sites touristique
SWAP : Sector Wide Approaches
SWG : Sector Working Group
ToR : Terms of Reference
TWG : Thematic Working Group

UNCTAD : United Nations Conference on Trade and Development

UNDP : United Nations Development Programme

UNECE : United Nations Economic Commission for Europe

UNEP : United Nations Environmental Programme

USAID : United States Agency for International Development

VAT : Value Added Tax WB : World Bank

WFP : World Food Programme

EXECUTIVE SUMMARY

This report provides the first ever public environmental expenditure in Rwanda. It was written under the theme: "Putting environment on budget." The objective was to evaluate the appropriateness in the use of funds in the environment sector. It was supported by UNEP/UNDP funded Poverty-Environment Initiative. The intended outcome of the initiative is the integration of environment for poverty reduction into national policy and district planning, policy and budget processes to implement the Economic Development and Poverty Reduction Strategy (EDPRS) 2008-2010, Vision 2020 and the Millennium Development Goals.

The findings in this report are as a result of wide consultations within and across sectors, districts and the review of national documents and international literature from mid-September to end of November, 2009. The authors also benefited from being registered to access and analyze data from Development Assistance Database and Organization for Economic Co-operation and Development. These sources also enriched their findings.

From start, it was necessary to define environmental expenditure so as to determine the boundary for this review and possibly future ones. World experience points to the conclusion that 'this is not as straight forward as it seems'. Nonetheless, the consultants used four factors to define the boundary. They are national definition of environment, the classification of government functions, institutional mandates for environmental management and practices by other countries.

When the government's functional areas were reviewed, it was found that there is a functional area of environmental protection. However, many other aspects of environment fall under other government functional areas like agriculture, industry, infrastructure, to mention but a few. Accordingly, it was decided right from the start to focus the PEER on environment and natural resources sector, as overseen by MINIRENA¹ now, and across other sectors.

In Rwanda, the policy, legal and institutional framework for environment is both young and still evolving when compared with that of most East African Community member states, and other states in Africa. For a country that is committed to 'green' its economy, it will require a coordinated, and systematic approach to capacity building, planning and resource mobilization, and a blend with long term critical technical assistance within and across sectors. A coordinated approach within and across is strongly emphasized after finding that the spread of programmes and sub-programmes for environment are wide spread in several sectors.

Another finding is that as Rwanda's Gross Domestic Product (GDP) continues to grow, it is depicting intra and inter-sectoral shifts. The natural resource based GDP estimated at 35% is still the highest. But Rwanda has stretched its capacity to generate more revenue from new sources. It hopes to do so from the real GDP growth that will increase disposable income. The productive sector under which environment and natural resources falls is already prioritized for additional resources in future, particularly after the government completes its heavily funded infrastructure programme.

¹ MINIRENA has since then been divided into two ministries of Environment and Lands (MINELA) and Mining and Forestry (MINIFOR)

However, MINCOFIN recognizes that climate change induced impacts may slow down agriculture's GDP. But beyond that, they could also impact infrastructure and health. Thus, the cross-sectoral impacts of climate change should start to feature in the macro-economic framework by MINECOFIN, particularly where information permits.

Presently, Rwanda's dependence on aid is high with 49% of the total budget in 2009 expected to be financed by aid. The per capita Overseas Development Assistance of US\$ 64 and as a percentage of GDP of 25.6% are the highest among the East African member states. The government's preference is for grants over debts. As long as Rwanda is still a favorite recipient of aid in grants, it should use it to its advantage to also invest in environment.

Rwanda's private funding is growing although the proportion of environment could not be discerned. Foreign Direct Investment flows have steadily grown to even surpass that of giant Kenya for the first time in 2009 [UNCTAD, 2009]. Government should re-orient Foreign Direct Investment so that it too, can benefit environment. The potential for Foreign Direct Investment to increase even further has been improved by Rwanda's topping the global list of business regulation reformers [WB, IFC, 2009].

With guidance on budgeting by MINECOFIN, the variance between budgeted and actual expenditure is narrowing across all sectors. MINECOFIN has guided sectors to provide only 10% above their previous years' budget. But total tax revenue is not yet covering recurrent expenditure and the gap does not seem to be narrowing since 2004. That is leaving the country vulnerable to external support.

At macro level, transfers and subsidies have the highest expenditure between 2005 and 2008, at 25%. They are followed by goods and services (22%), wages and salaries (20%), capital development (18%), exceptional expenditure (10%), debt (8%) and finally arrears (1%). The proportion of development expenditure to total expenditure **on budget** has risen from, 11% in 2006 to 15% in 2007 and 23% in 2008.

It must be mentioned at this juncture that the budget execution reports cannot fully capture all the public expenditure for environment. This is because with regard to Overseas Development Assistance: (i) only 67% is recorded in the national budget, (ii) 45% is disbursed using GoR budget execution procedure and, (iii) 50% is disbursed using GoR financial reporting systems. Until all development expenditure forms part of budget reporting, it will be difficult to capture the true magnitude of environmental expenditure. Central Public Investment and External Finance Bureau which is mandated for it, does not classify it by government functional areas. Yet, it is through these that all expenditure on budget is captured.

Environment and Natural Resource sector under MINIRENA has not yet absorbed any public expenditure level to boast of. In 2008, it commanded only 1% of both recurrent and development expenditure on budget. The high development expenditure in 2006 and 2007 is attributed to the water and sanitation, which after 2008 was transferred to MININFRA. The ministries absorbing the highest development expenditure in 2008 were: MININFRA (39%), MINAGRI (16%), MINEDUC (15%), MINISTR (19%), MINALOC (9%), and MINECOFIN (3%). ENR under MINIRENA only absorbed 1%. The implication is that both manpower and activities that could benefit the environment are outside the sector. It equally conveys a mammoth task before the sector to engage others to put environment on budget using resources already allocated to them.

That is the most promising strategy of putting environment on budget. Government would also need to finalise the processes for the operationalisation of the National Fund for Environment so that it is used as an instrument for giving incentives for environmental management. This will complement Environment Fiscal Reform under the Investment Code and other laws.

With regard to intra-sectoral absorption of expenditure, it was found that conservation and protection of environment led in 2008, taking 40% of the sectors budget. It was followed by land planning and management (25%), forestry resources (11%), mining and geology (9%), and integrated water resources (4%). The parent Ministry took 11%.

It becomes apparent that integrated water resources management is the least funded. Unfortunately, the low funding coincides with the growing desire for irrigation. The two do not match unless irrigation is to be predominately funded under donor funded projects.

With regard to execution rates, they were found to have improved over time for both recurrent and development expenditure under the sector. But a few shortcomings need mention. They could have been better if all units were fully staffed so that some expenses e.g wages and salaries are not refunded to the central government and delays in procurement are fully overcome.

Further, both efficiency and effectiveness cannot be fully ascertained because value-for-money audits are yet to be fully institutionalized at Central Public Investment and External Finance Bureau through which much of development expenditure flows. Neither has the Bureau introduced the concept of 'unit costs' to rationalize expenditure among homogenous items. In 2002, the office of the Auditor General was able to audit 31.5% of all the public entities. For the above reasons, it will be worthwhile in future for government to invest in additional public expenditure monitoring tools. They are the public expenditure tracking surveys, citizen report cards and Community score cards.

The programme of intensification and sustainable agricultural production systems under MINAGRI utilized more than 5 times the whole budget of environment and natural resources sector in 2008. However, analysis of its broken down development budget for 2009/2010 shows that sub-programmes on Land Husbandry, Water harvesting and Hillside Irrigation project, watershed management, swamp reclamation and irrigation would be equivalent to 40% of entire environment and natural resources sector budget. Accordingly, agricultural sector should be engaged to sustain environment on its budget, and to even increase it. This is because evidence from 42 developing countries over 1981-2003 showed that 1% GDP growth originating in agriculture increased the expenditures of the three poorest deciles at least 2.5 times as much as growth originating in the rest of the economy. But MINAGRI should study whether its subsidized fertilizer programme is not a disincentive to sustainable land use management.

MININFRA's action plan for 2008 was not detailed in breakdown of its budget. But, going by budget for 2009/2010, its budget for improving and substituting biomass energy for the poor is equivalent to 70% of the forestry resources budget under environment and natural resources sector for the same period.

Further, MININFRA has spent and budgeted for sanitation and hygiene for schools. A more sustainable approach would be that MINEDUC budgets for such although it could solicit for technical backstopping from MININFRA. Only then would MINEDUC appreciate how to handle environmental issues associated with school populations. No doubt, the sectors' needs for environmental mainstreaming and budgeting will differ. Rwanda Environment Management Authority working closely with MINECOFIN should encourage them to come forward and declare their interests or challenges so that they can receive focused technical assistance. Failure to declare these within environment and natural resources sector and across all other sectors is one of the barriers to learning, improvement and sustainable development.

MINECOM has been spending on biodiversity conservation and development of standards, including those for environment. It has more scope to enlist the private sector for environmental compliance. This is particularly because the market to which Rwanda is promoting exports is becoming environmentally sensitive. MINALOC has included environmental protection as one of the areas to benefit from earmarked conditional grants to districts. It is so small (0.13% of 2009/2010 budget) that at best, it could be used to trigger additional resources rather than address environmental issues.

As the institutions close to the people, districts have strategic roles to make a difference in environmental management. Unfortunately, there is a mismatch between the funds allocated and responsibilities devolved to them. Districts utilized only 17.6% of the total budget in 2008. Some of the expenditure directly incurred by Ministries benefits them. Community Development Fund, as an instrument for channeling demand driven capital development to districts is cost-effective. Its intermediation costs are only 4%. Environment was found to rank the 5th preferred area out of eleven. MINELOC should expedite its costing for deepening decentralisation policy so that districts can get the right amount to deliver on their mandates.

As a Ministry overseeing both macro-economic planning and budgeting, MINECOFIN was found to have both the 'carrot and stick' to bring about improvement in public expenditure for environment and other sectors alike. The entry point for it lies in **the results-based approach to budgeting** it has introduced. This will then make it possible to assess the effectiveness of all public expenditure. The present focus on inputs, activities and outputs under the joint sector reviews are not enough to demonstrate the true progress towards the achievement of EDPRs targets. In other wards, it is possible to register increases in soil control measures or tree planting or registering land or making standards and regulations but when they are not related to the magnitude of the problems being addressed. If they fall short of that, Rwanda will not be making a positive score on environmental sustainability.

The planning, budgeting and Medium Term Expenditure Framework Guidelines 2008 which MINECOFIN introduced are a good rallying point for (i) link budget programmes to sector targets over a 5-year period, (ii) link budget programmes to sector activities, (iii) link sector programmes to EDPRS flagship programmes and their indicators. Sectors would need to be trained in their use so that they appreciate their rationale rather than use them to satisfy reporting procedures. Sectors have to also be trained by MINECOFIN in public expenditure reviews. At lower levels, it will be the sectoral action plans from which to track actual budgets for environment. The Smartgov from which public expenditure is being monitored does not yet reflect budgets for activities and outputs. In other words, PEER will continue to exert more demands than any other PER because of its cross-sectoral nature. MINIRENA and Rwanda Environment Management Authority should set aside sufficient resources for it in future.

1. INTRODUCTION

The Public Environmental Expenditure Review was commissioned to evaluate the appropriateness in the use of funds in the environmental sector and across other sectors. It is a baseline review that seeks to support the implementation of Environment and Natural Resources (ENR) Sector Strategic Plan, Joint Sector Reviews and Economic Development and Poverty Reduction Strategy in Rwanda.

1.1 Background

- 1. The Government of Rwanda, with the support of UNDP and UNEP through Rwanda Poverty and Environment Initiative (PEI) Project aims to enhance the contribution of sound environmental management to poverty reduction, sustainable economic growth and achievement of the Millennium Development Goals (MDGs). Led by the Rwanda Environment Management Authority (REMA), and the Ministry of Natural Resources and Environment (MINIRENA)², the intended outcome of the Rwanda PEI Phase II is the integration of environment for poverty reduction into national policy and district planning, policy and budget processes to implement the Economic Development and Poverty Reduction Strategy (EDPRS)³ 2008-2010. EDPRS operationalises the implementation of **Vision 2020** and the Millennium Development Goals (MDGs). The theme of the PEER for this report is "Putting environment on budget."
- 2. There are different policy instruments which the Government of Rwanda (GoR) can utilise to influence the understanding and behavior towards the environment. They include the Public Environmental Expenditure Reviews (PEERs). This PEER supports the efforts by the GoR to strengthen the sector wide approach. It is stipulated in the Environment and Natural Resources (ENR) Sector Strategic Plan, 2009-2012 thus:

"The first ever public expenditure review (PER) for ENR will be undertaken at the start of the implementation of this plan under the UNEP/UNDP funded PEI project. This will provide a baseline against which to benchmark and measure the fiscal performance and assess value for money." [pg 30]

3. According to EDPRS, environment is a sector in its own right and it also continues to be treated as a cross-cutting issue. One of the challenges the government faces in realization of **Vision 2020** is shortage of financing. For a sector like environment that has been cross-cutting, the task is that of establishing whether it is sufficiently funded. Public Environmental Expenditure Review is one of the many instruments government can use to get an understanding to this question. The government has communicated through Ministry of Finance and Economic Planning (MINECOFIN) the importance of such reviews generally through the National Planning, Budgeting and Medium Term Expenditure Framework (MTEF) Guidelines of 2008. They state:

"The objective of a PER is to analyse the extent to which policy priorities are effectively implemented in practice through budget allocation in order to increase the effectiveness and efficiency of public spending. Lessons learned from the PER can inform strategic planning and budget preparation by identifying ways to improve budget allocation to achieve faster progress towards a sector's policy objectives."

² Although this Report maintains reference to MINIRENA, the government of Rwnada has since then created two ministries out of this, namely Ministry of Environment and Lands (MINELA) and Ministry of Forestry and Mining (MINIFOR)

³ This is equivalent to the Poverty Reduction Strategy Papers in other countries (PRSPs).

4. As a follow up to the above commitment of using PERs, the Ministry of Finance and Economic Planning (MINECOFIN) included an objective of strengthening the PERs across all sectors in its Strategic Plan, 2008-2010. This report therefore, has been written bearing in mind the above unfolding opportunities in the country and recognizing that it is providing a baseline for analyzing the trends in the subsequent PEERs in Rwanda. Annex 1 provides the terms of reference under which this review was conducted. To support future PEER, a user-friendly manual has been made and submitted separately. It too, responds to the same terms of reference in Annex 1. This report is thus a case study to accompany the use of PEER Training Manual in Rwanda.

1.2 The objective and motivation for PEER

- 5. The objective of the consultancy was stated thus "to conduct a Public Expenditure Review which will help to evaluate the appropriateness in the use of funds in the environment sector⁴."There are several motivations for this PER in the context of Rwanda's development. The key ones are:
 - (i) to raise the profile of environment as a core asset for sustainable development and on which the majority of the people of Rwanda are still dependant for their livelihoods and for economic transformation,
 - (ii) to assess equity, efficiency and effectiveness of public spending for pro-poor growth,
 - (iii) to present a case for the environment and natural resources sector (ENR) to increase the share of the national budget centrally and across sectors in order to reach the EDPRS, MDGs and Vision 2020 targets
 - (iv) to demonstrate and illustrate the contribution of environment to national development and for private sector development
 - (v) to draw lessons, good and not good alike, which should guide the GoR in rationalizing public expenditure for environment.
- 6. Accordingly, this report has been written to provide the trends, patterns, practices, lessons and recommendations related to the following key aspects:
 - (i) allocation of public expenditure to the environment by source, that is, domestic, external, private, NGOs, community and households.
 - (ii) the degree of prioritization of expenditure to the environment within and across sectors
 - (iii) the actual expenditure for environment, its efficiency and effectiveness
 - (iv) the value-addition to institutional landscape for environmental management from the establishment of semi-autonomous government agencies (SAGAs)
 - (v) the best lessons from other sectors in Rwanda and elsewhere that should come to bear on PEER in Rwanda,
 - (vi) financial fiscal decentralization and its implications for environmental management,
 - (vii) the potential role of donors in enhancing environmental sustainability in Rwanda
 - (viii) monitoring and evaluating impact of public expenditure on EDPRS environment outcomes and,
 - (ix) strategies for putting and maintaining environment on budget in Rwanda.

Final Report

⁴ For purposes of this report, the term used in Public Environmental Expenditure Review, abbreviated as PEER

1.3 Methodology

- 7. The team reviewed several documents and reports of national and international character throughout the assignment. Visits to carefully selected institutional and respondents were made to obtain clarification of the information secured through reading, and to gather their views, lessons and other contributions. The list of those interviewed is given in Annex 2.
- 8. However, suffice to single out a few institutions visited and which will remain specially relevant for future PEERs. They are: (i) MINECOFIN (Directorate of Budgeting and Planning, Smartgov, External Aid Unit), (ii) Ministry of Local Government (MINELOC) and Community Development Fund (CDF) Secretariat, (iii) Ministry of Natural Resources (MINERENA) and Rwanda Environmental Management Authority (REMA), (iv) CEPEX, (v) Auditor Generals Office, (vi) Rwanda Revenue Authority (RRA), (vii) National Institute of Statistics of Rwanda (NISR), (viii)Districts and (ix) development partners. Further, the team was registered and was allowed to access data from Development Assistance Database (DAD) and the OECD. It enriched the analysis and description of findings.

1.4 Limitations encountered

- 9. Given that this is the first PEER in Rwanda, a lot of time was spent to determine the boundary of the sector for review. In other words, there was no precedent to go by. The matter was complicated by the fact that besides being a sector on its own, environment is also a cross-cutting issue in all the sectors.
- 10. Secondly, the PEERs in many other countries which were reviewed as part of writing the Inception Report could not be of great guidance either. They narrowly define environment and tend to focus on 'brown' issues mostly. The GoR wanted a picture that equally recognizes its dependence on the natural resources (the 'green' issues).
- 11. Finally, Rwanda is involved in many policy, legal, systems and institutional reforms at the same time. Alongside, there are changes, shifts and transfers of budget codes, programmes and subprogrammes. Staffs are also moving in and out of the public service. It thus cost the PEER team some time to first appreciate and contextualize these changes. The implications the above have for interpretation of the findings are mentioned throughout the report. It must also be stated in the interest of future PEERs that there will always be changes in the way the government operates. The onus will be on the PEER teams to first map out these changes.

1.5 Structure of the Report

12. This report is presented under 8 chapters, with the first one as the Introduction. Chapter 2 sets the scene by defining the boundary of environment and therefore contextualizing this PEER. Chapter 3 gives the national context while Chapter 4 provides the PEER. Chapter 5 is the case study on fiscal decentralisation for environment, and Chapter 6 is the case study on semi-autonomous agencies in environmental management. In Chapter 7, the summary of emerging lessons is given and Chapter 8 provides the conclusion and recommendations.

2. DEFINING THE BOUNDARY OF ENVIRONMENT FOR PEER IN RWANDA

The boundary of environment for PEER in Rwanda was based on four considerations namely: national definition of environment, the classification of government functions, institutional mandates for environmental management and practices by other countries.

2.1 Defining the terms environment and public environmental expenditure

- 13. The starting point for a PEER was to define 'environmental expenditure'. Experience across the world points to the conclusion that 'this is not as straight forward as it seems⁵'. For Rwanda, the most important factor that guided the team in establishing the boundary for the PEER is the national definition of environment. It is on the same basis that clarification was made on the definitions of the sector and sub-sectors⁶.
- 14. In order to confirm to the ToR, part of the analysis covered environmental expenditure met by non-state actors (e.g the private sector) or which could be met by them. However, since this is a public expenditure review, emphasis was put on public rather than private institutions. Accordingly, the general definition of public environmental expenditure is:

"Expenditure by **public** institutions for purposeful activities aimed directly at the prevention, reduction and elimination of pollution or any other degradation of the environment resulting from human activity, as well as natural resource management activities not aimed at resource exploitation or production" (Auphil Swanson and Leiv Lunderthors, 2003)

15. The term environment is defined in the Organic Law No. 4/2005 determining the modalities of protection, conservation, and promotion of environment in Rwanda as follows:

"Environment is a diversity of things made up of natural and artificial environment. It includes chemical substances, biodiversity, as well as socio-economic activities, cultural, aesthetic and scientific factors likely to have direct or indirect, immediate or long term effects on the development of an area, biodiversity and on human activities."

16. The above law goes a step further to list specific examples of categories of environment as summarized in Table 1. It is evident from the above that the term environment encompasses; (i) the environment and natural resources (ENR), (ii) the artificial environment (i.e. built-up, or man-made environment), and (iii) the social, economic, cultural, and other activities that impact on the environment and human activities. Put in another way, Rwanda's definition of environment has three pillars of sustainable development, namely, environmental, economic and social pillars.

⁵ Anil Markandya, Kirk Hamilton and Ernesto Sanchez-Triana [2006]: Getting the most for the Money-How Public Environmental Expenditure Reviews can help.

⁶ This was to answer part 3.3.3 and 4.1.6 in the ToR

Table 1: Example of categories of environment according to Organic Law No. 04/2005

Category of environment	Specific examples			
A: The natural environment	i) Soil			
	ii) Water			
	iii) Air			
	iv) Biodiversity			
	v) Landscape ⁷			
	vi) Site			
	vii) Natural Monument			
B: Human environment				
B:1: Those that are destructive	i) Pollutants			
	ii) Waste			
	iii) Hazardous waste			
	iv) Installation			
	v) Pollution			
B:12: Those that are not destructive	Activities that enrich or reduce adverse effects of the			
	environment e.g afforestation, technologies, etc			

Source: Official Gazette of the Republic of Rwanda No. 4/2005

- 17. Within the planning framework, the GoR now takes environment as a sector in its own right on one hand, and as a cross-cutting issue on the other in all other sectors. This institutional arrangement also partly influenced the choice of priorities for consideration under this review. It is the same institutions that will continue to coordinate PEERs.
- 18. In order to implement its policies, government chooses how it aligns its Ministries for the purpose. At the moment, MINIRENA is the parent ministry overseeing ENR sector. It is organized under five programme areas of; (i) land, (ii) environment, (iii) integrated water resources management, (iv) forestry and (v) geological surveying and mining in addition to the ministry headquarters. Without compromising the need to critically assess the above programme areas, the PER took all of them collectively as a sector of ENR.
- 19. In addition to the above, the team reviewed some programme areas of other ministries and districts to establish how they prioritize and budget for environmental issues.

2.2 Linking the national definition of environment to budgeting systems

20. The practical way to trace and analyze environmental expenditure was to establish how the above national definition of environment links to the budgeting system. That was done by identifying the government's **functional areas** of budgeting and evaluation of budget execution.

5

Final Report

⁷ This includes mountains, forests, plain lands, valleys, swamps and lakes

21. Annex 3 gives the full break-down of the GoR's functional areas. The classification builds from the classification of Government Expenditure (COFOG) of the International Monetary Fund (IMF) of 2001 in Annex 4. It is adopted by many countries to allow cross country comparisons. It is observed in that Annex 4 that one of the functional areas is environmental protection. According to the IMF, the breakdown of that function is given under numbering 1-6 in Table 2. Number 7 in the table was proposed by Lidia Cabral and Dulcidio Fransisco in their study for Mozambique. The team also adopted their proposal.

Table 2: Environmental protection functions according to COFOG

	vironment protection and environment	Description of function
1.	Waste management (COFOG 05.1)	Collection, treatment and disposal of waste
2.	Waste water management (COFOG 05.2)	Sewage system operation and waste water treatment
3.	Pollution abatement (COFOG 05.3)	Activities relating to ambient air and climate protection, soil and groundwater protection, noise and vibration abatement and protection against radiation.
4.	Protection of biodiversity and landscape (COFOG 05.4)	Activities relating to the protection of fauna and flora species, the protection of habitats (including the management of natural parks and reserves) and the protection of landscapes for their aesthetic values.
5.	Research and development (COFOG 05.5)	Administration of applied research and experimental development on subjects related to environment protection; operation of government agencies engaged in applied research and experimental development on subjects related to environment protection; support in the form of grants and loans for applied research and experimental development on subjects related to the environment protection undertaken by non-governmental bodies such as research institutes and universities.
6.	Environment protection affairs and services n.e.c (COFOG 5.6)	Administration management, regulation, supervision, operation and support of activities such as formulation, administration, coordination and monitoring of overall policies, plans, programmes and budgets for the promotion
7.	Environment promotion activities	Activities which promote sustainable use of natural resources and which prevent or mitigate the negative environmental externalities of non-environmental development projects that potentially deplete natural resources or generate pollution. Examples would include investments in renewable sources of energy, or in sustainable agricultural technologies.

Source: IMF [2001]: Government Financial Statistics Manual, 2001 and Lidia Cabral and Dulcidio Fransisco [2008]

22. When one looks at the national definition of environment and categorization in Table 1, one has to go beyond the sub-functions in Table 2 to maintain the national definition. For example, some of the key aspects of environment according to the GoR fall under the COFOG functions of agriculture, industry and commerce, fuel and energy, land, housing and community amenities, and water and sanitation and youth, culture and sports. This is equally recognized by IMF with its COFOG. (See Box 1). Going only by COFOG classification could underestimate public environmental expenditure. Table 3 shows how environmental expenditure solely based on COFOG could be grossly understated.

Box 1: Environmental activities not isolated in the COFOG classification

Activities not isolated in the classification

There are a number of activities which occur in two or more fundamental categories and for which COFOG provides incomplete information. These include protection of the environment, space technology, and water use. Users of COFOG in these subjects will need to examine the functional classes listed below.

Protection of the environment

This group covers research and other aspects of environmental protection. It includes research into the causes and effects of the pollution of the air, soil, and substrata by solid waste disposal, radiation, noise, and so forth. The following classes contain relevant information.

Functional category	Related aspect
Community development affairs and	→ Planning of environmental protection as
services	part of community planning
Sanitary affairs and services, including	→ Waste collection and disposal: sewage;
pollution abatement and control	pollution control and abatement
	programmes
 Supporting and recreational affairs and 	→ Setting aside of parks, beaches, etc
services	
Agricultural land management affairs and	→ Conservation and reclamation of
services	agricultural land
Forestry affairs and services	→ Conservation of forests and
	reafforestation
Fishing and hunting affairs and services	→ Management of water resources
Mining and mineral resource affairs and	→ Pollution control in mining
services, other than fuels	
Manufacturing affairs and services	→ Pollution control in manufacturing

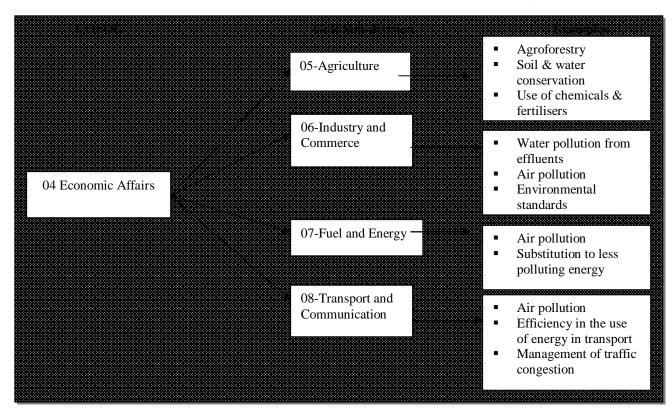
Source: IMF [2001]: Government Financial Statistics Manual, 2001

Table 3: Cross-country environmental protection expenditure⁸

Country	Rwanda	Uganda	Mozambique
Year of reporting	2008	2006	2007
% expenditure on	1.2%	0.1%	1.3%
environmental protection			
Source	MINECOFIN	MFPED	Lida Cabral &Dulcidio
			Francisco

23. IMF recognizes that in as much as there may be a function area on environmental protection, there are activities of environment which are not well isolated in the classification, and which cut across two or more functional categories. The examples in Box 2 testify to this.

⁸ Based on COFOG



Box 2: Re-classification of economic affairs function by GoR and illustrative examples

- 24. On the basis of all the above, the team identified the programme and sub-programmes under MINIRENA and other sectoral institutions within the budgeting frameworks that should form baseline PEER in Rwanda. They are given in Table 4. The PEER team holds the conviction that once the institutions overseeing those programmes and sub-programmes put environmental aspects on the budget, the GoR will have created the minimum catalytic role to maintain them on the budget.
- 25. The following factors led to the choice of programmes and sub-programmes shown in Table 4:
 - (i) they are either already having some environmental activities or their budgets could in future be oriented to address environmental activities. For example, community development planning (01) under Community Development Programme (06) of MINALOC is a good entry point for mainstreaming and budgeting for environmental issues. It was thus important to test out whether that is actually done. Likewise, it was also important to test out whether EIAs are carried out for infrastructural activities for water supply, irrigation, energy etc
 - (ii) the same programmes and sub-programmes are attracting public funds under the Law determining the state finances and it is through them, that one can track environmental expenditure over time even though some of them were not found with any environmental expenditure under the review⁹.

⁹ It is important to bear in mind that this is a baseline PEER. For this reason, it equally provides guidelines and clues that should inform future PEERs in Rwanda

- 26. A noticeable feature in Rwanda is that often the projects' focus determine the sub-programme classification (e.g Monitoring of execution of multilateral environmental agreements and relations with decentralized entities under MINITERE had a sub-programme code (04) of its own. Now that the project is concluded, that sub-programme code does not feature subsequently.
- 27. Owing to these changes (end of programmes, start of new programmes, and merger of programmes) one has to be particular in identifying the right codes used in accounting and budgeting under which expenditure can be tracked and compared across years.
- 28. There are some implications and recommendations to draw at this juncture, namely:
 - (i) the COFOG as used now is very insufficient in capturing expenditure for environment, more so in developing countries like Rwanda where the dependence on the ENR is so great
 - (ii) environmental issues cut across several sectors and institutions, hence the need for those sectors and institutions to have their capacity built for environmental mainstreaming and budgeting
 - (iii) the same sectors and institutions will be the ones to have their capacity built for PEER, in addition to MINECOFIN whose functions of planning and budgeting summarises what happens across all sectors
 - (iv) both intra-and inter-sectoral coordination will be critical for maintaining environment on the sustainable development agenda in Rwanda, including advocating for rational allocation and utilization of public expenditure.
 - (v) MINECOFIN should design a training programme on PER for all sectors so that they have consistency and uniformity in analysis, interpretation and presentation. This will help it realize the objective of strengthening PERs in its Strategic Plan much faster than anticipated.
 - (vi) future PEERs should always endeavor to first map institutional systems and policy reforms that have taken place since the last PEER.

Table 4: Programmes reviewed for public environment expenditure

			annines reviewed for public environment expenditure		
MIN	Prog				
09	INISTRIES MINAGRI				
07	02		nsification and development of Sustainable Production Systems		
	02	01	Sustainable management of Natural Resources and Soil Conservation		
		02	Integrated system of Intensive agricultural and livestock production		
		03	Marshlands development		
		04	Irrigation development		
		05	Supply and use of agricultural inputs and mechanization		
		06	Food security and vulnerability management		
10	MIN	ICON			
	02	Pron	notion of Trade and Industry		
		01	Monitoring of polices of trade and industries		
		05	Promotion and oversight of key industries		
		07	Establishment and maintenance of quality standards		
15		ESPO			
	09		notion and development of sports and leisures		
10	2.572	01	Promotion of mass sports and entertainment		
18		INFR			
	02	Ener	C)		
	03	02	Improving access to energy sing and Urban development		
	03		Promotion of Imidugudu		
		06	Improvement of Informal neighborhoods		
22	MIN		RE (MINIRENA)		
22	01		ning and management of land		
	01	01	Management support		
		02	Policy programme for land management		
		03	Land administration		
		04	Cartography and land measuring and settlement planning		
		05	Expropriation and optimal use of land resources		
	02		ronmental conservation and protection		
		01	Legal, Policy, Regulatory and Institutional framework for management		
		02	Sustainable management of Ecosystems for Income generation		
		03	Pollution management		
		05	Management support to REMA		
	03	Fore			
		01	Management of Forestry resources		
		02	Efficient use of forestry resources to provide energy and generate income		
		03	Forest management		
		04	Timber transformation technologies		
		06	Permanent Secretariat of the National Forest Fund		
		07	Forest policing division		
	06	08	Administration and finance division		
	06	05	er and sanitation Sanitation		
		12	Water sector policy		
		13	Integrated management of water resources		
		14	Portable water infrastructure		
	06		ogical surveying and mining		
	00	01	Mines, Quarries and geology		
23	MIN	ALO			
	04		munity Development		
	, ·	02	Community Development Planning		
		03	Community mobilization and agglomeration		
		04	Vision 2020 Umurege programme monitoring		
		05	Community Development Fund (CDF)		
l l		-			

Table 4: Programmes reviewed for public environment expenditure con't

B: SEN	II AUTO	ONOM	OUS GOVERNMENT AGENCIES				
			EMA				
		N.	AFA				
C: DIS	C: DISTRICTS						
	Good	Good governance and social affairs unit					
	Prog		Sub-prog				
	04	04 Good governance and decentralization (MINALOC					
	02 Decentralization and capacity building						
	06		nunity Development (MINALOC)				
		01	Community development planning				
		02	Community mobilization and agglomeration				
		03	Coordination projects and Public Investment Plan				
		04	Jumelage				
			nomic development and employment promotion unit				
	10		sification and development of Sustainable Production Systems (MINAGRI)				
		01	Sustainable Management of natural resources and soil conservation				
		02	Integrated system of intensive agricultural and livestock production				
		03	Supply and use of Agricultural inputs and mechanization				
		04	Irrigation development				
		05	Food security and vulnerability management				
	13		ing, policy review and development partner coordination				
		01	Management support				
			e, land, housing and town planning unit				
	14		planning, management and Administration (MINITERE)				
		01	Effective land administration services				
	1.5	02	Land use planning and management services				
	15		onmental Conservation and protection (MINITERE)				
		01	Sustainable management of Ecosystems for Income generation				
	1.0	02	Pollution management				
	16		t resources management				
	1	01	Management of forestry resources				
	17	02 Carls	Efficient use of forestry resources to provide energy, generate income and support livelihoods ogical survey and mining (MINITERE)				
	1/	01	Performance, productivity and value addition in the mining sector enhanced and based on				
		01	environmentally sustainable practices				
	18	Wate	r and sanitation (MINITERE)				
	10	03	Access to water for economic purposes				
		03	Access to hygienic sanitation services				
	20		zy (MININFRA)				
	20	01	Improvement of Access to energy				
	 	02	Diversification of energy sources				
	<u> </u>	03	Managing energy costs				
	21		at and Urban development (MININFRA)				
	21	03	Support to urban plan development				
		04	Promotion of Imidugudu				
		05	Amelloration des Quartiers Informels				
		06	Cross-cutting issues: AIDS/Environment/ gender				
	1	00	Cross cading abaces, rands Environmente gener				

3. CONTEXT OF PEER IN RWANDA

3.1 Policy and legal framework for environment in Rwanda

An exploration of the policy, legal, institutional and planning framework was necessary for this PEER. It clarified expectations, roles and mandates in the management of public affairs, including using public funds for environmental management. That framework in Rwanda is both young and still evolving when compared with that of most East African Community (EAC) member states, and other states in Africa. For a country that is committed to 'green' its economy, it will require a coordinated, and systematic approach to capacity building, planning and resource mobilization, and a blend with long term critical technical assistance within and across sectors.

- 29. This chapter has been written to describe the context in which the findings of the PEER should be construed. At the same time, it benchmarks key policies and laws for environmental management, the strategic and cooperating institutions in the sector and current knowledge which will inform subsequent PEERs.
- 30. With the above in mind, the PEER review team has benchmarked the following in this chapter.
 - (i) the national institutional framework for environmental management
 - (ii) the policy and legal framework for environmental management
 - (iii) the systems development, including financial expenditure management
 - (iv) environmental priorities of the sector,
 - (v) the linkages between planning and budgeting for environment¹⁰.
 - (vi) sources of funding: internal and external
- 31. The GoR has formulated several polices on specific aspects of environment and development. To give effect to their implementation and enforcement, it enacts laws. In some cases, new policies are being proposed as a basis to revise old laws. Sectors derive their obligations to plan and budget for their activities from the laws (Table 5). In addition, the GoR implements several multi-lateral environmental agreements (MEAs), and regional commitments.
- 32. As highlighted earlier in Chapter 2, the Organic Law N°. 04/2005 determining the modalities of protection, conservation and protection of environment in Rwanda is the apex legislation on environment. The aspects it covers have been summarized in Table 1. On the other hand, Law N°. 16/2006 established REMA as the Authority in charge of supervision, monitoring, and ensuring that issues relating to environment receive attention in all national development plans.
- 33. The same law obligates REMA under Article 5 "to work hand in hand with other institutions, national and international organizations" in execution of its mandate. This is important because other legislations specify the mandates of those institutions. There are other policies and legislations in the pipeline like those relating to sustainable management of marshlands, and biodiversity (See Table 5).
- 34. The above setting prompted the PEER team to assess the capacity of REMA, both in human and funding to deliver on its mandate on one hand and to mobilize other institutions for environment on the other. (See Chapter 6).

¹⁰ This was done to set the scene for explaining progress and implications in linkage of public expenditure to policy objectives. (See 3.3.5 of the ToR)

35. Suffice to mention that all the institutions with which REMA is working will need to adopt a coordinated and systematic approach for capacity building, environmental mainstreaming and resource mobilization. In the short run, and as the government addresses the human capacity gaps, it will pay to tap critical technical assistance particularly for Ministries whose use of public funds could add value to sustainable development.

Table 5: Key policies, laws, strategies and institutions for environment

Poli	cy	Legislation	Strategic plan	Key implementing agencies
				agencies
	National environmental policy	Organic Law N°. 4/.2005	5 year Strategic Plan for the ENR sector, 2009- 2013	MINIRENA, REMA
2.	Land Policy 2003	Organic Law N°. 8/2005		MINIRENA
	Sectorial Policy On Water And Sanitation	Water Act	7- year Government Program	MINIRENA, MININFRA
4.	Forestry Policy (Draft)	Forest law N° 47/88 of 05/12/1988		MINIRENA, NAFA, REMA
	Mining & Geology Sector Policy		7- year Government Program	MINIRENA, REMA, REDEMI
6.	Urbanisation and Human Settlement Policy			MININFRA
7.	Energy Policy			MININFRA, RURA, MINIRENA
8.	National Policy On Promotion Of Cooperatives	Law N°. 31/1988		MINICOM, National Cooperative Commission of Rwanda
9.	National Public Investment Policy		5 year Public Investment Programme, 2009-2013	MINECOFIN, PIC, PITT
10.	Fiscal and Financial Decentralization Policy	Fiscal Decentralization Law 2006, National Finance Law	Over 4 years strategic planning, beginning in 2006.	MINALOC, MINECOFIN
11.	Wildlife Policy	Organic Law N°. 04/ 2005		MINIRENA, MINICOM, RDB, Rwanda Wildlife Agency, Rwanda Tourism Agency
12.	Biodiversity Policy	Presidential Decree N°. 30/01 August, 2004, Organic Law N°. 04/2005, Law N°. 16/2006		REMA, NAFA, RARDA ORTPN
13.	Marshlands	Presidential order No.37/2003		REMA

3.2 The national and sectoral institutional framework for environmental management

- 36. There are two supportive approaches to environmental management in Rwanda. They are:
 - (i) taking environment as a sector in its own right, overseen by MINIRENA, but forming part of the productive sector. The productive sector is composed of agriculture, industry and commerce, environmental protection and Community Development Fund (CDF)
 - (ii) taking environment as a cross-cutting issue, and for which all institutions are expected to take responsibility to avoid pollution and degradation.
- 37. MINIRENA is the recently transformed Ministry from the previous MINITERE absorbing ENR sector budget with its units. The change was made in 2008. Alongside that change, there were implications for public expenditure. First, Water and Sanitation which fell under MINITERE was transferred to MININFRA. However, MINITERE, now MINIRENA maintained the programme for Integrated Water Resources Management. The Agency to take up this programme has not been formed, implying that its financial resources will continue to flow through the Ministry. Table 6 provides some key Ministries with roles for environmental management.

Table 6: Some Ministries and their roles for environmental management

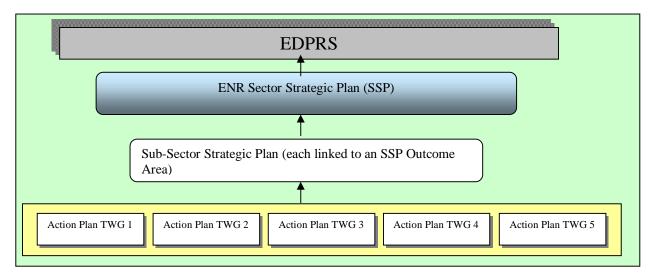
Ministry	Some core functions	Some key outputs (2009/2010)	
1. MINAGRI	 Develop and disseminate the sector policies, strategies and programmes Regulate the sector and related sub-sectors 	 Increase the area sustainably managed and protected against soil erosion, through terracing, agro-forestry from 40% to 50% Promote the use of watershed management and hillside irrigation technology 	
2. MINICOM	Regulate the sector and sub-sectors	Relevant quality standards attained by enterprises	
3. MININFRA	 Formulate and disseminate policies, develop sub-sector strategies and programmes Support infrastructure development programme under the decentralized structures like respective sub-sectors. 	Increase energy access Develop sanitation infrastructure and services for waste management in Kigali	
4. MINIRENA	 Develop and disseminate the sector polices, strategies and programmes Regulate the sector and related sub-sectors Monitor and evaluate the implementation of sector and sub-sector polices, strategies and programmes 	 Data collection, planning, monitoring and evaluation of natural resources and environmental management well done Protection of environmental and optimal and rational use of natural resources for sustainable development. 	
5. MINALOC	Monitor and evaluate the implementation of sector and sub-sectors policies, strategies and programmes	District development projects and community development projects to be financed through CDF	
6. MINECOFIN	 Monitor and evaluate the implementation of economic policies, strategies and programmes Mobilise and manage external and internal resources for the country 	 Good sector policies and strategic plans in place across sectors Improvement of revenue administration and expansion of tax base by 0.2% of GDP 	

Source: Official Gazette of the Republic of Rwanda [2008]: Law determining the State Finances for Fiscal Year 2009/2010 with respect to the East African Budget Calendar

- 38. Finance is a scarce commodity over which every institution with a right is open to compete. Environment is a young sector from the point of view of claiming a share of the national budget in its own right. The first EDPRS treated it as a cross-cutting issue making it difficult to be visible in expenditure. According to MINECOFIN, sectors and their institutions have to negotiate among themselves how to prioritise their budgets after it has provided budget ceilings. It does not dictate to them.
- 39. EDPRS II has given the ENR sector a chance, to be recognized as a stand alone sector, in addition to remaining a cross-cutting issue. It thus became necessary to review the extent to which ENR sector can stand up to that challenge of competing for scarce resources and using them effectively for environment. Success in that regard would have two benefits, first, additional resources to the sector; and second, sectors using some of their resources to deliver on environmental objectives.
- 40. Up to early 2010, MINIRENA was spearheading the building of ENR sector with sub-sectors of: (i) lands, (ii) integrated water resources, (iii) environment, (iv) mining and, (v) forestry. It is closely supported by REMA and development partners. However, the government has carried out further institutional reform whereby the first 3 functional areas have been placed under a new ministry of Environment and Lands while the other 2 functions now fall under a new ministry of Mining and Forestry. This information is relevant to guide future PEER. Otherwise this report continues to refer to MINIRENA.
- 41. As a Ministry, MINIRENA was responsible for policy oversight, monitoring and institutional support. It also coordinated the implementation of the integrated water resources management because the proposed Water Resources Management Agency is yet to be formed. Otherwise, there are semi-autonomous government agencies (SAGAs) under the Ministry charged with specific mandates. They are National Land Centre (land), NAFA (forestry), OGMR (mining) and REMA (environment). The Ministry (MINIRENA) and each SAGA are considered as budget agencies.
- 42. With support from UNDP-UNEP funded PEI, REMA has been building strategic partnerships with other institutions to champion environmental mainstreaming, including budget allocation. They are MINECOFIN, MININFRA, MINAGRI, MINICOM and MINALOC. It is for this reason that the key-sub-programmes that have been the focus of this review are falling under these Ministries. There are two Ministries which the team would recommend to be brought on board in near future. They are; the Ministry of Health (MINISANTE) and Ministry of Education (MINEDUC). The first uses a lot of budget resources for environmentally related diseases (e.g water-borne diseases, acquired respiratory infections, etc) while the second would cause behavioral change at early age among the youth through say, curriculum reform that integrates environmental aspects.
- 43. The ENR sector has now constituted a Sector Working Group (SWG) and tasked itself to make a sector-wide approach (SWAP). The rationale is to overcome costly, uncoordinated and fragmented approaches and to build greater synergies for environmental management and resource mobilization. It is hoped that ultimately, the sector will present and argue a case for a sector wide budget support. In future, it would be this group to coordinate and oversee the PEERs. The five thematic working Groups (TWG) of SWG are:

- TWG 1 Equitable, sustainable and productive management of land resources
- TWG 2 Water resources managed in an integrated, equitable and sustainable way
- TWG 3 Forest and biomass resources developed and sustainably managed
- TWG 4 Mineral resources are sustainably used
- TWG 5- Critical ecosystems rehabilitated and protected to enhance conservation and sustainable utilization of biodiversity
- 44. As it can be seen in Figure 1, the TWGs would vertically contribute to sub-sector plans, then to sector plans and finally to EDPRS. To generate higher impacts, the sector would need to coordinate with others for those aspects that cut across all of them like climate change, information gathering and networking, and environmental reporting. It would also need to proactively engage them to appreciate their actions for sustainable development and for them to use their existing budgets for the purpose. Unfortunately, this is not apparent in the structures of its work. That will not create the needed institutional momentum to put environment on budget. MINIRENA needs to revisit this issue immediately.
- 45. However, it is gratifying to mention that subsequent to the PEER, MINECOFIN has started mainstreaming environment in Public Investment Plans that absorbs a lot of public funds. It wants the originating sectors to address environmental issues as an integral process of carrying out the feasibility studies.

Figure 1: Vertical build-up of the sector working group in relationship to the planning instruments at each level



3.3 Priority programme and strategic actions for the sector

46. The ENR Sector Strategic Plan 2009-2013 has identified 8 priority program areas, and linked them to MTEF. They are summarized in Box 3. However, there are other aspects of environment which can best be handled under various policies, legislation strategies and institutions elaborated in Table 5. As a sector, ENR is striving for its own resources. As a lead sector, it is also challenged to ensure that other sectors mainstream environment on one hand, and reflect the budget line for the implementation of mainstreamed activities.

47. Like all other sectors, ENR sector should use Joint Sector Reviews to draw lessons and to identify emerging lessons. It should be bold to communicate and defend them. For example, during the October Joint Sector Review, many participants alluded to the need for climate proofing of public investments. This has to be formally tabled for discussion and the likely expenditure consequences assessed.

Box 3: Priority programmes and strategic actions for the sector

The ENR sector strategic priorities will be implemented in 8 programmes:

- (i) Sustainable land management: focusing on improving land administration and land tenure security (through land registration services) and improved land use planning;
- (ii) Sustainable Integrated water resources management- Watershed protection, Water quality monitoring, Water resources inventory; and regulating its utilisation;
- (iii) Sustainable management of forest and biomass resources forest cover change, access to forest and biomass products, Alternatives to wood and biomass products for energy sources and promoting agroforestry;
- (iv) *Ecosystems conservation & improved functioning* degraded ecosystems rehabilitated/ conserved, biodiversity hotspots and fragile ecosystems protected, proportion of total land surface covered by protected areas;
- (v) Sustainable mining and mineral exploitation Mineral mapping and research, mining and mineral processing technology improvement; and control of environmental pollution from mining. Emphasis will be put on institutional capacity building for OGMR and for smallholder (artisanal) miners, as well as investing in value-addition through processing and export marketing;
- (vi) Environmental sustainability of development policies, programmes and projects at national and local level: Environmental mainstreaming across sectors particularly Agriculture, Energy, Infrastructure, Industry, decentralization for vertical integration and Finance and Planning for effective cross sectoral coordination;
- (vii) Policy, legal & regulatory framework for ENR management ENR legal & regulatory regimes harmonised with other EAC Countries;
- (viii) *Institutional Capacity of ENR Governance* Improving sector programming & sectoral coordination (ENR SWAP developed & operationalised); Financing for & financial management in the ENR sector;

Source: MINIRENA [2009]: For the Environment and Natural Resources Sector (2009-2013)

48. All in all, the key challenge before ENR SWG is to maintain environment on development agenda as a necessary pre-requisite to justifying public funding. Part or much of the answer lies in how it identifies and justifies interventions which fall on public spending priorities list (Box 3). A noticeable feature is that the last 3 priorities in Box 3 cut across all sectors, implying that the ENR sector should not marginalize them in its TWGs. A thematic working group for engaging other sectors would add value to national understanding of environmental issues.

3.4 Linking sectoral strategies to national development aspirations and budgets

Linking EDPRS, sectoral and district could be possible under the National Planning, Budgeting and MTEF Guidelines of 2008. This is predominantly because the MTEF structure is the mirror image of the planning structure. However, sectors need to be trained on how to use them for uniformity and consistency in analysis, interpretation and reporting.

- 49. This section describes how sectoral actions have to be understood in the broader national framework. In 2000, Rwanda completed its Rwanda's **Vision 2020** framework following consultations with key stakeholders. It envisages Rwanda as a middle income economy with a healthier and better educated population, life expectancy, increasing to 5 years, full literacy and income per capita income of US\$ 900 by 2020. (See Box 4).
- 50. On the other hand, the EDPRS is a medium-tem strategy for 2008-2012 aimed at putting Rwanda on the path to meeting the MDGs and the **Vision 2020** targets. It comprises three "flagship themes: (i) Sustainable growth for jobs and exports; (ii) Vision 2020 *Umurenge*, and (iii) Good governance.
- 51. Sustainable growth for jobs and exports flagship aims to boost growth by enhancing competitiveness, private sector investment and innovation, agricultural productivity, exports and ICT competences.

Box 4: Thrust and targets of Rwanda's Vision 2020

Strategic objectives

(i) Maintenance of macroeconomic stability, (ii) Transformation from agrarian to a knowledge-based economy; (iii) Fostering entrepreneurship and creating a productive middle class; (iv) Wealth creation and reduction of aid dependency.

Pillars

(i) Good governance and a capable state; (ii) human resource development, with emphasis on science technology; (iii) Private sector innovation with private sector-led development; (iv) Infrastructure development; (v) Productive high value and market-oriented agriculture; and (vi) Regional and international integration.

Selected Performance targets

(i) Annual growth rate of 8%; (ii) Population growth of 2%, and (iii) Investment rate of 30% of GDP, with private sector accounting for most of it.

Key Outcome outputs

(i) 100% literacy by 2020; (ii) Infant mortality halved (50 per 1000 births) by 2020; (iii) Life expectancy increased by 6years to 55 by 2020; and (iv) Income inequality reduced by 25% to 0.35 by 2020.

Source: Government of Rwanda, Vision 2020

52. On the other hand, the flagship of Vision 2020 *Umurenge* addresses extreme poverty and vulnerability in the rural areas. It has three components: (i) public works aimed at creating off-farm employment and building community assets; (ii) encourage development of cooperative and small and medium sized enterprises (SMEs), with access to credit to foster entrepreneurship; and (iii) provision of social services and assistance to landless families that are unable to participate in public works programmes.

- 53. The good governance flagship includes maintenance of peace and security; improved relations with all countries; promotion of national unity and reconciliation; justice, human rights and the rule of law; and decentralization and service delivery. It complements ongoing programs aimed at creating well-defined property rights, business friendly regulations, efficient public administration, and the elimination of corruption.
- 54. There are several sector wide plans in place or being finalized to support the implementation of Vision 2020, the MDGs and EDPRS. All plans reviewed promise to mobilize and work with the private sectors and NGOs. They give effect to the implementation of several policies and laws already shown in Table 5.
- 55. In its 2007 MDG Report, the GoR identifies the key challenges under Goal 7 for environmental sustainability as being: (i) rapidly growing population density, (ii) land degradation which adversely affects agricultural productivity, (iii) deforestation, (iv) rural-urban migration putting stress on social and physical infrastructure, (v) lack of environmental related data and (vi) weakness in implementing the environmental strategy due to inadequate resources. To note, failure to deliver on MDG 7 could also have negative repercussion for delivering on others e.g. MDG 1: eradicate extreme poverty and hunger. These challenges compel the government to address them in a pragmatic and practical way, including making cost-effective use of public expenditure.
- 56. To sum up, sectors are all challenged to ensure that their capacities to 'supply" all goods and services including those from the environment should meet the "demand" of a growing population.
- 57. With respect to financing, each budget agency makes annual work plan and budget. When these are submitted to MINECOFIN, the budgets are summarized and consolidated in the Medium Term Expenditure Framework. Other annual work plans are made and sent to the Prime Minister's Office to serve as a basis for the annual assessment. Because of similarity, it would save cost and time to harmonise the two action plans into one¹¹.
- 58. Only two sectors have developed fully costed sector strategies, which are used as the basis for the preparation of their budget request: health and education. In the case of the education sector, it is the Long Term Strategy and Financing Framework (LTSFFF) which provides a financial framework for the education sector (recurrent and development) covering 2006-2015. ENR sector made a costing of its plan but was restrained to stick within MTEF ceilings.
- 59. As mentioned earlier, the government is involved in several reforms, including those of planning and budgeting. MTEF serves as a basis for linking broad national and sector objectives in the national budget allocations and assessing trends over a multi-year period¹². The National Planning and Budgeting Guidelines 2008 give illustrations on how to sharpen the linking of sector priorities to budgets. Examples include: (i) linking budget programmes to sector targets over a 5-year period, (ii) linking budget programmes to sector activities, (iii) linking sector programmes to EDPRS flagship programmes.

 $^{^{11}}$ It is also gratifying to mention that government has already realized this problem and is starting to address it.

¹² MINECOFIN [2008]: National Planning and Budgeting; MTEF Guidelines

- 60. According to the same guidelines, 'the national priorities are determined and updated annually by the GoR through the Cabinet. They are based on national strategies such as EDPRS as well as on current government priorities.
- 61. The process of updating priorities at national and sector levels is informed by the assessment of performance over the previous year that take place in sectors and districts during joint sector reviews with Rwanda's external financing partners. According to the Director General, Budgeting MINECOFIN, October is the period when such reviews and assessments should be commencing. His view is that the beginning for improving the linkage of budgeting to sector plans and EDPRS has been launched, but a lot of improvement needs to be made over time by all sectors. It is recognized as one of the serious gaps in budgeting. The coincidence of carrying out this PER in October gave the team opportunity to participate in the joint sector review for ENR, and to pick lessons from other reviews, particularly those for agriculture and private sector.
- 62. A critical review of the guidelines referred to above show that the MTEF structure can be well superimposed on the planning structure. Both structures are also well aligned to the vertical logic of indicators: inputs, output, outcomes and impacts (See Figure 2). Many institutions are yet to fully internalize and use these guidelines for uniformity and consistency of reporting. It is here that MINECOFIN should take a lead in training them on how to use them. It was found that sectors are now using them to be seen to follow the procedure. They need to appreciate their usefulness in linking public expenditure to policy objectives and EDPRS targets.
- 63. However, for the purposes of tracking public expenditure, it was found that Smartgov¹³ at MINECOFIN summarises data by sub-programme, at best. It is not used to capture public expenditure relating to outputs, activities or inputs. These can only be obtained at source, that is, budget agencies. For this reason, the team drew practices and lessons of budgeting for mainstreamed activities from the 2008 action plans of all sectors. They are reported in Chapter 4.
- 64. Practically, the annual work plans by budget agencies will remain the most detailed source of evidence on whether budget agencies mainstream environmental issues and whether they put them on budget. The annual evaluation of performance of institutions called *Imihigo* is founded on annual action plans
- 65. Another important detail in the National Planning, Budgeting and MTEF Guidelines, 2008, is that MINECOFIN has provided **criteria on the prioritization of public expenditure**. The PEER team used the same criteria among others in the public expenditure analysis for environment. The criteria are given in Box 5 and the analysis based on the criteria forms part of chapter 4, 5and 6.

¹³ Smartgov is a computerized expenditure commitment and payment recording system. All ministries and most provinces are now part of the Smartgov network. Districts are in the process of being connected.

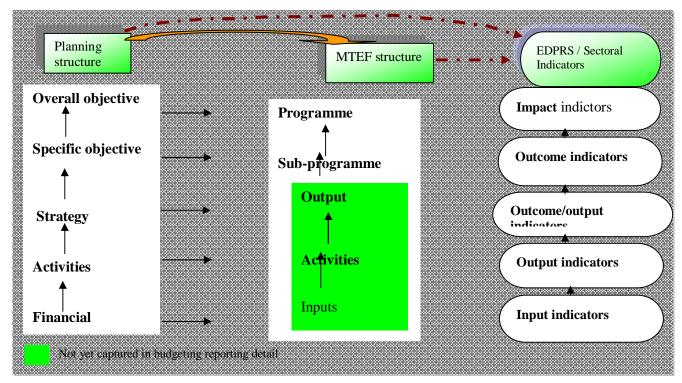


Figure 2: Hierarchy of planning and relationship to MTEF structure and indicators

Based on National Planning, Budgeting and MTEF Guidelines, 2008

Box: 5 Criteria for prioritizing public expenditure in Rwanda

- (i) Expenditures must contribute, whether directly or indirectly, to the reduction of poverty.
- (ii) Expenditures will be targeted at those activities which the private sector cannot realistically be expected to undertake.
- (iii) Expenditures will target those activities which can be shown to have high socio-economic impact, as measured by rates of return or other quantitative criteria.
- (iv) Expenditures will target the activities that communities have identified as important to them.
- (v) Expenditures will be directed to well planned activities for which realistic and modest unit costs have been identified and where there is a well-developed expenditure proposal.
- (vi) In cases where the previous two criteria are not met but the activity meets the other criteria, priority will be given to supporting policy development and planning in the sector.
- (vii) Expenditures that reduce future recurrent costs will be prioritised, for instance bed-nets, non-wage funds (books, materials and teacher training) to schools, road maintenance, and water supply.
- (viii) Expenditures will be targeted at those activities which can affordably be extended to the whole relevant target population, rather than those which could only be delivered to a few.
- (ix) Activities that are labour intensive and create necessary infrastructure for development will be prioritised.
- (x) Activities that favour disadvantaged groups, including activities which address gender or age-based inequities and protect the rights of children, and activities that reduce economic inequality will be prioritised.

Based on National Planning, Budgeting and MTEF Guidelines, 2008

3.5 Public financial management, 2008-2012

66. The GoR formulated a Public Financial Management Reform Strategy 2008-2012, together with an Action Plan 2009-12 which were approved in December 2008 by Cabinet. This study has accordingly been contextualized in the above reform strategy which is continually being used for public expenditure. The First Budget Call Circular for the FY 2010/11 conveys this context, and equally emphasizes the three levels of Public Expenditure Management.

"The Government of Rwanda has an ambitious plan to accelerate public financial management reforms in order to have in place an enhanced public financial management system by 2012. Budgeting is a key reform component aimed at achieving economic growth and poverty reduction through policy based budget in order to realize all the three key strategic budgetary outcomes of aggregate fiscal discipline and sustainable budget balance; strategic allocation of resources; and efficient use of the resources in service delivery."

67. In 2006, the government enacted a law on State Finance and Property. It provides the legal framework for the preparation, adoption, execution and monitoring of the national budget. The provision that informed this PER are given in Box 6 below.

Box 6: Key articles of the Law on State Finance and Property regarding aid management

Article 6: "All revenues, including debts and loans and all expenditures of the State shall be included in the central Government and the local administrative entities budgets. The budget shall be presented in a single document by integrating the recurrent and the development budgets into one. The budget should cover all state revenue in one unique document."

Article 7: "For effective management of the Budget in the central Government, a consolidated fund shall be established, which constitutes all revenues and other public monies, including earmarked revenues of extra budgetary funds and external loans and grants received in general."

<u>Article 35:</u> "Capital expenditure shall be provided for in the general State Budget in the form of multi year programmes and implemented through annual payments via allocated credits."

<u>Article 63</u>: "All raised or received central Government money shall be credited into a single Treasury account in the National Bank of Rwanda."

Source: Law on State Finance and Property 2006

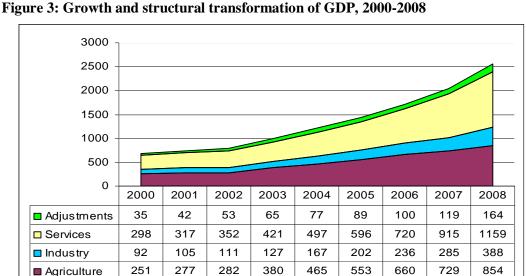
- 68. In 2009, the GoR also formulated a National Public Investment Policy which is to guide sectors in ensuring;
 - (i). alignment of public and private investment to Rwanda's medium and long term development goals,
 - (ii). the quality, in terms of efficiency and efficacy, of the investment portfolio and increased level of project execution rates,
 - (iii). increased coordination between public and private investment, including the Public Private Partnerships, and
 - (iv). that public resources are optimally leveraged to attract private investment.

69. According to the Budget Call Circular, all investment projects to be financed have to satisfy the 'National Public Investment Policy, 2009.

3.6 Growth and structural shifts of Gross Domestic Product

As Rwanda's GDP continues to grow, it is depicting intra and inter-sectoral shifts. The natural resource based GDP estimated at 35% is still the highest. Rwanda has stretched its capacity to generate revenue from new sources, and hopes to do so from the real GDP growth that will increase disposable income.

- 70. Between 2001 and 2005, the GoR implemented its first EDPRS. It is now implementing the second one, 2008-2012. The focus of the priority EDPRS programmes is to promote higher economic growth in the medium to long term without falling into an unsustainable debt. Equally, it seeks to reduce the proportion of the population under the poverty line from 56.9% to 46% in 2012. Importantly, there is a focus on the reduction of those under extreme poverty from 36.9% to 24.0% in 2012.
- 71. The Gross Domestic Product (GDP) at current prices has grown by 279 % since 2000. Agriculture's proportionality continues to dominate (at 33% in 2008) although that contribution has fallen from a mark of 39% in 2004. This is mainly on account of the decline in contribution of food crops to GDP from 33% in 2004 to 28% in 2008.
- 72. The growth in industry has been 270% since 2000. In structural changes, it is mainly mining and construction that account for the industry's marginal proportional increase from 14% in 2005 to 15% in 2008.
- 73. The services sector has grown by 289% since 2000. Wholesale and retail trade, transport and real estate explain the proportionate increase from 41% in 2004 to 45% in 2008 (Figure 3).
- 74. For purposes of future PEERs, it should be kept in mind that in October 2009, the NIS revised the GDP numbers based on the 2006 benchmark, and on basis of the 2005 EICV. By this approach, the GDP figures have been adopted to be comparable to those of IMF and World Bank. It is the same figures the PEER team used in the above analysis.



Source: National Institute of Statistics of Rwanda, 13th October, 2009

75. Over the next 3 years, real GDP growth rate is projected at 7.3% per annum and 13.9% in nominal terms. The primary sector is projected to grow from a rate of 3.4% in 2008 to 5.9% in 2010 in real terms, (averaging 5.0%). This period coincides with the multitude of agricultural policies culminating to increasing input use and productivity, (such as the GoR fertilizer policy, water harvesting, and terracing and extension services). There are however indications that as a result of adverse weather conditions (climate change), food production may be lower than estimated. The likelihood that climate change impacts may affect other sectors cannot be ruled out.

3.7 Sources of funding: internally generated revenue and development assistance

- 76. In managing its finances, the government produces and is guided by four fiscal results: total revenue, total spending, the deficit (or borrowing requirement), and the public debt. Accordingly, the government annually releases the projected revenue by internal and external sources in laws determining state finances. Table 7 is made on the basis of these laws¹⁴.
- 77. It has to be noted that the Republic of Rwanda acceded to the East African Community (EAC) Treaty on June 18, 2007 and became Member of the Community with effect from 1st July 2007. The entry of Rwanda into the EAC means harmonizing of its policies and processes with those of the EAC in various areas of cooperation including the alignment of its budget calendar. Rwanda had committed to fully align with the EAC by July 2009. Consequently, the current budget calendar changed with effect from 1st July 2009. The 2009 mini budget for 1st January 2009 to 30th June 2009 was intended to bridge the transition from the previous budget calendar to the EAC calendar.

¹⁴ Refer to 3.3.1 of the ToR

Table 7: Rwanda State Revenues, 2005-2011/2012 (Billion Rwf)

Item/Year	2005	2006	2007	2008	Mini	2009/10	2010/11	2011/12
					budget 2009			
Tax revenue	162.5	167.5			176.0	368.0	417.7	478.7
			214.6	275.3				
Non-tax revenue	17.8	12.8			17.0	33.5	37.6	42.2
			12.1	22.5				
Other domestic resources	-	15.9			6.3	25.7	9.9	10.9
			16.0	27.0				
Grants from overseas	164.4	208.6			120.2	215.8	256.2	277.9
			285.3	199.5				
Capital revenue	-	_	-		72.6	195.0	182.0	181.5
				149.7				
Total	344.7	404.7			392.1	838.0	903.4	991.2
			528.0	674.0				

Source: MINECOFIN BUDGETS and NISR [2005]

- 78. Cross-verification from RRA, DAD, and budget execution reports has revealed that, overall, and systematically, RRA has exceeded the targets that are put in Table 7 above by a range of 5% to 25% since 2000. This can be seen for example in Table 8 below. Even when the growth rate is adjusted for inflation, there remains a positive contribution to the economy. The government is targeting to keep the inflation to one figure. At the end of 2007, it stood at 8.4% compared to 9.2% in 2006. Inflation, unless controlled affects the general price levels and could reduce the real value available for public expenditure. Controlling it is one of the primary measures for fiscal discipline.
- 79. From a comparative perspective, Rwanda's tax revenue as a percentage of GDP of 14.1% shown in Table 8 is rivaled by that of Kenya (18.4%), and Burundi (17.4%). It is higher than that of Tanzania (12%) and Uganda (12.6%).

Table 8: Nominal GDP and revenue growth (Rwf Bn)

Period	2003	2004	2005	2006	2007	2008
Nominal GDP	955.2	1137.9	1327.1	1583.0	1866.1	2437.2
Total tax revenue	119.1	136.2	173.5	198.2	246.9	344.2
Tax revenue/GDP ratio	12.5%	11.97%	13.1%	12.5%	13.2%	14.1%
Nominal GDP growth	22.2%	19.1%	16.6%	19.3%	15.4%	30.6%
Tax revenue growth	24.5%	14.4%	27.4%	14.2%	24.6%	39.4%
Annual inflation rate	11.7%	11.9%	9.1%	8.9%	9.1%	15.4%
Disparity between tax revenue	12.8%	2.5%	18.3%	5.3%	15.5%	24%
growth and inflation						

Source: MINECOFIN & RRA

80. In its Budget Framework Paper, 2008-2009, the government has stated that domestic revenues are forecast to stabilize as share of GDP of about 12.8 percent of GDP in the medium term. This is due to the fact that it has exhausted all its gains from improved administrative capacity in the Rwanda Revenue Authority. In addition, taxes on international trade are expected to stagnate due to a number of factors.

- 81. The most important ones are: a shift in the composition of imports with an increasing share of capital goods that does not attract duties; a shift in the origin of import with a larger share coming from COMESA and EAC countries that pay no or low duties; and finally expected minor appreciation of the franc against the US dollar.
- 82. These factors are expected to impact negatively on revenue projections in the medium term. Any additional increases in revenue collection in the medium term will therefore be expected to come from the real GDP growth that will increase disposable incomes. That should influence government on the way it prioritizes its public expenditure. In meantime, the Government has commissioned a study to enlarge the tax base. A report of the study is expected in a month's time. Subsequent to the study outcome, Cabinet will take a decision. Likewise, MINELOC is soon commissioning fiscal census among districts as basis of guiding them in resource mobilization.
- 83. Suffice it to mention however, that raising the incomes of the majority poor still dependent on natural resources is the way to go.

• Extra-budgetary funds

- 84. There has been a number of extra-budgetary funds collected and utilized at source by institutions collecting them. Their levels are not fully known. The government is establishing the position. In meantime, it is improving the fiscal discipline by providing that all raised or received central government money shall be credited to a single Treasury account in the National Bank of Rwanda.
- 85. To note is that the Organic Law N° 4/2005 had provided for the establishment of the National Fund for Environment, abbreviated as FONERWA in French. A separate study has been made on this subject supported by PEI. The study urges government to consider FONERWA or amend the law to allow some of the revenue to be collected but which was tied to FONERWA's establishment (e.g. EIA fees). The on-going debate on climate change and related funding makes FONERWA a good candidate for management of such funds. As of now, Rwanda does not have substantial earmarked funds to talk of to finance environmental expenditure.

3.8 Environmental Fiscal Reforms

86. Environmental Fiscal Reforms (EFR) can also be a powerful instrument for environmental financing. They encompass full cost pricing of natural resources, taxation, charges, tax rebates and exemptions, smart subsidies and other forms of incentives. Rwanda has been providing them through the Investment Code and other laws for customs, VAT, income and consumption. They offer multiple benefits including: (i) addressing environmental issues, (ii) reducing poverty and, (iii) raising revenue. Presently, there is no central and coordinated approach to fully measuring their magnitude and impacts. The government is in the process of studying them further with a view of harmonizing them. It is equally in the process of operationalising the National Fund for Environment, in French abbreviated as FONERWA. Once formed, FONERWA is supposed to give support in form of incentives for sustainable environmental management¹⁵.

¹⁵ Separate studies have been conducted by REMA for EFR and FONERWA under PEI

3. 9 Development assistance in Rwanda

Rwanda's dependence on aid is high with 49% of the total budget in 2009 expected to be financed by aid. The per capita ODA of US\$ 64 and ODA as a percentage of GDP of 25.6% are the highest among the East African member states. The government's preference is for grants over debts. It would be strategic for Rwanda to put environment on budget when it is still attracting a lot of ODA.

- 87. It should be observed right from the onset that the GoR is improving systems to fully capture and put aid on budget. It is not yet there. Because of this, the totality of external funding cannot be obtained from a single source. This too has affected the rigour for PEER analysis.
- 88. Through the Donor Performance Assessment Framework (DPAF), the donors have committed themselves to improving reporting on their commitments, alignment and harmonization (Table 9). It will be their progress in this regard that will fully inform PEERs and related analysis in future. Until that is achieved, some of the analysis and inter-country comparison will be cautiously done.

Table 9: Some key indicators relevant for PEER under DPAF¹⁶

Ind	licator	Baseline 2007	Actual 2008	Notes
1.	% ODA recorded in the National	51%	67%	100% expected to be
	budget			achieved in 2010
2.	% ODA captured in sector strategic	N/A	N/A	100% by 2010
	plans			
3.	% ODA disbursed using GoR budget	38%	45%	To be improved
	execution procedure			
4.	% ODA disbursed using GoR financial	46%	50%	To be improved
	reporting systems			
5.	DAD data quality index	=	0.70	1.00 to be attained in
				2010

Source: Rwanda Donor Performance Assessment Framework Preliminary results, 2009.

- 89. When a study was made in 2008 on aid, it was found that OECD database had a figure of US\$ 628.24 million against US\$ 497.7 million reported by the Development Assistance Database (DAD) Rwanda. The main reason for the discrepancy is that OECD captures expenditures which DAD does not capture.
- 90. They are; aid in-kind, aid to NGOs and aid where expenditure is undertaken directly by the donor [Mailan Chiché, 2008]. Given that NGOs have no central coordination centre where they report their funding, one cannot form a true picture of their funding capacity, let alone for environment.
- 91. With the above situation, one cannot tell how differently sectors, including those for environment are proportionately benefiting from the uncaptured aid. In view of the intention and desire of the GoR to take ownership and control over resources so as to guide fiscal discipline, the PEER team chose to analyze the data under government's control. The second motivation is that after all, DAD quality index of 0.70 is not bad. Thirdly, it is this database government is improving to guide its resource allocation in future. It is likely, it will be the same source that will serve further PEERs.

¹⁶ Based on 12 donors reporting in April, 2009.

92. There are a few findings from DAD which need mention. First, the gap between donor commitments and actual disbursements have systematically narrowed down over time (Figure 4). The advantage is that it gives the GoR **predictability** in planning public expenditure.

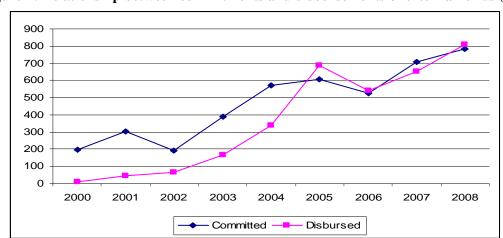


Figure 4: Relationship between commitments and disbursements of external funds (US \$ M)

Source: DAD: Accessed on 24/10/2009 by the authors.

93. Secondly, in comparison with EAC member states, Rwanda tops the list on the basis of per capita (US\$) ODA (Table 10). Further, ODA constitutes 25.6% of GDP, and 121.9% of gross capital formation. Rwanda prefers grants to loans. The latter can only be accepted if they are highly concessional 17. As long as Rwanda is still a favourable recipient of aid in grants, it should use it to its advantage to also invest in environment. This is particularly because it is not under pressure to repay. This augers well for investments in the environment which take long to show impacts.

Table 10: ODA among EAC member states, 2005

Country	Per capita (US\$)	ODA as a % of GDP	ODA as a % of gross capital formation		
Burundi	48	48	400		
Kenya	22	3.8	22.3		
Rwanda	64	25.6	121.9		
Tanzania	39	11.1	58.6		
Uganda	42	14	56		

Source: World Bank [2007]

94. MINECOFIN has been mandated to be the lead institution in coordinating external assistance and ensuring its efficient allocation to activities in line with the national planning process. To that end, it is improving Development Assistance Database (DAD) which will act as an interface between donors, NGOs, and government for the collection, verification and basic analysis of data pertaining to all external finances in Rwanda. The system is to be integrated with the GoR's SmartGov system. The implication is that future PER for environment must consider DAD as the repository for external aid.

¹⁷ MINECOFIN [2006]: Rwanda Aid Policy

- 95. In 2006, the cabinet endorsed the Aid Policy to improve harmonisation, alignment and effectiveness of aid. The policy aims at ensuring predictability, reduction of transaction costs of receiving aid and utilizing its limited human capacity to manage and coordinate aid. While the policy shows that the government would be flexible in maintaining 'mixed' portfolio of modalities, it ranks them in the order of unearmarked budget support, sector-budget and stand alone projects which must be on-budget and on plan¹⁸. A drop in the proportionality of general budget support is noticed in 2006 (Figure 5). Even in 2007 and 2008, it was lower than some modalities. The sector basket funding was leading in 2008. It can therefore be argued that there is no predictable pattern yet among the funding modalities
- 96. The government seeks to ensure that all external assistance is aligned with priorities identified in the EDPRS and Sector Strategic Plan. The implication therefore is that the ENR sector institutions must be seen to comply with the above to compete for resources.

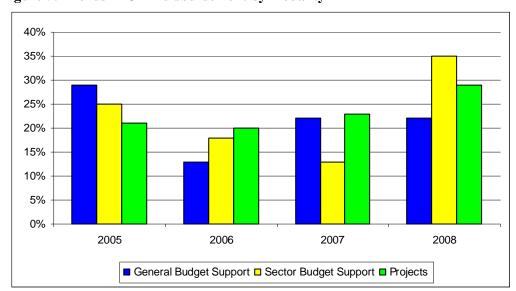


Figure 5: Trends in ODA disbursement by modality

Source: DAD: Accessed on 24/10/2009

- 97. It is observed in Figure 6 that Rwanda's funding mechanisms create a complex web. The sources of funding are channeled through multiple modalities to a wide range of recipients. This raises a lot of implications. First, it complicates data gathering for a PEER. Secondly, it increases the transaction costs of managing expenditure across many modalities. Thirdly, it delays perfection of systems for putting and monitoring aid on budget. It thus explains why the government prefers general budget support as its funding modality so as to reduce the above problems.
- 98. There are key issues to summarise with regard to reporting on environmental financing. They are:
 - (i) there is no single source for environmental financing
 - (ii) beyond the flows of funds into the country by funding modality, one is challenges to identify and delineate environmental activities and their related budgets.

¹⁸ In the context of Rwanda's Aid Policy, resources are deemed to be **on-budget** when they are reflected in the government's budget. On the other hand, resources are **on-plan** when clear alignment with a strategic plan is demonstrated.

- (iii) there was no centralized system on reporting on the use of extra-budgetary funds at the time of the review. It was understood subsequently that CEPEX has stated to make a list of projects using such funds. Future PEERs should thus take these into account.
- (iv) there is no centralized system for reporting and accounting for earmarked funds (e.g National Forestry Fund)

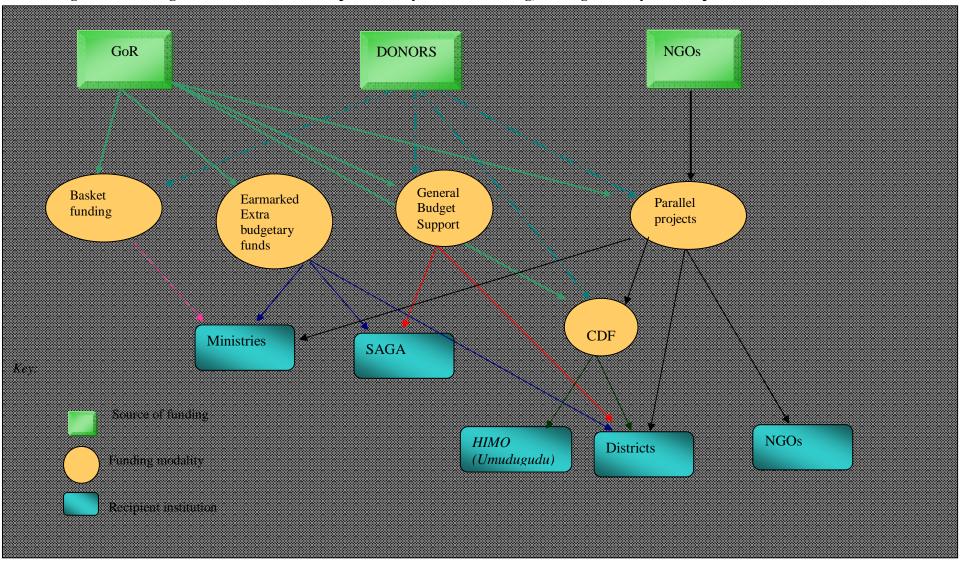


Figure 6: Tracking Public Environmental Expenditure by source of funding, funding modality and recipient institutions in Rwanda

99. At the 6th Annual Meeting between the GoR and its Development Partners, the concept of Division of Labour (DoL) was discussed. The concept promotes donors' prioritisation of their aid in a few sectors to avoid high transaction costs and to ensure equitable allocation of resources across EDPRS sectors. Table 11 is made based on this concept, and is highlighting where the donors are currently intervening and where they propose to intervene. Although this concept is young, it nonetheless sends out a message to the sectoral agencies to realise the changing aid architectural landscape. The table allows sectoral institutions to identify sources of funding and which they need to engage regularly

Table 11: Division of labour by current and proposed interventions

	Education	Health and population	Social protection	Employment and capacity building	Youth, sports and culture	Transport and ICT	Energy	Water and sanitation	Agriculture	Forestry, land and environment	Manufacturing, services and off- farm industry	- 43	Justice reconciliation and law and	Public administration	Decentralisation
BE	00	00					00	0	0	0			0		0
Canada	0			0					00		0	00			
Germany	00	0		00								00	0		00
Japan	00					0		0	00						
NL	0			0			00			0		00	00		
Sweden	00		00							00			0	0	0
DFID	00	00	00	0					0	0					0
US	0	00	0	00					00	0			0		0
ADB	0					00	0	00	00	0					
EC						00	0	0	00				00		
WB	0	0	0			00	00	0	00		0	0			0

Key: ● Current intervention ○ Proposed Intervention

100. The development partners have several fora at which they make their contributions to environmental management. Some are formal, some are informal. For example, development partners share and transfer information among themselves regularly. In that way, they are able to identify common interests and complementary activities. This approach is further reinforced with formal approaches like Joint Sector Reviews and Annual Leadership meeting. Thus, the development partners can contribute by providing information, financial resources, mobilizing technical assistance and transferring lessons from other similar countries where they have presence. The GoR must demonstrate it needs these. The top ten donors are given in Table 12. On the other hand, Figure 4 shows the relationship between the pledges (commitments and actual disbursements).

Table 12: Top ten donors to Rwanda

Top ten donors	Average US \$ 2000-2008
1. European Union	150,560,612
2. IDA	142,083,551
3. DFID	103,609,588
4. USAID	102,660,316
5. Global Fund	57,403,209
6. ADF	44,773,768
7. Netherlands government	41,694,981
8. Belgian government	31,582,831
9. WFP	29,323,945
10. CDC	28,949,281

DAD accessed 30th October, 2009

- 101. The GoR has expressed its approach to using debt to fund public expenditure in the Debt Policy, 2008. It considers debt as a potential financing option to meet the financial requirements of its national development plans. The Legal basis for Debt management is the Constitution of the Republic of Rwanda as the supreme law enacted by Parliament. The Organic Budget Law of State Finances and Property (OBL) No. 37 of 2006, the Statute of the National Bank of Rwanda 1997 as well as the Local Government Finances Law also provide secondary laws for debt management. The "Financial Regulations" of 2007 guide the implementation of the provisions of the OBL. The above mentioned law also authorize the GoR to borrow both domestically and/ or externally.
- 102. More specifically, the GoR shall prioritize debt to finance projects that will contribute directly to (i) GDP growth, (ii) capital formulation, (iii) job creation and/or (iv) export revenues. The GoR has stated it shall refrain from borrowing for recurrent expenditures. As Rwanda has benefited from the MDRI debt relief, the country is no longer eligible for budget support loans. In order to keep the debt situation sustainable, the GoR says it will favour grants as a form of financing and maintain a prudent borrowing levels at a minimum, averaging 22.6 billion Rwf per year. This will be at a highly concessional rate.

3.10 Flows from the Private sector

In addition to using the funding from its own sources and donors, Rwanda's dependence on private funding is growing. Government should re-orient it so that it too, can benefit environment. One of the methods government is using are investment incentives and environmental fiscal reform.

103. Foreign Direct Investment (FDI) flows into Rwanda have steadily grown to even surpass that of giant Kenya for the first time in 2009 [UNCTAD, 2009] (See Figure 7). Much of that has gone into telecommunication (23%) and energy (22%), and the rest into other sectors [RIEPA, 2008]¹⁹. In other African countries, much of the FDI is reported to have gone into petroleum and mining.

¹⁹ See 3.3.2 of the ToR

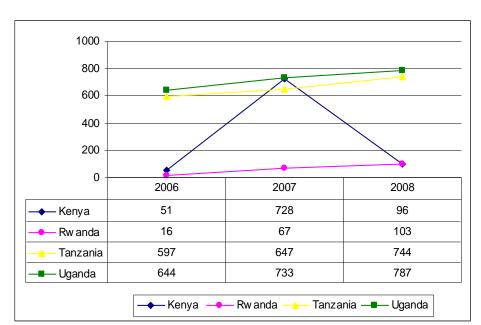


Figure 7: Trends of FDI flow to EAC member states, 2006-2008

Source: UNCTAD [2009]: World Investment Report

- 104. The potential for FDI to increase even further has been improved by Rwanda's topping the global list of business regulation reformers [WB, IFC, 2009]²⁰. The main implications from the above are that the GoR stands to make savings of its public expenditure by adopting multiple strategies, including (i) public-private partnerships and (ii) creating enabling policy environment so that the private sector takes a lead in investment. The several EFR incentives under the Investment Code, the Customs Law, the VAT law, etc should augment the investment climate.
- 105. However, the government should not overshadow itself with inflows at the expense of ensuring compliance to national environmental laws, standards and regulations. As a matter of fact, the growth of FDI in Rwanda should signal to it, the need to build the capacities of some institutions (e.g REMA, RBS, RDB) to monitor, guide, and regulate those investments. Mining in Rwanda for example, has been with low environmental compliance [SOE 2009].
- 106. Another feature worth noting is that even though FDI has grown, the domestic investment has recovered after a big decline in 2005 (Figure 8). Generally, the economies in the region seem to have been more resilient to recession shocks than episodes of failed governance. Thus, this underscores Rwanda prioritization of good governance under its EDPRS.

-

²⁰ Doing Business, 2010.

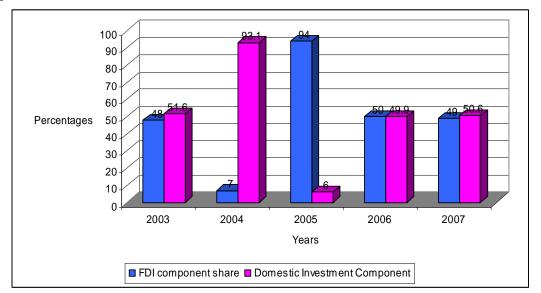


Figure 8: Trends in balance between FDI and domestic investment

107. In a study to examine the effect of FDI on economic growth in 47 African countries, it was found that a 1% rise in the ratio of FDI to GDP leads to a rise in the growth of GDP by 0.71%. [Sharma, Basu, Abekah and Joe, 2008]. The key finding is that FDI has a positive effect on the growth of GDP in Africa, and Rwanda would benefit by maintaining a stable economy to attract more FDI. It is likely that Kenya's FDI flows were marred by post-election violence.

3.11 Government current and projected structure of expenditure and its analysis

- 108. On the expenditure side, the Government remains strongly committed to implement expenditure policies that will remove the obstacles to stronger growth and poverty reduction in line with the strategies of the EDPRS. The budget for 2008, the first year of the EDPRS, includes substantial increases in resources for infrastructure (energy, roads and water), agriculture and social protection including health and education. Taken together overall expenditure is programmed to average about 25.4 percent of GDP during the medium term.
- 109. In line with the EDPRS costing and requirements, total expenditure has been projected to rise gradually from Rwf 607.5 billion in 2008 to Rwf 708.2 billion by 2010. This equatesh to an average annual increase of around 10 percent. The recurrent portion is programmed to rise from Rwf 365.3 billion in 2008 to Rwf 417.2 billion by 2010.
- 110. Capital expenditure which has been estimated at Rwf 227 billion in 2008 is projected to reach Rwf 276.8 billion in 2010. This reflects the policy to raise the share of capital expenditure gradually from around 7 percent of GDP in recent years to about 10 percent of GDP in the medium term.
- 111. Transfers and subsidies are forecast to increase from Rwf 129.8 billion in 2008 to Rwf 162.9 billion in 2010. These increases are driven mainly by the ongoing decentralization policy to increase the earmarked transfers to districts (capitation grants, funds for mutuelle in the health sector and running costs of districts), the provision of adequate funds for social protection, the provisions of funds for the new agencies to be created (Transport agency, Water Agency, Forestry Agency, Mining Agency etc) among others.

- 112. The financing laid out in the Government's medium term plans are currently consistent with targets to improve debt sustainability. They restrain budgetary loan financing whilst relying more on the 'scaling up' of grant finance. Commitments from 2008 to 2010 show a financing gap of Rwf 140.6 billion. Government will continue dialogue with its development partners with a view to fill this gap in order to allow the planned expenditures that are consistent with the EDPRS to be implemented.
- 113. Table 13 presents the trends in total public expenditure for the period 2005 to 2008. The classification leading in absorbing expenditure are transfers and subsidies 25%, goods and services 22%, wages and salaries 20%, and capital expenditure 18%. Further, expenditure as percentage of GDP has averaged 17.75% but has increased slowly over the years. According to Allen Schick 1999, public expending grows as a percentage of GDP as the economy develops. This is the pattern in Rwanda now. However, it is lower than the average of 26% that S. Devarajan et al, reported for all developing countries as far back as 1992²¹.
- 114. The Budget execution reports which were provided by MINECOFIN provide data by budget agency and economic classification. It was the wish of the PEER team to begin with analysis by functional classification given in Annex 4. The available summary accessed was for the proposed budget allocations 2008. It was given in Annex 5. The functional area of environmental expenditure whose limitations were described at length in chapter 2 commands only 1.2% of that budget allocation. A point was also emphasised that it would be grossly misleading to go by functional classification to capture environmental expenditure.
 - Rwanda's variance between budgets and actual expenditure
- 115. A few analyses covering the entire public expenditure were made prior to narrowing down to the analysis of public expenditure for ENR sector under MINIRENA. It is observable from Figure 9 that the government has tried to narrow the variance between the original budget and actual expenditure over time. The reporting of internally funded development expenditure commenced in 2006, hence the reason for starting with this year. The variance was however, much higher for development expenditure in 2006 and 2007 than it was for recurrent. The narrowing of the gap is mainly explained by MINECOFIN's guidance that sectors should not budget for more than 10% of the previous budget²². It also shows alignment of budgets to potential revenue capacity.

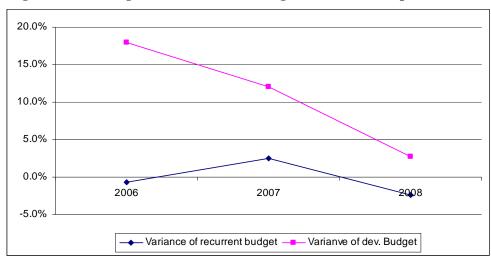
 $^{^{21}}$ S. Devarajan et al [1996]: Journal of Monetary Economics 37 (1996) 313-344 22 Refer to 3.3.5 of the ToR.

Table 13: National public expenditure by economic classification, 2005-2008

		2005	2006	2007	2008	Total	2005	2006	2007	2008	Average
1.	Wages & salaries	51.2	62.2	73.4	84.2	270.9	21%	22%	19%	17%	20%
2.	Goods & services	64.5	71.6	77.5	81.0	294.5	27%	25%	20%	17%	22%
3.	Transfers & subsidies	53.5	72.6	103.8	130.4	360.3	22%	25%	27%	27%	25%
4.	Exceptional expenditure	35.4	33.5	46.9	10.3	126.1	15%	12%	12%	2%	10%
5.	Arrears	8.5				8.5	4%	0%	0%	0%	1%
6.	Debt	28.3	11.8	18.6	60.3	119.0	12%	4%	5%	12%	8%
7.	Capital	0	35	63.7	119.2	217.9	0%	12%	17%	25%	18%
Tot	al expenditure	241.4	286.7	383.9	485.4	1397.4	100%	100%	100%	100%	100%
GD	P(FRw billions)	1,440	1,716	2,049	2,565	7,770					
Tot	tal expenditure as	16.7%	16.7%	18.7%	18.9%						
%(GDP										
	rrent										
	enditures as %	16.7%	14.7%	15.6%	14.3%						
	GDP										
1. 2.	Wages & Salaries	3.5%	3.6%	3.6%	3.2%						
3.	Goods & services	4.5%	4.2%	3.7%	3.2%						
4.	Transfers & subsidies	3.6%	4.2%	5.1%	5.1%						
5.	Exceptional expenditure	2.5%	2.0%	2.3%	0.4%						
6.	Arrears	0.6%	0.00%	0.00%	0.00%						
7.	Debt	2.0%	0.7%	0.9%	2.4%						
Ca	pital	0.0%	2.0%	3.1%	4.6%						
Gr	owth rate of	81%	19%	32%	26%						
pul on	olic expenditure budget										

Source: NISR, MINECOFIN: Budget Execution reports

Figure 9: Percentage variance between budgeted and actual expenditure, 2006-2008



Source: MINECOFIN: Budget Execution Reports

- Relationship between tax revenue and recurrent expenditure
- 116. The tax revenue in Rwanda is not yet covering the recurrent budget, and the mismatch is not narrowing. (Figure 10). This is a big challenge for the government determined to reduce its dependency on external assistance. It also suggests that the government could be vulnerable if donor funding is not forthcoming on schedule and in the right amounts.

450 400 350 300 250 200 150 100 50 0 2004 2005 2006 2007 2008 Tax Revenue Recurrent expenditure

Figure 10: Relationship between tax revenue and recurrent expenditure, 2004-2008

Source: MINECOFIN Budget Execution Reports

- Relationship between recurrent and capital expenditure
- 117. The proportion of development expenditure to total expenditure on budget has risen, from 11% in 2006 to 15% in 2007 and 23% in 2008. ²³
 - Analysis of public expenditure by economic classification
- 118. At macro level, transfers and subsidies have the highest expenditure between 2005 and 2008, at 25%. They are followed by goods and services (22%), wages and salaries (20%), capital development (18%), exceptional expenditure (10%), debt (8%) and finally arrears (1%). (Table 13).
- 119. The **non-wage recurrent** expenditure composed of transfers of wages and salaries for autonomous agencies and goods and services has taken 47% for the period 2005-2008. The transfers, particularly of wages and salaries from 22% in 2005 to 27% explain why the government wage bill is lowering, from 21% in 2005 to 17% in 2008. It would be prudent to maintain that operational efficiency.
- 120. The explanation given for these patterns is that government is under reform to retain lean, efficient ministries with mandates for policy mainly. It was neither possible at this juncture, to get a picture of the likely staff size of civil service nor of the salary differentials between the public and private. The intended gains in operational efficiency from rightsizing the civil service will be achieved when the remaining manpower is well paid and motivated.

-

²³ See 3.3.2 of the ToR.

3.12 Lessons from previous PEERs

- 121. In this section, important lessons from previous PEERs reviewed by the World Bank are given [Auphil Swanson and Leive Lundethors, 2003]. The aim was;
 - (i) to use the lessons to guide the scope and analysis in this report where data permitted, and
 - (ii) to flag out the important aspects that should be integral to the future PEERs in Rwanda.

122. The main lessons are that:

- (i) PEERs are expensive to conduct (on average requiring US\$ 200,000)
- (ii) The objective and scope for PEER should be well defined, and in any case should be based on the most pressing issue in the country
- (iii) Large comprehensive reviews have generated relatively little impact, and consequently there is a trend towards shorter PEER
- (iv) More focus should be paid to institutional issues, such as budget management and incentives, which have an important impact on expenditure outcomes
- (v) Since there is no optimal ratio or norm, international comparisons should be approached very cautiously
- (vi) The problems affecting PEERs, e.g. data, methodology, etc are usually not full described
- (vii) There should always be a clear dissemination strategy
- (viii) More attention should be paid to analyzing rationale for government expenditures (i.e. externalities, public goods, etc)
- (ix) It is important to analyse capital expenditure along with their required recurrent expenditure
- (x) More attention should be paid to expenditure management issues, including budget implementation and the efficiency of expenditure, for example, via expenditure tracking
- (xi) Most PEERs focus on monitoring inputs, but more comparison is needed between inputs and the activity's outputs and outcomes. However, lack of data is usually an obstacle
- (xii) Although the practice of PEER is evolving, the main issues to be addressed in a PEER are:
 - Allocation of expenditures to environmental programmes
 - o Cost of environmental policy priorities and comparison with the spending envelope made available
 - o Identification of low-priority environmental programmes that could be cut to make space for high-priority environmental programmes
 - o Identification of the possible scope of increasing the spending envelope (due to an increase in internally generated resources, but without advocating earmarking)
 - o Identification of possible policy inconsistencies in budget allocation by using international comparisons, analyzing regional (sub-national) allocations, and examining trends over time.

- Management of expenditures in environmental programmes
 - o Rationale for programmes
 - o Integration of capital and recurrent expenditures
 - o Analysis of amount budgeted Vs. amount spent
 - o Analysis of the effectiveness of environmental programmes
 - o Analysis of the efficiency and quality of environmental programmes (e.g. cost-effectiveness)
- Institutional issues (e.g. budget management, incentives)
- Problems encountered (e.g. data quality)
- Strategy for dissemination of findings

4. PUBLIC EXPENDITURE REVIEW FOR ENVIRONMENT

This section analyses the public expenditure for ENR sector and environmental expenditure across other sectors where information and data was available. However, despite the inadequacy of data for certain aspects, the evidence gathered provides clues on where to prioritise environmental mainstreaming, and on where to improve public financial management in general.

4.1 Overall estimate of public environmental expenditure

- 123. From the onset, it was the desire of the PEER team to bring into one excel framework to analyse public environmental expenditure within the sector, and across the sectors. It was much easier to analyse the total expenditure for ENR sector as a whole; it was less easier for environmental expenditure across all sectors. The following were the key challenges to the desired analysis:
 - (i) the SmartGov which captures the details on both budgets and budget execution does not yet report on activities and outputs (see Figure 2). Yet, it is at those levels that one would be able to discern the true environmental expenditure
 - (ii) it is only in 2009/2010 budget that REMA's budget started to be reflected under its own name. Hitherto, it was part of MINIRENA under the title, "Legal, Regulatory and Policy Systems and Institutional Framework for management of Environment and Natural Resources".
 - (iii) although the budget 2009/2010 makes reference to Rwanda Natural Resources Board composed of Forestry Resource Management; Land Planning, Management and Administration and Mining and Geology, such a Board is not yet formed. The budgets for these functional areas are a sub-set of MINIRENA
 - (iv) there are several programme areas under districts that could benefit environment. They have been given in Annex 9. However, they started to be reflected in MTEF only in 2008, and even then, the environmental expenditure associated with all of them cannot be discerned.
 - (v) when further effort was made to discern such activities and outputs in Annual Action Plans of Budget Agencies, it was found that often those agencies give **block** budgets, encompassing several activities including those for environment. For example, a block budget for road construction between two towns also including the costs of environmental impact assessment. In the Action Plan for MININFRA, 2008, there was one such block figure of Rwf 54,587,000,000 for the Isaka-Kigali Railway link. Under it, there were specific activities but whose budgets were not shown e.g feasibility and detailed engineering study. It was gathered that environmental issues are studied as part of feasibility studies, and it is on their basis that the designs are made.

- (vi) there were several levels of making action plans-some to MINECOFIN and others to PRIMATURE. Details of reporting on activities and related budgets slightly differed²⁴.
- (vii) prior to 2006, budget execution reporting was not providing the break-down between recurrent and development expenditure.
- (viii) the budget execution reports do not include expenditure using extra-budgetary funds and earmarked funds. The government is still working to bring these on budget²⁵.
- (ix) there is no central system for reporting the use of earmarked funds across all institutions e.g National Forestry Fund.
- (x) Rwanda is still undergoing institutional reforms which in turn create shifts of budgets and budget codes e.g transfer of Water and Sanitation from MINIRENA to MININFRA.
- 124. Under the above circumstances, the PEER team chose to approach the reporting and analysis as follows:
 - (i) to analyse the expenditure up to the level of detail available by either sector or subprogramme or case studies. This will ease follow up in future PEERs and will recognize reforms by sector, sub sector e.t.c
 - (ii) to report the caveats within which the interpretation of findings should be made
 - (iii) to report all on going and planned reforms that should inform PEER teams in future,

4.2 Expenditure Analysis under ENR sector

With guidance on budgeting by MINECOFIN, the variance between budgeted and actual expenditure is narrowing across all sectors. But total tax revenue is not yet covering recurrent expenditure and the gap does not seem to be narrowing. That is leaving the country vulnerable to external support. In 2008, ENR sector commanded only 1% of both recurrent and development expenditure on budget. The implication is that both manpower and activities that could benefit the environment are outside the sector.

- 125. Taking ENR sector under MINIRENA in particular, its uptake of public expenditure is shown below (Table 14). To note is that the 2005 figures had not yet incorporated development expenditure.
- 126. From Table 14, MINIRENA has not yet absorbed any public expenditure level to boast of. Recurrent expenditure is less than 1% of total recurrent expenditure of government. The high development expenditure in 2006 and 2007 is attributed to the water and sanitation, which after 2008 was transferred to MININFRA.

²⁴ It is gratifying to report that the government recognized this problem at the Leadership Retreat in 2010 and resolved to work towards a uniform and harmonized planning framework. This could ease the identification of environmental expenditure and its consistency over time, particularly if budgets are shown for each specific activity and output.

²⁵ In fact, it is in the 2010 first quarter reporting that CEPEX started to reflect the extra-budgetary funds across budget agencies.

127. As seen from Annex 6, the ministries absorbing the highest development expenditure in 2008 were: MININFRA (39%), MINAGRI (16%), MINEDUC (15%), MINISTR (19%), MINALOC (9%), and MINECOFIN (3%). ENR under MINIRENA only absorbed 1%. In sum, the main lesson is that strategies for environmental mainstream should prioritise sectors that absorb the highest expenditure.

Table 14: Proportion of actual expenditure for ENR under MINIRENA, 2005-2008

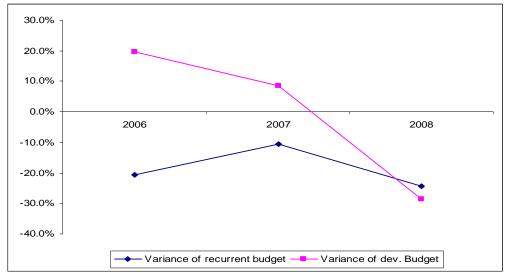
	2005	2006	2007	2008
Total government expenditure	241,382	313,192	419,701	521,135
1. Recurrent	241,382	281,531	356,022	401,922
2. Development	_	34,963	63,679	119,217
MINIRENA's total	2,666	7,478	12,210	4,210
1. Recurrent	2,666	3,280	2,556	2,986
2. Development		4,198	9,654	1,244
MINIRENA's % share	1.1	2.4	2.9	0.8
Recurrent %	1.1	1.2	0.7	0.7
Development %		12.0	15.2	1.0

Source: Budget Execution Reports 2004-2009

- The alignment of the budgets to program areas
- 128. The PEER team found that the codes used for budgeting changed over the years. It will also be imperative to first identify additional changes in future PEERs. The team chose to re-position and align expenditure under programmes and codes that they were identified with. For example, expenditure on coordination and forest policy management monitoring (Code 2204) was used only in 2007. It was placed under Forestry resources (2206) in subsequent years. Likewise, planning, coordination and monitoring of government policy in land (2207) was placed under the programme of Land Management (2201). Two other expenditure items, namely human resource management and support services (2207) and communication and ICT (2209) were placed under Management Support Services programme, [i.e. Parent ministry (2208)]. These codes applied for 2007.
- 129. In 2008, there was a line item called administration and institutional development, with code, 2201. It was placed under the code 2208 for that year. For these reasons, some codes are not shown in Annex 6.
- 130. For 2005 and 2006, the team did not merge the codes under the heading planning, monitoring and evaluation (2204), but preferred to place their budget under the parent Ministry. Those were jointly shared costs. In summary, the expenditure was compared under functional areas rather than institutions, to follow the budgeting and execution formats that were in use. That will improve in future because REMA for example as a budget agency now has its budget separately reflected in the budget law from that of the ministry. Since NAFA is operational, it may command its own code in future. Otherwise, REMA's recurrent budget was only Rwf 350 million in 2006, Rwf 490 million in 2007, and Rwf 565 million in 2008.

- 131. The break-down of budgets for sub-programmes after 2006 were not available. It was their totals that instead were provided. Nonetheless, they do not alter a picture of intra-sectoral or functional allocations within the sector.
- 132. The figures obtained from MINECOFIN for 2006-2008 combined both recurrent and development expenditure on budget, particularly of internally generated funds. It did not show the distribution of that expenditure by functional areas of the ministry. There was assurance that in the near future this will be possible as all the expenditure is put on budget. In fact, the 2009/2010 budget already shows that improvement.
 - Variances between budget and actual expenditure
- 133. The comparison between actual and budgeted expenditure for the ENR sector tells that the variance for recurrent was big in 2006 (-21%) but narrowed a bit in 2007 (-11%). It widened again in 2008 (-24%) (Figure 11).
- 134. The pattern for development expenditure shows that the variance can be too big, that is either getting much more or much less than anticipated. It was +19% in 2006 but had fallen to -29% in 2008. (Figure 11). ²⁶
- 135. An interesting feature is that the pattern of variance between budgeted and actual expenditure for the sector (Figure 11) closely resembles that of government (Figure 9). It cannot however, be ascertained whether the causes at national level may have spilled over to the sector. One would need to make similar analysis for other sectors to reach such a conclusion.

Figure 11: ENR's variances between budgeted and actual expenditure, 2006-2008



Source: MINICOFIN BUDGET Execution reports, 2006-2008

²⁶ That responds to 3.3.5 of the ToR.

- Analysis of ENR sector's expenditure by economic classification
- 136. Table 15 carries the public expenditure analysis by economic functions 2005-2008 for ENR sector under MINIRENA.²⁷ For the four years, 57% of expenditure went to capital development, followed by goods and services (26%), transfers (13%) and wages and salaries took only 5%. It has already been explained that it is the water and sanitation component that accounted for the high development expenditure before it was transferred to MININFRA, in 2008.

Table 15: Analysis of MINIRENA's expenditure by economic classification, 2005-2008

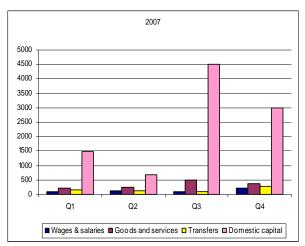
	2005	2006	2007	2008	Total	2005	2006	2007	2008	Average
Wages & salaries	185.9	201.0	565.7	173.5	1126.1	7%	3%	5%	4%	5%
Goods & services	2159.9	2532.9	1360.4	808.2	6861.3	81%	34%	11%	19%	26%
Transfers	320.2	546.3	629.7	2005.1	3501.3	12%	7%	5%	48%	13%
Domestic capital	0.0	4197.9	9654.4	1223.9	15076.1	0%	56%	79%	29%	57%
Total	2666.0	7478.0	12210.1	4210.6	26564.8	100%	100%	100%	100%	100%
Growth rate	224%	180%	39%	-66%						

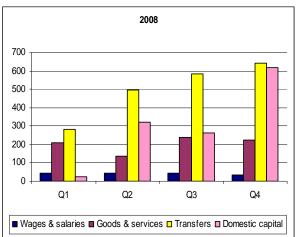
Source: MINECOFIN

- 137. The growth rate in expenditure for the sector was as follows: 224% between 2004 and 2005, 180% between 2005 and 2006, 39% between 2006 and 2007, -66% between 2007 and 2008. They are other noticeable features. Salaries in 2008 dropped from the level of 2007 by 69%. That was because of transfers to SAGAs.
- 138. Government plans to increase salaries and wages from Rwf 83.7 billion in 2008 to Rwf 98 billion in 2009 across all publicly funded agencies and ministries. The move is part of on-going salary reforms and will mainly benefit the newly created institutions, teachers and health workers (Budget Framework Paper, pg 16). The impact this will have on the ratios described above should be traced in the PEER for 2010, and thereafter.
- 139. The absolute amount and proportionality of expenditure on goods and services is generally falling but proportionately to wages and salaries. This is explained by the transfers of these costs to MININFRA following transfer of Water and sanitation.
- 140. There was a rise in capital expenditure between 2006 and 2007. Thereafter, it fell particularly after water and sanitation moved to MININFRA, in 2008. In 2009 and 2008, MINECOFIN started to summarize expenditure by quarter. Analysis of expenditure by economic analysis in 2006 and 2007 by quarter tells that the pattern was **uneven and unpredictable** (Figure 12). For example, both years show that the fourth and last quarter of a financial year generally absorbs more expenditure than say, the first two quarters. It could have had a negative implication for efficiency. It should be observed in future after SAGAs start to report their budget, and when development expenditure is streamlined.

²⁷ See 3.3.6 of the ToR.

Figure 12: Quarterly expenditure of ENR sector MINIRENA by economic classification, 2007 and 2008





Source: MINECOFIN Budget Execution reports 2005-2008

- Analysis of intra-sectoral expenditure
- 141. The above analysis²⁸ was restricted to 2007 and 2008 because it is in these years that the development expenditure was also apportioned to the functional expenditure. (Table 16). Much of that development expenditure was counter-funding to projects run by agencies like REMA. The influence of high expenditure for water and sanitation still features, particularly in 2007. In 2008, it becomes apparent that integrated water resources management is the least funded. The low funding coincides with the growing desire for irrigation. The two do not match unless irrigation is to be predominately funded under donor funded projects.
- 142. Mining and geology also command low proportionality. It was gathered that government considers it as commercial, fit for private sector investment.

Table 16: Intra-sectoral absorption of actual total expenditure, 2007-2008 under MINERENA

	-				
		2007	2008	2007	2008
		Amounts (n	nillions)	Percentage (%)	
1.	Land planning and management	1,026.75	1,052.94	8%	25%
2.	Conservation and protection of the environment	556.25	1,682.42	5%	40%
3.	Forestry resources	412.60	472.78	3%	11%
4.	Water and sanitation	9,171.88	178.97*	75%	4%
5.	Mining and geology	445.41	376.97	4%	9%
6.	Service and management support	597.21	446.53	5%	11%
M	NIRENA	12,210.09	4,210.61	100%	100%

Source: MINECOFIN Budget execution report, 2004-2009

_

^{*}In 2008, Water and Sanitation was transferred to MININFRA. MINERENA remained only with Integrated Water Resources Management

²⁸ That responds to 3.3.3 of the ToR

- Reasons for the variances from the proceeding analyses²⁹
- 143. First of all, the patterns of variances for the sector in Figure 11 are much similar to those of the public sector shown in Figure 9. As already shown in Figure 10, the tax revenue does not yet cover recurrent expenditure. This makes government expenditure vulnerable to external support. As a matter of fact, the public expenditure on goods and services, transfers and subsidies was lower than the budget figures. MINECOFIN's budget execution report for 2008 attributes this to non availability of additional donor grants to finance the contingent expenditures approved in the budget.
- 144. With regards to wages and salaries, there has been a failure by many agencies to spend on this item. Government centrally recruits, and at the same time, it is restructuring. Many established positions, like those of REMA, are not filled. Refunds of unutilized salaries have been made in the past. So until reforms are complete, some of the expenditures will not be fully absorbed.
- 145. Some causes of variations is as a result of cumulative nature of all of them. For example, REMA was first pre-occupied with putting in place standards and regulations, ahead of absorbing its budget for monitoring and inspection.
- 146. The failure to start and complete procurement on schedule, and staff turnover, retarded the absorption rates in some activities.
 - Intra-sectoral budget execution rate
- 147. The above factors explain also the variations in execution rates as shown in Table 17. In 2006, REMA overspent on environmental policy and sensitization.

Table 17: Intra-sectoral budget execution rates, 2005-2008

	2005	2006	2007	2008
Whole government	91.3%	101.1%	103.8%	98.7%
MINIRENA	85.9%	97.9%	103.8%	74.4%
(i) Land	147.8%	64.8%	96.0%	66.4%
(ii) Environment	116.5%	145.8%	90.9%	89%
(iii) Forestry	84.1%	97%	99%	68%
(iv) Water and Sanitation	86.7%	67%	106%	49%
(v) Mining	52.4%	45.4%	92.2%	73.8%
(vi) Ministry	82.3%	86.9%	120.5%	71.3%

- An analysis of development expenditure
- 148. MINIRENA and especially REMA are implementing several projects, which add value to their mandates. They are given in Annex 7. Their execution rates vary due to a wide range of reasons. They include; (i) late release of funds by the donor, (ii) delayed procurement, (iii) delayed sourcing of consultants. The PEER team considers the mainstreaming of CEPEX's operations into government budget as a pre-condition to fully understanding the nature and distribution of development budget among sectors.

²⁹ This is in response to 3.3.4 of the ToR.

- 149. With all the above, it is important to recognize that there are 5 facts to know with regard to aid in Rwanda, and its flow through development projects. They have been reported in other sections of this report. They are repeated here for emphasis:
 - (i) tracing environmental budgets and expenditure is still a challenge, which is not only unique to Rwanda
 - (ii) the main ten donors to Rwanda are shown in Table 10
 - (iii) the multiple financing modalities have been shown in Figure 6
 - (iv) the list of projects under MINERENA have been given in Annex 7 with the majority being implemented by REMA

4.3 Expenditure Analysis under MINAGRI

- 150. In conformity with Table 4 which lists the other sectors' programmes relevant to environment, this chapter reviews the experience and patterns of mainstreaming environment in other sectors, and putting them on the budget. As already mentioned, the main source of this analysis was the sectoral action plans. This was after it was found that Smartgov at MINECOFIN does not capture budgets for activities and outputs. They can only be verified from the source or origin. This fact has to be borne in mind in subsequent PEER in Rwanda.
 - Expenditure Analysis of agricultural intensification programme

The programme of intensification and sustainable agricultural production systems utilized more than 5 times the whole budget of ENR sector in 2008. However, analysis of its broken down development budget for 2009/2010 shows that sub-programmes on LWH, watershed management, swamp reclamation and irrigation would be equivalent to 40% of entire ENR sector budget. Accordingly, agricultural sector should be engaged to sustain environment on its budget, and to even increase it.

- 151. If there is a sector that has to mainstream environment as a priority, it is agriculture. In Rwanda, it accounts for 33% of GDP, 87% of employment, and substantial foreign exchange especially from tea and coffee. In a comparative analysis of EICV1, EICV2 and CRSS surveys, it has been established that the production of staple food crops in Rwanda had a positive impact on the poor [Scott Loveridge, Alastain Orr and Abdoul Murekezi, 2007]. Households with enough land to grow a wide range of staple crops, and where staple crops accounted for a higher share of the total crop production, were less poor than others. This suggests that the primary objective for smallholders in Rwanda is household food security.
- 152. It has been argued that in many African countries, growth in agriculture is the most effective strategy for reducing poverty and promoting overall economic growth (Dino, et al, 2007). As presented in the World Development Report 2008³⁰, agriculture based economies, i.e. the majority of developing nations, macro-economic development is spurred by agricultural development. Among 42 developing countries over 1981-2003, 1% GDP growth originating in agriculture increased the expenditures of the three poorest deciles at least 2.5 times as much as growth originating in the rest of the economy.

_

³⁰ IFAD internal communication

- 153. Under Rwanda's current Economic Development and Poverty Reduction Strategy (EDPRS) the agricultural sector is expected to play a key role in eliminating poverty. The key requirements for the sector to play this role effectively include *optimal utilization*, *sustainable management*, and conservation of environment and natural resources.
- 154. The GoR should go extra miles to realize this strategy because agricultural development is highly dependent on natural resources endowment such as the availability and suitability of arable land, fertile soil, climatic conditions and water. Besides, agricultural farming can be a major contributor to environmental degradation through pollution, greenhouse gas (GHG) emissions, deforestation and soil degradation. Extensive use of chemicals and pesticides has polluted rivers, lakes and other water resources and has bad detrimental effects on the health of farm workers (Food and Water Watch, 2008; Loukes, 2008; ETL,2008; Wee and Arnold, 2009). Agriculture also contributes to climate change, as it is the second largest source of GHG emissions-after energy- globally, accounting for 15% of global emissions (World Bank, 2007).
- 155. The time is now when Rwanda is still a recipient of substantial ODA to rediscover the central role of using agriculture among others, to put environment and natural resource management on development agenda. Otherwise, the global trends are discouraging. ODA to agriculture is systematically falling and to make matters worse, a high proportion of commitments to agriculture is not being met (Figure 13).

20.00% 10,000 % of total ODA 8,000 15.00% US \$million (commitments constant 2004) 6,000 10.00% 4,000 5.00% 2,000 0.00% 1980 1985 1990 1995 2000 2005

Figure 13: Trends of ODA to agriculture, 1980-2005

Source: OECD International Development Statistics reported by Lydia lidia cabra, l2007 opinion 86: Funding Agriculture; not "how much" but "what for".

156. MINAGRI is spearheading the implementation of 4 programmes. They are: (i) intensification and development of production systems, (ii) support to the proffesionalisation of producers' capacity, (iii) agro-industry promotion and agri-business development, and, (iv) institutional development. The first programme was analyzed to detail on its extent of mainstreaming environmental issues and budgeting for them from 2005 to 2008 because it interfaces with the use of land where there are concerns about land degradation, soil loss and exposure of the majority rural population to vulnerability.

- 157. The detailed sub-programmes under it varied by year after 2006. Nonetheless, the title of the programme was maintained. The specific sub-programs were: (i) sustainable management and preservation of soils, and natural resources, (ii) integrated system of intensive agriculture and livestock production, (iii) marshland development, (iv) irrigation development, (v) supply and use of agricultural inputs and mechanization, (vi) food security and vulnerability management. Lessons from the analysis of this programme are quite relevant because it represents 50% of the internally-financed budget spent by MINAGRI [JSA, 2009].
- 158. The sub-programmes mentioned above have been analysed in Annex 8 and Table 18 in relation to the entire budget to MINAGRI. To note is that in 2005, MINAGRI had a budget line for forestry resources, particularly agroforestry and reforestation. This line does not feature in subsequent years, understandably, it was reclassified under conservation of natural resources and soils (Annex 8).
- 159. In that year of 2005, the programme was termed, 'Water and Soil conservation'. It contained some of the sub-programmes for 2006, and their budgets and expenditure have been shown. However, it had an additional line budget called management support, which does not appear in the budget details for the subsequent years. Further, in 2006, MINECOFIN had not yet linked development budget programmes, and so, the proportion of the programme on agriculture intensification excludes that budget for both 2005 and 2006. In 2005, development budget was not reported.

Table 18: Percentage of actual expenditure to programme on agricultural intensification

	2005	2006	2007	2008
Gov't total (Rwf millions)	241,383	316,502	419,701	521,135
MINAGRI total (Rwf millions)	4,753	3,426	10,654	23,359
Total of programme on agric. intensification (Rwf millions)	157	1,575	2,715	19,389
% of MINAGRI to total expenditure of government	2.0	1.1	2.5	4.5
% of agric. intensification to MINAGRI's total expenditure	3.3	46.0	25	83

Source: MINECOFIN; Budget Execution Reports, 2004-2009

- (i) The programme on agricultural intensification has had its expenditure increase substantially, from 46% of MINAGRI's expenditure in 2006 to 83% in 2008, potentially providing an opportunity to fund environmental aspects too.
- (ii) However, when analysed broadly, MINAGRI did not command a big proportion of expenditure in 2008. It tool up only 4.5% before providing expenditures taking place at districts.
- 160. According to MINAGRI's PER, the execution rates of the programme have systematically improved over years, 82% in 2006, 98% in 2007 and 108% in 2008.
- 161. It needs to be noted that MINAGRI has several donor funded projects. They all need to be brought on budget. Suffice to mention that progress is being made.

- Practices in mainstreaming and budgeting for environmental issues
- 162. As it can be noted in Annex 8, the programme on intensification and development of sustainable production system is potentially central to sustainable natural resource and environmental management. Terracing and soil conservation is taking up substantial budget. It is an extremely liked sub-programme among farmers because they have started to register improved crop productivity.
- 163. Although some of the sub-programmes or projects were motivated by other reasons rather than conservation, with time the potential spin-off benefits are starting to be taken up. The 'one cow, one family' programme for example, was introduced when it was discovered that households without livestock were more likely to be lacking in nutrition. The cow dung is now a source of manure, and in few locations, it is also used for the generation of biogas. But it is also a source of green house gas emissions.
- 164. The Ministry is incurring expenditure for EIA for marshland development and LWH. It is going a step further to invest in land use consolidated farming. Farming is to be done under contract, company, or cooperative. It is envisaged this will generate economies of scale in production, marketing and for negotiating extension services. In the long run, the government plans to introduce a publicly funded but privately executed extension service. The Ministry is also spending money to generate information and knowledge prior to introducing sectoral reforms. This is true for studies on marginal lands, and land suitability. Importantly, it is starting to understand how to climate proof agricultural development, and how to introduce low carbon emission growth in the sector.
- 165. A good practice in its evolution stage is the sector's support to agricultural risk mitigation. This is being done under weather index-based insurance, which was tried between February and June 2009. In the scheme, the Ministry brought together SONARWA (insurer) and SORWATOM, a tomato paste factory and BPR, a banker (credit provider), and 500 member tomato farmers' cooperative. Under the pilot, 40ha with input loan of 36m Rwf were planted, 50% of which was covered by Agricultural Guarantee Fund (AGF) and 50% was insured.
- 166. The pilot scheme generated interest in the insurance product among the participating stakeholders. The only challenge faced is that farmers suffered losses of their crops, due to a factor that was not insured, that is the outbreak of disease.
- 167. No doubt, the above insurance product relies on time series of well collected weather data. By implication, further development of the product may invite substantial public expenditure for the improvement of weather collection stations in the whole country.
 - Pending challenges and constraints in agriculture
- 168. There are a few environmental challenges to be studied and addressed. It has been reported that soil protection activities have not been successful despite many public awareness campaigns and mobilization through community development works ("*Umuganda*") (PER 2007). It would be important for the MINAGRI, working with other stakeholders to establish the barriers among the households.

169. The government is spending heavily on subsidizing fertilizers, estimated at Rwf 1.50 billion in 2008 (PER-2007). It is known that economic returns to using fertilizer are very negligible because of the high costs associated with its importation to a landlocked country. Spending some of the above money to systematically help farmers restore ecosystem functions on their land through legumes, agro-forestry, etc, could be the way to go. Given the steepy nature of the terrain, it cannot be ruled out that some fertilizer is lost. Subsidized fertilizers could act as a disincentive to adoption of alternative land use practices.

4.4 Expenditure analysis under MININFRA

MININFRA's broken down recurrent and development budget for 2009/2010 for improving and substituting biomass energy for the poor is equivalent to 70% of the forestry resources budget under ENR sector for the same period. The budget it absorbs for sanitation and hygiene is also high.

- 170. MININFRA has the mission to 'ensure sustainable development of infrastructure covering transport, energy, housing, urbanization, meteorology as well as water supply and sanitation and drive forward economic growth, with a view to enhancing the quality of life of the population³¹. This sector was analysed in-depth for its ability to mainstream environmental issues and budgets for them. The motivation is that in 2008, it absorbed 39% of the development budget.
- 171. In the Action Plan for 2008, it was difficult to pull out budgets for environmental activities, particularly those for pro-poor because budgets were lumped for several activities. A step was taken to review the 2009/10 Action Plan where the above problem was somehow addressed (See Table 19).
- 172. When the activities were further re-assessed in relation to the MININFRA's budget, it was found that overall; they would absorb 3.4% of its development budget for 2009/10.
- 173. However, under housing and urban development, MININFRA has issued a standard to the effect that private housing estate developers must install sufficient waste water and sanitation facilities on site. This recognizes the very limited public infrastructure in Kigali. At minimum, each private investor will be incurring US\$25,000 for the facility.

_

³¹ Budget Law, 2009

Table 19: Budgets for environmental activities in MININFRA's annual work plan

Act	tivity	Annual budget (Million Rwf)
En	ergy	
1.	Studies on renewable energy	100
2.	Substitution of wood	1,487
Water and Sanitation		
1.	Water, sanitation and hygiene	102
2.	ECOSAN demonstration at households	85
3.	ECOSAN demonstration at schools (Nyaruguru + Huye)	206
4.	Coordination of water, sanitation and hygiene activities	392
5.	Sanitation facilities in Rubaru, Musanza, Burera	233
6.	Rain collection system at public buildings to control	275
	waste water and erosion	

Source: MININFRA's Action Plan, 2009/10

- 174. There are other environmental related costs being incurred as either part of the procedure or design which are not always reflected as stand alone in the activity budget. Such include EIA costs, costs for studies, and cost implications of designing a road so that water flow does not cause erosion.
- 175. There are important lessons and opportunities that one can draw from MININFRA's Action Plan 2009/10. They are categorized as follows:
 - Every water supply component has a sanitation component
- 176. MININFRA is popularizing ECOSAN technologies at households and schools
 - Pro-poor investments, especially in energy
- 177. MININFRA is investing in adoption of technologies for energy use by the poor (e.g. energy cooking stoves, biogas digesters and LPG)
 - *Investing upstream in legal framework*
- 178. In order to leave behind a standard, MININFRA is using its downstream activities to inform the formulation of national biomass energy strategy, environmental tax, simplification for charcoal producers, environmental fiscal incentives for LPG, safety standards for LPG, to mention but a few.
 - Linking public funded activities to private enterprises
- 179. To ensure long-term sustainability and integration of its activities into the market, MININFRA is taking a deliberate strategy to train private companies that will do similar activities as business. That is true for local producers of energy saving stoves, producers of charcoal, and installers of biogas digesters. This is a noble approach because in the long run, it will reduce the dependency on public expenditure to deliver the same service.

- Planning to use environmental fiscal incentives
- 180. To promote fast access to pro-poor and affordable energy technologies, MININFRA is planning to use environmental fiscal incentives. Specifically, it is proposing simplification of taxation for charcoal producers, fiscal incentives for promotion of LPG. If introduced, the incentives could reduce the barriers of accessing alternative technologies by the poor.
 - Mainstreaming the budgets for school sanitation into MINEDUC's budgets
- 181. MININFRA is incurring expenditure for schools (school hygiene). A better approach would be MINEDUC to take on the budget for that activity, but it could enlist MININFRA's technical guidance. The practice would then be fully integrated into schools and MINEDUC budgets. It is only then that MINEDUC will appreciate how to handle environmental issues of school populations.
 - Blending environmental qualities in Imidugudu
- 182. It did not appear apparent in the Annual Plan that promotion of *Imidigudu* would be blended with environmental qualities. That component is allocated only a recurrent budget of Rwf 14,961,790 at Ministry level. Key aspects that could be integrated are: surface rain-water harvesting, underground water rain-water harvesting, ECOSANs, provision for biogas digesters and LPGs, orchard trees for food and wind-breaks, most of which fall under the same Ministry. Some of these practices of blending environmental qualities in *Imidugudu* were mentioned for Giswati, near Nyungwe forest in Western Province. They need to be up-scaled in subsequent designs of *Imidugudu*.
 - Need for inter-sectoral coordination
- 183. MININFRA's activities on biomass energy link to NAFA's tree planting activities. The two would need to coordinate with each other for synergic impacts.
 - Lack of investment in waste water treatment
- 184. Delayed expenditure for the urban waste and sewerage plant is increasing the costs of commercial building particularly in Kigali because each builder has to meet his/her costs.
 - Private sector involvement in waste management
- 185. The growing interest by the private sector firms, associations, and co-operatives in solid waste collection sends a message that municipalities cold continue to make savings by sub-contracting the private sector.

4.5 Public expenditure analysis for MINICOM

MINECOM has been spending on biodiversity conservation and development of standards, including those for environment. It has more scope to enlist the private sector for environmental compliance.

- 186. Under MINICOM, the team tested whether the Ministry could have incurred public expenditure under its outputs of: (i) Monitoring of policies of trade and industries, (ii) promotion and oversight of key industries and (iii) establishment and maintenance of quality standards. The GDP figures show that industry's contribution to GDP has slightly increased from 14% in 2005 to 15% in 2008. Nonetheless that growth comes along with the use of a wide range of inputs, waste and effluent generation, all of which have to be contained within acceptable limits.
- 187. It was found that at several times, MINICOM has used the budget under its control to develop some environmental standards. Examples are standards for emissions (cement), drinking water quality, industrial water quality, air quality and quality for water for irrigation. This was possible because the Ministry has a Unit for Environmental standards, and because REMA worked proactively with it to guide the prioritization of standards. This is a case which demonstrates that with engagement and awareness, many institutions would put environmental issues on their budgets.
- 188. With recent establishment of the Cleaner Production Centre, many industries will come forward to improve their efficiency in the use of materials, energy, water to mention but a few.
- 189. The analysis of the 2008 Action Plan for the Ministry provides an indication that the Ministry budgeted for some environmental activities e.g. biodiversity conservation (Table 20). With some sensitization, the existing budgets could also be used for environment e.g. inspecting factories for pollution.
- 190. When this sector was visited, it was found that little did it know that it was already addressing environmental issues with its budget. These are opportunities the ENR sector and REMA in particular should capitalize on to hasten putting additional environmental issues on budget.

Table 20: Budgets under MINICOM that can benefit environment

Activity		Budget (Rwf millions) 2008
A. Tourism promotion	• Implementation of agreements with bordering	189
	countries to protect endangered species	12
	Construction of valley dams and electric fencing Agreements to be signed to being Phines in	13
	 Agreements to be signed to bring Rhinos in Akagera National Park and conducting feasibility studies 	
B. To Develop standards ³²		
1) Develop procedures and	75 mandatory standards are developed and published	900
declaration of certain Rwanda standards as mandatory		
2) Carry out trainings on development of standards	24 training programs to be carried out	487
3) Carry out inspections in	156 hotels, 96 restaurants, 120 markets and 8 border	350
factories, SMEs	posts are inspected	
4) Put in place a proper	Purchase calibration facilities	450
metrology system		
5) Work with farmers in using new standards	500 certificates to be issued	940

Source: Government Action Plan 2008

4.6 Public expenditure analysis under MIJESPOC and MINEDUC

MININFRA was found to have budgeted for sanitation and hygiene for schools. A more sustainable approach would be for MINEDUC to budget for such activities. It could solicit for technical backstopping from MININFRA. Only then would MINEDUC appreciate how to handle environmental issues associated with school populations.

- 191. The public expenditure reviewed in MIJESPOC pertains to the setting aside of parks, beaches and keeping them clean and safe for public use. The Action Plan 2008 suggests that there were no activities budgeted for in that regard.
- 192. Under MINEDUC, there was no visible environmental activity. However, and as already observed, MININFRA spent some money for ECOSAN technologies in several schools. The team would recommend that MINEDUC be the one to mainstream these interventions in its own budgets.
- 193. Further, there are some activities already budgeted for but which, with minimal re-orientation could add value to environment. Rainwater harvesting in support of school sanitation and hygiene could be integrated with several classroom blocks, dormitories, hostels for students and teachers planned for construction. Likewise, environmental education could be made integral to the curriculum and teaching materials to be developed for secondary schools.

³² This is not exclusive for environmental standards only, but for all standards, including those for environment (e.g air quality)

4.7 Public expenditure analysis under MINALOC

MINALOC has included environmental protection as one of the areas to benefit from earmarked conditional grants to districts. The allocation for 2009/2010 (0.13% of the district's budget) is so small that at best it could be used to trigger additional resources rather than address environmental issues.

- 194. MINALOC's strategic position in environmental management stems from its mandate for policy elaboration, capacity building, resource mobilization and monitoring and evaluation in support of decentralization. It has a budget line for environmental protection for districts. In 2008, it did not command a budget. In 2009, each district is expected to get Rwf 10 million.
- 195. MINALOC has finalized a Capacity Needs Assessment for districts, and formulated a Capacity Building Plan. Its implementation will be overseen by the National Decentralization and Implementation Secretariat. A Capacity Building Basket Fund has also been established. Its use will be overseen by the same Secretariat. It is hoped that each line Ministry will support districts in the capacity building over those functions they offer oversight.
- 196. Prime Ministers Office (PRIMATURE) in collaboration with MINALOC annually monitors and evaluate the performance of districts after agreeing on criteria to use. The Office of the Auditor General also conducts financial and value for money audits. Those who have faulted in accountability have been remanded.
- 197. There are two planned activities by MINALOC which should be of interest to the ENR sector. The first one is that the ministry accepts districts may not be getting enough resources to match the responsibilities devolved to them. It is commissioning a fiscal census study to establish the potential for districts to finance themselves using locally raised revenues. It will be of particular interest to measure how much of the existing revenue is natural resource based.
- 198. Secondly, MINALOC plans to cost how much districts would need to deliver on their mandates. Since they have a lot of responsibilities for environmental management, ENR sector should lobby to ensure that staffing to deliver those functions is also included in the on-going reforms.

4.8 The role of MINECOFIN in influencing PEER

MINECOFIN has primary role of building sectors' capacity in linking budgets to plans, and in carrying out PERs. Only then will the sectors have uniformity and consistency in budgeting, reporting and accounting for the use of public expenditure.

- 199. MINECOFIN's role in this PEER has been analysed under 3 perspectives, namely:
 - i) the macro-economic framework
 - ii) the guidelines for planning, budgeting public expenditure generally
 - iii) the guidelines for budgeting for cross-cutting issues, and environment in particular.

- Macro-economic framework
- 200. The macro-economic framework 2008-2010 was reviewed as a case study. It reveals that the primary sector (agriculture³³) would grow from 3.4 % in 2008 to 5.9% in 2010 in real terms, averaging 5.0%. It goes on to state that this period coincides with a multitude of agricultural policies culminating to increasing input use and productivity, (such as the GoR fertilizer policy, water harvesting, terracing and extension services). There are however, indications that as a result of adverse weather conditions (climate change), food production many be lowered than estimated. There is therefore an alternative scenario, which projects lower growth in the primary sector; of about 1.5% and therefore forecast overall GD growth of about 5.5%.
- 201. A positive reaction in the framework is that the MINECOFIN accordingly proposed to increase budget expenditure allocation in the productive sector³⁴ from 40.2% in 2007 to 54.0% in 2008.
- 202. It cannot be deduced fully whether the desire to increase public expenditure was also influenced by the likely consequences of **climate change**. If the answer is in the affirmative then that is commendable. But climate change does not only affect the productive sector. It affects health and infrastructure to mention others. The implication is that the likely impact of climate change (if known) should have been translated into financing costs and allocated to all the sectors to be affected negatively.
- 203. Nonetheless, the fact that the MINECOFIN brought out the issue of climate change is a good starting point. Subsequently, it could go a step-further to describe the inter-sectoral impacts and the implication they should have for the level and inter-sectoral allocation of expenditure.
 - The guidelines for planning and budgeting
- 204. The Guidelines for Planning, Budgeting and MTEF 2008 which apply to all the sectors have good attributes which would equally benefit ENR sector. They demonstrate that: (i) it is possible to link planning, budgeting and indicators, (ii) it is important to align sector plans to EDPRS. They have also underscored the importance of PERs, and provided the criteria for prioritizing public expenditure (Box 5).
- 205. According to MINECOFIN, sectors have differed in the way they have used the guidelines. Notwithstanding the problem of turnover, MINECOFIN has the lead role to train sector planners so that ultimately, it receives information and data that are uniformly and consistently prepared.
- 206. Unlike the previous years when the guidelines put emphasis on gender, the 2008 Guidelines fully reflected environment (see Box 7). That was important but not enough. Sectors want to know **how** to **first** identify environmental issues and **second**, how to reflect them in their budgets. From the foregoing sections, it will be the **activities** as shown in the annual action plans that will be the entry points for putting environment on budget. MINECOFIN working in close cooperation with ENR SWG need to embark on this activity immediately.

³³ Compared of food crop, export crop, livestock, forestry and fisheries

³⁴ That includes agriculture, industry and commerce, environmental protection and CDF

Box 7: Environment as cross-cutting issue enters budgeting guidelines

Cross-cutting issues: Sectors should specify how they are mainstreaming cross cutting issues into their sector strategies. Cross cutting issues identified are: Gender Equity, Environment Sustainability, Social Inclusion, HIV/AIDS, and Youth. Checklists for each cross cutting issue have been elaborated and will be made available by the relevant Ministries/Agencies: MIGEPROF (gender), REMA (environment), MINALOC (social inclusion), CNLS (HIV/AIDS) and MINIJEUNES (youth).

Source: MINECOFIN [2008]: National Planning, Budgeting and MTEF Guidelines

4.9 Comments on efficiency, effectiveness and sustainability

- 207. A major task for the PEER was to assess the efficiency and effectiveness of public expenditure. A unique challenge was that there were no priori outcomes by which the sectors collectively committed themselves to achieve for environment. This for example, contrasts with sectors like education and health where homogeneous indicators (e.g female enrolment, student-teacher ratio, infant mortality rate e.t.c) are used systematically over years, and in comparison with other countries. Further, in Rwanda, there has been a practice to budget by activity. It is of recent that it is adopting the results based budgeting. That is a reform in the right direction.
- 208. Despite the limitations, the examples for assessing efficiency and effectiveness can be on a case by case basis. For example, it is reported in section 5 how the cost terracing is inefficiently higher in one location compared to other four sites (Figure 17). On the other hand, it was found that at only 4% of intermediation, channeling development budget through CDF is very cost effective (Figure 14).

5. CASE STUDY 1: FINANCIAL FISCAL DECENTRALIZATION FOR ENVIRONMENT

As the institutions close to the people, districts have strategic roles to make a difference in environmental management. Unfortunately, there is a mismatch between the funds allocated and responsibilities devolved to them. The government has commissioned a study to cost the implementation of the decentralisation policy in general under which the support for environment could also be determined.

- 209. The motivation to study fiscal decentralization for environment in detail arose out of the fact that Law N°.04/2001 Article 9 decentralized a lot of activities to districts, many of which can directly deliver environmental benefits. They are summarized in Box 8³⁵. In the interest of this study, PEER team sought answers to the following questions:
 - (i) what are the policy directions for decentralization in Rwanda?
 - (ii) how much resources have districts absorbed over years?
 - (iii) do the resources to districts match the responsibilities assigned to them, including those for environment?
 - (iv) how do the line ministries and SAGAs relate and support districts in environmental management?
 - (v) how do the districts plan and prioritize issues on environment?
 - (vi) how are the districts are funded?
 - (vii) how is the districts' performance is monitored and reported?
 - (viii) how are the districts' capacities being developed for environmental management?

Box 8: Districts' and Towns' Responsibility under decentralisation

The District assumes the duties and responsibilities that are assigned to it by law and regulations, notably with regards to policy, administration, the economy, the welfare of the population and culture. The district is especially responsible for the following sectors:

- Agriculture, Animal Resources and Forestry;
- Commercial activities in the District:
- The development of small scale industries working within the District;
- Sanitation in the District;
- Water works and their maintenance
- Tourism and the environment
- Land use, organization and distribution of plots in the District
- Emergency Services in the District

Source: Law No. 04/2001 Article 9

_

³⁵ See 3.3.8 and 3.3.9 of the ToR

- 210. In 2000, the GoR formulated a decentralization policy. By 2006, it had already picked some lessons which enabled it sharpen its policy further. This new policy gave districts three objectives on which to deliver. They are: (i) developing an efficient and sustainable resource mobilization base for local communities, (ii) providing the resources for equitable development at the local level and, (iii) strengthening planning and management capacity at the local level using a participatory approach.
- 211. Rwanda's National Public Investment Policy 2009 calls for "Balanced and Integrated regional programs, and optimal geographical allocation of public investments". Public investment should be gender-sensitive, pro-poor, pro-employment, **pro-nature** and distributed **evenly** across the regions. Furthermore, basic infrastructure, complementary human resources and private sector development initiatives should be integrated and distributed in all key "growth and development poles" within the country so that benefits from them can be maximized for the common interest. The word **pro-nature** should be marked in the policy.
- 212. In terms of structures, Rwanda has three main levels of government: central government, 4 provinces plus Kigali city and 30 districts (akarere). Below districts are two additional administrative levels: 416 secteurs (*imirenge*) and 2150 cells (*imidugudu*). The central government ministries supervise semi-autonomous government agencies (SAGA). It is the Ministry of Local government (MINELOC) that supervises provinces and districts. Provinces are mainly coordination bodies while Districts are the main recipients of central government transfers.
- 213. Districts are composed of both the political and technical organs. The former is an elected District Council, which acts as the legislative body at the District and adopts the district budget. It is headed by an elected Mayor and vice mayors. The latter is headed by the Executive Secretary.
- 214. Centrally, as the supervising line ministry, MINELOC performs few functions of policy elaboration, resource mobilization, capacity building and monitoring and evaluation. On the other hand, other line ministries provide oversight and mentor districts to carry our specialized functions.
- 215. The purpose of making intergovernmental transfers to sub-national administrations is to (i) provide them with the means to carry out the functions and responsibilities that have been devolved, and (ii) to correct the economic and social distortions that exist between Districts. The Policy intends to establish an efficient system of transfer of Central Government resources to the level of service delivery.
- 216. Given the limited capacity of districts to raise own revenues³⁶, over the short to medium term, the majority of service delivery will be financed through a series of earmarked grants, whilst block transfers will fund administrative functions at the districts and provide discretionary funds to supplement earmarked allocations to service delivery.

³⁶ Over 90% of district government revenues come from central government transfers. The exception is the City of Kigali, which raises around one third of its revenues from municipal taxes and fees.

- 217. The current system of **intergovernmental fiscal transfers** is based largely on three flows of resources from the central Government to sub-national governments:
 - (i) an un-earmarked block grant (the so-called Local Authorities Budget Support Fund, LABSF) from central Government to finance administrative costs (including salaries);
 - (ii) grants earmarked for the delivery of specific public services at sub-national level;
 - (iii) a development grant through the Common Development Fund (CDF) to fund capital projects.
- 218. Earmarked funds accounted for around 87% of central government transfers to districts in 2007. Some of these funds are paid in ways, which encourage local providers to improve service delivery. For example, the Ministry of Education funds primary education through capitation (per capita) grants. So, if enrolment increases, so does the revenue of the school. In addition, a significant level of international funding contributes to local development priorities on either an on- or off-budget basis.
- 219. The relative importance of these three main sources reflects the current status of the decentralisation process. Whilst the long-run objective is to *devolve* services, which are currently *delegated* to local government level (which implies a progressive *decline* in the use of earmarking), the requisite capacities of local governments and the associated mechanisms for managing devolution have yet to be established for this in the majority of line ministries.
- 220. As a result, the **unconditional block grant** has currently been increased from 3 to 5% of domestic revenue, which provides for little more than the operating costs of local governments. It is expected that this grant will increase in (relative and absolute) importance over time as devolution becomes more effective. The horizontal allocation of the block grant among local governments is governed by a formula determined by Cabinet decree which is based on population, revenue per capita, area, 'percentage increase in revenue collection' (an incentive component with regard to revenue generation) and 'financing gap of district' (with respect to operating cost an equalisation component). According to MINECOFIN, the allocation is made in a way to encourage and stimulate increased local resource mobilization. However, the current formula has been changed several times and a thorough review is outstanding.
- 221. **Earmarked sector grants** are determined by and operated through the budget process of the line ministry with oversight responsibility for the function concerned (e.g. Ministry of Health, Education). In the budget preparation process, line ministries indicate the level of earmarked resources (recurrent and development) to be transferred to each district under the various budget programmes (at the *Strategic Issues Paper* stage of the budget preparation process). In most cases, allocation is already based on transparent formulae³⁷ or sectors are expected to improve on their allocation formulae in 2008 and beyond. Disbursement is linked to certain formal requirements, which are specified in manuals.³⁸

³⁷ (e.g. in the education sector where capitation formulae operate and in the health sector where performance-based formulae operate)

³⁸ In summary sector conditions contain the following:

[•] A specific set of services under the mandate of local governments (e.g. primary education), which they would be required to deliver.

- 222. **Transfers through the CDF** come from the Government budget as well as donors. GoR has committed itself to channel an amount equivalent to at least 10% of the previous year's domestic revenue collection to the fund. Further funding for the CDF is provided by the donor community. At the outset, the allocations from the CDF to districts were equally among districts. This method of allocation was replaced in 2005³⁹ with a dedicated formula, proposed by the Board of the CDF and approved by the Cabinet, based on population size, geographical area and indicators relating to household welfare and access to basic infrastructure within each district. Previously, access to CDF funds, however, requires district governments to go through a project preparation process and to submit documents related to the progress of works before disbursements become effective. Now, districts ask for funds in support of their budgets.
- 223. Overall, there are very limited resources flowing to the districts. It is estimated that they spent 17.6% of the budget in 2008. It is also argued by line ministries that some of their budgets also benefit districts (e.g infrastructure). According to the staff at MINELOC, they confirmed that there is a mismatch between the responsibilities devolved to districts and the resources allocated to them. They are grossly under-resourced. Aware of this, MINELOC is commissioning a study to **cost** how much would be required to enable districts execute decentralization policy, and related development programmes. It is hoped that the study's findings will be out by the end of November, 2009. As of now, it can only be stated that funding for environmental management responsibilities at districts is falling short like it is in other sectors. The ENR sector should lobby to ensure that the costing of delivering environmental objectives and related staffing are included.
- 224. When the District Development Plans for Kicukiro, Karongi , Nyamagabe, and Bugesera were reviewed for the period 2008-2011/12, it was evident they have prioritized more or less same environmental issues like; (i) protection and hygiene in all schools, (ii) to eradicate endemic diseases like malaria, (iii) to ensure hygiene and environmental protection in homes, (iv) to promote conservation and protection of land, (v) to arrange marshes, (vi) to diversify and rationalize rural energy and (vii) protect the environment. It was found out that to address short term capacity gaps, ENR sector provided **a checklist** for use in planning. That explains similarities among district plans.
- 225. Districts were found to follow the same patterns and codes for reflecting their budgets. Alongside programmes to be implemented, they show whether the expenditure will be met form locally generate funds, central government transfers, donors or a combination of these. One common pattern among districts is that they try as much as possible to allocate their internally generated resources to as many programme areas as possible including those relevant to environment. This practice greatly contrasts with other funding methods which are tied to specific programmes.

[•] Output targets to be achieved by the local government over the budget period (e.g. classroom to pupil ratio, or number of people served with water)

[•] Agreed quantity of activities, as proposed set out in the annual action plan (e.g. number of classrooms built).

[•] A limited number of input conditions for the use of earmarked grants (e.g. a minimum share to be spent on water harvesting structures or transferred to schools).

³⁹ Effective for the first time in 2006.

- 226. A review was made about district's capacity to execute projects, especially those that could benefit environment. The finding in Table 21 is that their execution rates have been impressive in 2007 and 2008. They should thus increasingly be allocated more resources.
- 227. A critical analysis was made of the districts' programme and sub-programmes and their budgets for 2008 (Annex 9). The type of activities that could have drawn from budgets or could do so in future are shown in a separate column. It is possible that some of them could have required resources (e.g. incentives for improving access to energy by the poor), but others could have been accommodated with the same budgets (e.g. coordination of environmental projects). These examples have been given to convey the message that one of the strategies to adopt for environmental financing, is to build upon existing budget lines.

Table 21: Execution rates by districts for selected programmes, 2007-2008

	Budget	Actual	Executed	Budget	Actual	Executed
	0.001.07	0.254.40	1000/	(0.000.4)	<0.4.	0=0/
Total block + earmarked	8,204.96	8,354.49	102%	69,998.46	68,154.55	97%
transfer to Districts						
1. Diversification of energy	30.96	30.96	100%			100%
2. Intensification and	1,855.40	1,855.40	100%	858	856.9	100%
Development of sustained						
production system						
(MINAGRI						
3. Forestry resource	516.56	531.70	103%	1,455.30	1,455.30	100%
management (MINITERE)						
4. Water and Sanitation				54.2	54.2	100%
5. Habitat and urban				99.9	99.9	100%
development						
(MININFRA)						
6. Land planning and	150.00	150.00	100%			
management						
Sub-total Sub-total	2,552.92	2,598.06	101%	2,467.40	2,466.3	100%

- 228. The Common Development Fund (CDF) was established in 2000 under Law N^0 . 20/2002 as a financial intermediary for the implementation of the decentralization policy. The objectives of CDF are as follows;
 - (i) to finance development projects equitably among the Districts, Towns and City of Kigali
 - (ii) to monitor the use of the funds allocated to development projects in the same entities and,
 - (iii) to serve as an intermediary between the Districts, Towns and City of Kigali, on one hand, and the donors who are specifically involved in financing development projects in these entities on the other hand.
- 229. Owing to its effectiveness, CDF is now handling other specific funds to *Umudugudu* under the special framework of UBUDEHE programme. These funds are used at the household level for agriculture, small trade, handicraft etc.
- 230. To keep CDF as a cost-effective and responsible intermediary, presidential and Prime Minister orders have been given at different times to determine the line ministry for CDF, salaries, wages of staff, appointment of the Board and its seating allowances among others.

231. As a matter of fact, the evidence as shown in Figure 14 is that generally, the costs of intermediation of only 4% through CDF are not only falling with volume of grants handled, but it is also below the rule of thumb's average of 10%. ⁴⁰ The policy implication is that as long as CDF remains cost-effective, it will benefit the government and donors alike to channel funding through it.

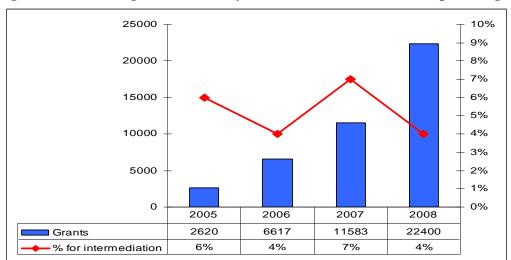


Figure 14: Trends in grants handled by CDF and related intermediate percentages

Source: CDF Annual Reports

- 232. In terms of focus, CDF funds capital projects **demand driven by districts**. Presently, there are structured among ten categories, one of which is environmental protection. The category covers erosion control by both radical and progressive terracing, soil control measures, reforestation and environmental mainstreaming in projects. As of 2008, environmental conservation projects took the 5th position. In 2007, they took the third position, with a concomitant budget of Rwf 3.4 billion, taking 12.6% of the Rwf 27.3 billion funding (CDF Annual Report 2007).
- 233. They were rivaled by transport infrastructure (23%), income generation (23%), administrative infrastructure (17%) and water and sanitation (13%). To note, is that it is government contribution through CDF that benefited many projects. This is partly because it does not earmark its funds through CDF as some donors do (Figure 15 below).
- 234. In the past, some donors have been earmarking their funding through CDF, a move that undermines the principle of **equitable** distribution under CDF. It was gathered that this distortion is to be overcome by reducing their funding from what would normally have been transferred to districts through CDF.

_

⁴⁰ See3.3.6 of ToR

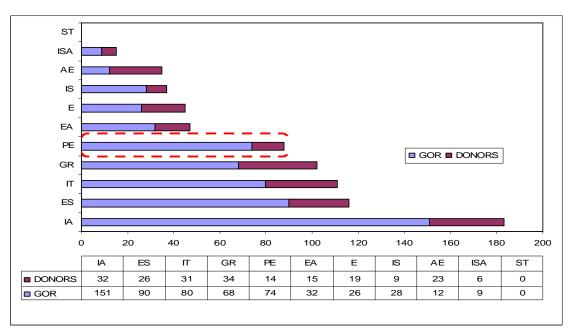


Figure 15: Ranking of CDF funded projects by their source of funding, 2002-2008 (n=799)

Source: CDF Annual Report, 2008

- 235. According to Law N°. 20/2002 establishing CDF government is supposed to transfer 10% of its internally generated funds through CDF for demand driven capacity projects. From Figure 14, it would give the impression that it is still falling short of meeting its target. However, it is also true that the government's internally generated funds are spent for development projects at districts through earmarked conditional grants. Nonetheless, additional features in Figure 16 are that;
 - (i) the government pattern of funding is still falling short, but growing and predictable.
 - (ii) the donors' funding through CDF is high but unpredictable.
- 236. Over time, the needs of districts have changed among the portfolio of capital projects. As part of the process to deepen decentralization and fiscal transfer, the government should review the balance in terms of funding modality between CDF and earmarked transfers. This is more so in view of the fact that (i) districts are not well resourced in relationship to their responsibilities, including those for environmental management and, (ii) they have demonstrated capacity to execute the projects under them (Table 19).

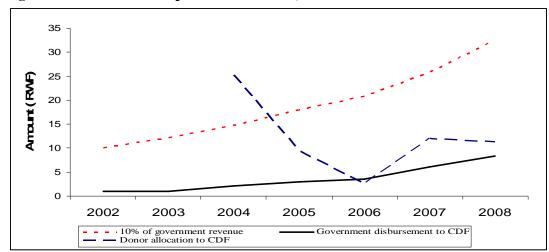


Figure 16: Trends in the capitalization of CDF, 2002-2008

Source: CDF Annual Reports

- 237. In 2005, CDF developed a distribution formula of its grants to districts. It was approved by the cabinet and became effective in 2006. The formula has the following insights. It was found that the process of redefining the formula has commenced. (See table 22 below).
- 238. The PEER team considers the recent changes sufficient to recognize inter-district variations. However, one additional feature that could be factored into the formula is vulnerability to climate change impacts.

Table 22: Planned and current formulae for disbursements under CDF

Planned Criteria	Planned weight	Actual criteria	Actual weight
Population	(10%)	Population	20%
Poverty	(20%)	Living conditions of the population	40%
Area in square km	(5%)	Area in square km	10%
Transport infrastructures	(25%)		
Energy, water, and telecommunication energy	(15%)	Access to water and electricity	30%
Income generating infrastructure: markets, bus stations, etc	(10%)		
Oropraphic configuration (abrupt hills are more erosion-affected than plain regions	(10%)		
performance	(5%)		

Source: Nina Boschmann [2008]

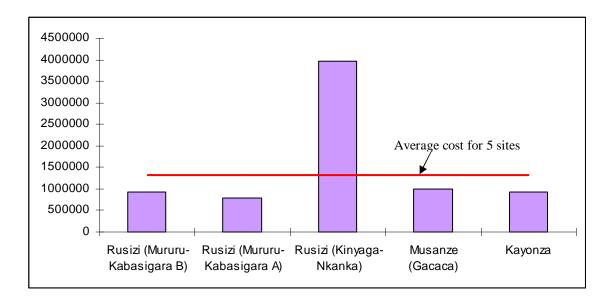
239. There are many repetitive and highly prioritized environmental interventions at districts. They include water and conservation intervention, terraces, raising of seedlings for reforestation, etc, etc. In some districts, choice is made to use prisoners. Whatever the case, all relevant stakeholders should provide some basic costing within whose range the budgets should be built. In a case study below, the district with minimum cost for anti-erosion could have done more with the budget of the highest spending district. (Table 23).

Table 23: Divergence of unit costs among environmental interventions

Int	ervention	No. of districts	Max.	Min. cost	Average	Difference
		studied	cost		cost	between Max.
						& Min.
1.	Anti-erosion (@ ha)	7	338,180	143,000	227, 542	195,180
2.	Radical terraces@ ha)	4	1,510,000	972,207	1,204,766	537,793
3.	Seedlings@ each	5	79	25	40	54

240. Price variations may be acceptable by location. However, there are instances which should invite minds of inquiry when unit costs for similar interventions greatly differ (Figure 17). The main lesson is that the government must introduce value-for-money audits in addition to analyzing public expenditure by execution rates. The latter may conceal inefficiency.

Figure 17: Comparison in unit costs for land terracing in 5 locations



7. CASE STUDY 2: SEMI-AUTONOMOUS AGENCIES IN ENVIRONMENTAL MANAGEMENT

The primary mandate of ensuring that environmental issues are integrated in all developmental plans compels REMA to work with and through other institutions, including using their budgets. It neither has enough resources nor field presence to do it on its own. Its comparative advantage will be marshalling of technical expertise, cross-sectoral coordination and advocating for improved environmental financing.

6.1 Institutional mandates and niches of REMA and NAFA

- 241. Environmental management issues in Rwanda took centre stage in 2005 when the government enacted Organic Law No.4/2005 determining the modalities of protection, conservation and promotion of environment in Rwanda. In accordance with this law, the GoR went a step further to establish Rwanda Environment Management Authority (REMA under Law No. 16/2016 determining the organization, functioning and responsibilities of REMA). According to the same law, REMA is a public establishment with legal personality and can enjoy financial and administrative autonomy for the implementation of Organic Law.
- 242. When one reads Article 3 of the above law establishing REMA, one gets the understanding that the government established REMA as an Authority with a principle purpose but with multiple roles and functions. The principal purpose is "supervision, following up and ensuring that issues relating to environment receive attention in **all** national development plans". Like in many other countries, an agency like REMA has responsibility to guide and continually advocate for sustainable development practices in all national development plans. In turn, that calls for building its own capacity and that of other sectors.
- 243. The key responsibilities which the Organic Law No 4/2005 placed on REMA are:
 - (i) advise the Government on legislative and other measures for the management of the environment or the implementation of relevant international conventions, treaties and agreements and advise the Government on regional and international conventions, treaties and agreements to which Rwanda should be a party and follow up the implementation of such agreements.
 - (ii) carry out surveys, which will assist in the proper management and conservation of the environment.
 - (iii) undertake and coordinate research, investigation and surveys, collect, collate and disseminate information on the findings of such research, investigations or surveys.
 - (iv) identify projects and programmes for which environmental audit or environmental monitoring must be conducted and conduct such environmental monitoring
 - (v) initiate and evolve procedures and safeguards for the prevention of accidents, which may cause environmental degradation and evolve remedial measures where accidents occur such as floods, landslides and oil spills, etc.

- (vi) initiate and evolve procedures and safeguards for pollution control.
- (vii) undertake, in cooperation with relevant lead agencies, programmes intended to enhance environmental education and public awareness, about the need for sound environmental management, as well as for enlisting public support and encouraging the effort made by other entities in that regard.
- (viii) publish and disseminate manual codes or guidelines relating to environmental management and prevention or abatement of environmental degradation.
- (ix) render advice and technical support, where possible, to entities engaged in environmental management, so as to enable them to carry out their responsibilities satisfactorily.
- (x) prepare and issue a bi-annual report on the State of Environment in Rwanda.
- 244. It is evident that the GoR wanted to add value to the institutional landscape for environmental management by establishing an **apex** authority on environment called REMA. In many countries, Africa inclusive, the establishment of agencies for environment by different names came after the Rio 1992 realization that growth was being pursued at the expense of environment. Subsequently, when many of them underwent the National Environmental Action Plan (NEAP) processes, they discovered that lack of 'watch-dog' on environment was partly responsible for the problem described above. It is thus no wonder that REMA was also given the same role- to supervise and monitor other institutions on matters of environment and to ensure that they integrate environment in their plans. That is the biggest value addition that REMA brings. It is important that REMA critically assesses itself over time particularly with regard to commanding the political clout over other agencies, and to seek additional legal backing if need be.
- 245. No doubt, the establishment of REMA brought a change within the country that many individuals and institutions alike are yet to internalize and appreciate. The unique feature of that change is the supervising and monitoring role, which requires high diplomacy, tactic and clout. Government should continually assess whether REMA is acquiring these critical attributes for its work.
- 246. On the other hand, Law No 17/2008 established the National Forestry Authority (NAFA) and determining its organization, functions and responsibilities. NAFA is the supreme forestry development Authority in Rwanda. It shall be in charge of supervision, following up and ensuring that issues relating to forestry receive attention in all national development plans. In particular, the responsibilities of NAFA shall be the following:
 - (i) participating in designing the policies and strategies relating to forestry as well as promoting agroforestry and ensuring the implementation of such policies and strategies;
 - (ii) advising the Government on policies, strategies and legislation related to the forestry management as well as to the implementation of international conventions relating to the forestry and to the protection of natural resources such as land, water and forest biodiversity in forestry area;
 - (iii) supporting organs that are in charge of fighting soil erosion with the aim of safeguarding forestry and environment;

- (iv) preparing national programs in matters of reforestation, forestry management and helping Districts to prepare their own forestry management and processing and supervising the implementation of such programs;
- (v) advising, assisting and encouraging private sector stakeholders in participating in activities of reforestation, their effective management and to make them productive;
- (vi) making and updating the list of tree species to be planted in the country and their respective suitable areas according to the type of soil and the expected usage of such trees and provide advice and instructions with regard to the species of the trees or related products to be imported or exported;
- (vii) ensuring the management and exploitation of public forest resources;
- (viii) undertaking research, investigations, studies and other relevant activities with regard to the importance of forestry in the national economy and to the exploitation of forestry related products and disseminating the findings;
- (ix) disseminating research findings on technology of planting trees in land for cultivation and in pastures and in specific reforestation, efficient maintenance of the forests and utilization of such resource to income generation, rational utilisation of the forests and related products and in collecting all the data on forestry and related products;
- (x) preparing technical norms for activities related to reforestation, protection and rational utilisation of forests as well as adding value to forestry products;
- (xi) evaluating and closely monitoring development programs in order to adhere to the standards in the management and rational utilization of forests;
- (xii) developing relationship with other institutions, international organizations related to activities of forestry.
- 247. The ToR requested for testing the value addition of REMA in improving environmental financing. In so short time, REMA has won credibility and respect to be entrusted for the management of several projects, in Annex 7. The forestry related projects are implemented by NAFA. The following observations can be made about the projects for which REMA is the lead implementing agency.
 - (i) they help REMA deliver on its mandate for conservation of the environment (e.g the project for assessment of critical ecosystems, and the ozone layer project)
 - (ii) they also help REMA generate knowledge through research to inform environmental management choices e.g PEI
- 248. It can also be stated that the projects referred to in Annex 7 can add to the capacity of REMA. Owing to the on-going reform processes to fill public vacancies, REMA relies on project supported staff to implement the projects. When they end, REMA may lose the capacity built among them. From Table 24, only 56% of the established positions are filled. Failure to fill them has caused REMA to return government unspent wages and salaries.

Table 24: Actual versus planned staffing levels in REMA

Office	No. of established posts	No. of posts filled	% of posts
			filled
1. Director General office	5	4	80%
2. Directorate, Corporate Services + Audit	11	9	82%
3. Environmental regulation and pollution	7	5	71%
4. Research, environmental planning and	6	3	50%
development			
5. Environmental education and	7	2	29%
mainstreaming			
6. Climate change, and international	5	0	0%
obligations			
Total	41	23	56%

- 249. In terms of skills, there is fairly good mix provided for in the establishment among natural sciences, human and organization development, finance, accounting and audit, planning and environmental economics, procurement among others. As a young organization, REMA will need to periodically hold in-house team building workshops to allow each staff appreciate how she has to relate to the others for the smooth running of REMA. The REMA strategic plan under formulation now should be used to rally the team work.
- 250. Over time, REMA should continually re-assess itself with a view of determining whether it would require additional manpower or skills. For some of the unrepetitive tasks, REMA could continue outsourcing short-term consultants and resource persons to fill the gaps as the most cost-effective measure.
- 251. Based on Table 24, one is inclined to state that REMA's staffing with regard to its function for mainstreaming environment is low, at only 29%. Secondly, with increasing prominence Rwanda is giving to climate change, it becomes worrying that staffing for climate change is not as forthcoming. These are areas where the government and REMA should identify and recruit relevant manpower.
- 252. From public expenditure angle, the GoR has had to accept funding the institutions it establishes, including REMA (Table 25). According to Law No 16/2006, the patrimony of REMA should come from four sources, namely:
 - (i) the national budget
 - (ii) activities and services performed by REMA
 - (iii) funds provided by donors, and
 - (iv) subventions, donations, bequests and aid
- 253. The government will have to make very clear distinction between the capitalization of FONERWA vis-à-vis that of REMA, particularly form earmarked funds. For example, Organic Law 4/2005 states that the levy for EIA will be determined by the law establishing FONERWA. It did not state whether the revenue would be earmarked for REMA or FONERWA or neither.

Table 25: REMA's budget, 2006-2009/10

Year		2006	2007	2008	2009 (mini)	2009/10
REMA's	budget	350m	490m	565m	402m	926m
(Rwf))						

- 254. It is also observed in Table 14 of Chapter 5 that overall, the environment function absorbed 40% of the sector's budget in 2008. The forestry function absorbed only 11%. A further analysis of the 2009/2010 budget shows that: (i) REMA's recurrent budget is 48%, of the sector's recurrent budget while that of NAFA is only 17%.
- 255. It needs to be noted however, that government wants to form several boards, and to strengthen existing ones. That will come with additional competition for scarce resources. Since REMA has financial autonomy, it has the alternative to raise external resources to undertake projects relevant to its mandates. It only needs to bear in mind that the government's preference is for grants as opposed to loans.
- 256. Both REMA and NAFA will have to make their strategies for resource mobilization targeting government and external support. They do not have the privilege to raise and retain revenue in support of their own operations. Such revenue have ensured financial sustainability of similar SAGAs for environment in Africa.
- 257. In Kenya, the National Environment Management Authority (NEMA) has systematically raised internally generated funds from Ksh. 11 million in 2003/04 to Ksh. 107 million by 2006/07. What is more important is that the contribution of this revenue to the funding of NEMA has also grown. In 2003/04, it was only 5%, by 2006/07 it had shot to 27%.
- 258. In Ghana, funds from the National Environment Fund also finance partly the operation of Environmental Protection Agency (EPA). In 2002, the contribution of the NEF to EPA's operations accounted for 38%. In 2005, it had grown to 161%. (Table 26)

Table 26: Income sources of the Environment Protection Agency, Ghana 2002-2005

Billion Cedis	2002	2003	2004	2005
Consolidated	4.66	6.20	6.07	6.47
Fund				
NEF	1.78	5.03	8.73	10.38
Total	6.44	11.23	14.80	16.85
NEF as % of CF	38	81	144	161

Source: Neil Bird, Cletus Avoka [2007]

259. Even if REMA is allowed to operationalised FONERWA, the latter's revenue would fund environmental innovations and projects other than REMA's operations. FONERWA structure would be similar to the Environment Fund (FUNAB) of Mozambique. FUNAB is a public sector agency under MICOA's tutelage but with financial autonomy.

- 260. It was created in 2000 (Decree 39/2000) to promote through the provision of financial resources, public and private sector interventions in the environment domain. FUNAB funds small scale activities at the district or community level and related to spatial planning, environmental awareness campaigns and promotion of use of environmentally sustainable technologies. 41
- 261. The detailed recurrent budget for REMA and forestry (NAFA) started to be reflected in the budget 2009/2010. The budget does not make a distinction between the overhead costs and service delivery. Such a distinction was only found under CDF. It was found that its overhead costs are only 4% of the grants it gives all districts.
- 262. Nonetheless, from the budgets out of Rwf 926 million for REMA, employee costs will take 33% while goods and services will absorb 67%. Under forestry, out of its budget of Rwf 324 million, the employee costs will absorb 49%, goods and services 50% and transfers and subsidies 1%. Importantly, it is imperative that government completes the staffing of REMA and NAFA as a priority.
- 263. As mentioned earlier therefore, it will be strategic for REMA and NAFA to solicit for grants to carry out on-ground interventions that fall within their mandates, at least, in the short run.

⁴¹ Lídia Cabral and Dulcídio Francisco [2008]: Environmental Institutions, Public Expenditure and the Role of Development Partners

7. LESSONS DRAWN FROM PUBLIC EXPENDITURE FOR ENVIRONMENT

Rwanda's commitment to PEER is welcome and timely. Its effectiveness in guiding decisions for allocating and utilizing resources will be improved when it puts all the expenditure on budget. Development expenditure which is not harmonized with government functional areas cannot be fully reported upon.

264. In section 3 lessons from previous PEERs based on the World Bank study were given. In this section, the lessons given relate to this Rwanda's first, and baseline PEER. It also includes those from other countries, particularly on the monitoring tools for budget allocation and execution⁴². The lessons are described below:

• PEER as part of Public Financial Management

265. Rwanda is investing in public financial management, and putting aid on budget. Some of the aid is not yet reflected and reported in the government procurement system. Accordingly, for some foreseeable future, PEERs will have to report on progress being made so that it gives the reader the context in which to interpret the findings.

Ownership of the PEER process.

266. By making PERs in general integral to the Annual Joint Sector Reviews, the government of Rwanda is demonstrating ownership over the PER processes. However, because extensive PEERs are quite expensive, it will be important that both the ENR sector and MINECOFIN define: (i) the minimum reporting requirements of any sector PER, and (ii) the most important aspect of review by each sector annually. The more comprehensive PERs by sector, including PEER can be done, say once every five years.

• Multiple funding modalities

267. There are several funding modalities, including general budget support, sector budget support, projects, extra-budgeting funds and earmarked funds. Looking at the flows by these modalities alone cannot help one to identify environment revenue. One also has to look at activity work plans to establish whether the activities are of environmental nature. In Rwanda, and across all the budget agencies, it is the Annual Plans that list both the activities and to some extent, their budgets.

• Separating budgets for environment from budgets of natural resource exploitation or production

268. Making a clear distinction between the above two was not found easy. This is going to be a gradual process, through future PEERs, and as sectors improve mainstreaming and budgeting for environment.

⁴² See 3.3.13 of the TOR

• Most of the budget spent outside the ENR sector

- 269. Even if one uses all budget to ENR sector as a basis for inter-sectoral comparison, one establishes that most of both recurrent and development expenditure is taking place in other sectors-MININFRA, MINAGRI, MINEDUC, MINLOC, e.t.c. The main lesson therefore is that they should be the priority sectors to be targeted for mainstreaming environment, and budgeting for it within their resource envelopes.
 - Assessment of effectiveness of PEER is not possible yet.
- 270. There are no standard "unit" costs used in the sector. Further, there are no long term homogeneous outcomes comparable to those in health and education sectors. These complicated the assessment of effectiveness of expenditure.
 - Assessment of efficiency in expenditure can best be done on a case-by-case basis
- 271. Equally, assessing efficiency of public environment expenditure is not easy, but can be done on a case basis. For example, the average cost of making terracing in Rusizi (Kinyaga-Nkanka) was found by far higher than in four other sites where a similar activity was carried out under CDF funding.
 - Reporting of project expenditure follows donor requirements rather than functional or economic classification of expenditure
- 272. CEPEX has greatly improved reporting of projects' performance quarterly. In 2010, it was found to have gone a step further to start reporting on extra-budgeting funds. Because it reports according to the specific donor requirements, it complicates sorting out environmental expenditure by functional and economic classification.
 - SAGAs like REMA and NAFA are young but with more financing flexibility
- 273. The specific laws establishing the above SAGAs have defined their mandates and funding sources. The concern now is that their established posts are not filled. This weakens their capacity to deliver on their mandates and to fully absorb some of the expenditure e.g for salaries and wages.
 - District prioritise spending for environment but are not adequately funded
- 274. Environmental conservation projects ranked No. 4 out of all projects funded through CDF. Further, the execution rates by districts have improved over time. The government is reviewing the mandate of districts vis-à-vis the budget allocation to them with a view of ensuring that they are commensurately funded.

Funding through National Fund for Environment (FONERWA)

275. The government has not used FONERWA as a financing instrument because it is not yet formed. The processes are under way on how it should be operationalised. A working paper exists on the Operationalisation of FONERWA⁴³.

• Need to go beyond impressive execution rates

276. A common feature across ministries is their reporting on the improvement of execution rates, both of recurrent and development expenditure. CEPEX too reports for development expenditure. Impressive execution rates do not tell whether efficiency, effectiveness or value-for- money have been achieved. CEPEX admits that it is yet to institutionalize value-for-money audits. The Office of the Auditor General audited only 112 entities (31.5%) out of 355. This leaves a big backlog. So, effectiveness in the use of public funds will be improved over time as institutions improve their operational systems.

• Urgency to finalize institutional reforms

277. Ministries and agencies are not absorbing expenditure for wages and salaries as they should because of uncompleted institutional reforms. Reforms are equally taking place in decentralized structures. The concentration and motivation o staff can be affected when reforms take long to be completed or when they embrace many institutions at the same time.

Sectors are putting environment on budget, they can do more

278. It has been shown that MININFRA, MINAGRI, MINECOM and districts are spending on environment. They can do more by (i) overcoming staffing gaps, (ii) development their capacities in environmental mainstreaming and management and (iii) improving coordination within and across sectors.

· Lessons from PERs and JSRs in Rwanda

- 279. The culture and practice of JSRs has picked up in Rwanda⁴⁴ PERs have been conducted previously for agriculture and water and sanitation. The main attribute of these instruments is that they have been demand driven rather than externally driven. They are likely to stay.
- 280. In comparison with this PER for environment, the above PERs were relatively much easier to carry out because they were specific to the sectors reviewed. The unique challenge for this PER, is that much of the review has to take place outside the ENR sector itself among other sectors that makes it a very complicated review.

 ⁴³ Contact Director General, REMA for a copy
 44 See 3.3.12 of the ToRs

- 281. Another feature which has been observed among both JSRs for ENR sector, 2009, agriculture 2009, private sector, 2009 and the PERs for agriculture and water and sanitation is that they are weak in reporting on cross-sectoral linkages. Since MINECOFIN has a strategic objective to make use of PERs in resource allocation decisions, it should start to guide sectors on how to address the above gap.
- 282. Nonetheless, the main positive impact is that both JSRs and PERs are rallying instruments for sector and agencies, their development partners and civil society organizations.

Going beyond PER

- 283. In meantime, suffice it to recognize that there are other monitoring tools to complement PER. They are briefly described below.
 - Public Expenditure Tracking Surveys
- 284. Public Expenditure Tracking Surveys (PETS) are used to track the flow of funds through different layers of government up to the final service provider, e.g. a school, hospital, umudugudu e.t.c. The objective of PETS is to diagnose and understand problems in budget execution and service delivery, with a view towards improving the efficiency of government spending. In a PETS, the paper trail of financial transfers is followed, verifying whether the outturn is consistent with the initial allocation, whether records are consistent between different levels, and identifying the delays in financial transfers (or distribution of material). PETS can provide local communities with information about the level of resources actually allocated to particular services in their area and how much of those resources actually reach. Such an analysis can potentially reduce the leakages of public funds, increase the efficiency of public spending, and ultimately increase the quantity and quality of public services (See Box 9).

Box 9: Closing public expenditure leakage

One of the PETS to be done was in Uganda in 1991-95. A sample of government primary schools were surveyed in selected districts to examine how much they received of the non-salary expenditures (central government capitation grants) that were channeled to them through the local (district) government. The survey indicated that while the central government had almost fully released the entire amount of the capitation grant to the district governments, most schools had received none of the monies from the capitation grant. On average, schools received only 13 % of central government spending on the program, with the remainder being captured by local government officials and politicians. In addition, PETS found that most districts lacked reliable records of disbursements to individual schools. There was thus significant leakage of school funds, with poorer schools experiencing larger leakages (Ablo and Reinikka 1998; Reinikka and Svensson 2000).

Interestingly, when a follow-up PETS was done in 2001 with virtually the same sample of schools, it was observed that schools received 82% of the capitation grants. Thus, the leakage of funds had declined considerably since the earlier period. (Between the two surveys, the government had launched a major publicity campaign to inform schools and communities about the capitation grants that they were entitled to receive.) Moreover, the observed reduction in leakage was significantly larger for schools that had been exposed to the PETS publicity campaign. Thus, schools that were aware of the funds to which they were entitled were more likely to demand and obtain these funds (Reinikka and Svensson 2000).

Source: Anil B. Deolalikar [2008]

- Citizen Report Card and Community Score Cards
- 285. The above are some of the tools for potential use in Rwanda, listed in the Planning, Budgeting and MTEF Guidelines 2008. It was gathered that MINELOC plans to introduce them to measure the level of satisfaction with services provided by districts.
- 286. The Citizen Report Card (CRC) is a tool to (i) collect citizen feedback on public services from actual users of a service, (ii) assess the performance of individual service providers and/or compare performance across service providers and (iii) generate a database of feedback on services that is placed in the public domain.
- 287. The beneficiaries (as individuals) score the service providers using say marks from 1 to 100. On the other hand, the Community Score Card (CSC) approach gathers the level of satisfaction from a group of people rather than individuals.

8. CONCLUSION AND RECOMMENDATIONS

288. In this chapter, the key conclusions and recommendations are discussed by category and as a build up to the understanding of the Problem and Solution Matrix in Table 27.

• General Findings

289. At the moment, Rwanda is still involved in improving putting aid on budget, including investing in the integrated financial management system. This is an on-going process. The report has demonstrated how presently. The resources from diverse sources are channeled through several modalities to a wide range of beneficiaries. The implication is that for some time to come, PEER will require a lot of effort to discern environmental expenditure fro within and across the sectors. However, it was gratifying to find that the GoR through MINECOFIN has institutionalized PER in general as an integral part of Joint Sector Reviews. Accordingly. This should create an enabling environment to perfect the conducting of PER in general, and PEER in particular.

Recommendation:

290. MINECOFIN should provide guidelines annually to focus PER and PEERs as it leaves the more comprehensive ones to be carried out after 4-5 years.

• ENR Sector

291. The ENR Sector supervised by MINIRENA spent only 1% of development expenditure in 2008, and 0.7% of recurrent expenditure. Yet, it is the sector that has overall mandate to spearhead environmental management. Within the sector itself, conservation and protection of the environment absorbed 40% of expenditure, compared to only 4% to the integrated water resources management (Table 16). Rwanda's future growth will greatly be driven by the productivity and restoration of the ecosystems. This understanding should start to influence the manner the government structures the budget.

Recommendations:

- 292. MINIRENA should continue engaging other sectors to understand (i) environmental issues in their sectors, (ii) how each sector's activity impacts other sectors or is impacted upon by activities of other sectors, (iii) how to cost and budget for the identified environmental issues.
- 293. MINECOFIN should increase the resource allocation to ENR sector with the aim of improving productivity and restoration of ecosystems.

• Other sectors

- 294. Going by the size of development expenditure, the sectors which carries out a lot of activities are: (i) MININFRA (39%), MINAGRI (16%), MINEDUC (15%), MINISTR (19%), MINALOC (9%). MINIRENA only absorbed 1%. It is thus evident that much of the development expenditure is outside the ENR sector. The key message therefore is that the GoR should target the same sectors to; (i) mainstream environmental issues in their plans and (ii) to budget for addressing the prioritized issues.
- 295. Sectors are at varying scales of spending for environment. In some cases, the budgets are not reflected e.g costs of EIAs. The existing omissions are not deliberate but a reflection of a still weak understanding of environmental issues in the respective sectors. The various guidelines for environmental mainstreaming will not be effectively used until the understanding of environmental issues improves. In addition, sectors will require hands on training on how to actually use them.

Recommendation:

296. MINECOFIN and REMA should continue to train sectors in identifying sector specific environmental impacts, and budgeting for addressing them.

• Semi-autonomous government agencies

297. Both REMA and NAFA are young institutions with specific mandates. They are yet to be attracted resources under donor funded projects. NAFA inherited the National Forestry Fund. The National Forestry Fund for Environment recommended under law No.04/2005 is not yet operational but a concept paper has been prepared. The government is also to benefit form climate change funds. All these funds provide an opportunity to the government to broaden its financial resources. However, owing o the complementarily and overlap of activities that these funds can support, it will be rational for the government to harmonise them under one vulnerable fund to ensure cost-effectiveness in their use.

Recommendation:

298. Government should expedite the formulation and/or harmonization of National Fund for Environment under one national umbrella fund.

• Decentralised Entities

- 299. The government decentralized several activities to districts under Article 9 of Law No. 04/200, many of which could also address environmental issues. Presently. Districts are funded in several ways, including using their own generated revenue, CDF, earmarked grants through line ministries and stand alone projects. The government is in the process of costing the implications of implementing the decentralized functions by districts. The amount of environmental revenue raised by districts is not yet known.
- 300. Nonetheless, it was gratifying that increasingly, districts are putting some resources to deal with soil and water conservation, and environmental protection in general. Efforts to help them build

capacities for environmental management will thus go a long way in ensuring value-for-money in the use of scarce resources.

Recommendation:

- 301. MINELOC should (i) expedite the costing of implementing the decentralisation policy and (ii) develop a system to capture and report on environmental revenue raised by districts.
- 302. Based on its both macro-economic framework 2008-2012 and Public Investment Policy, the government is intending to target the productive sector in which the majority poor are engaged. It plans to increase public expenditure from 6.4% in 2006, to 7.4% in 2008 and 16.7% by EDRS target of 2010. It is up to the sectoral agencies in the productive sector to follow up that commitment. Most importantly, it is equally important that an integrated and holistic approach is adopted in the sector when using additional financing (See Annex 10).

Table 27: Problem and Solution Matrix

Pro	oblems, Gaps, & Constraints identified	Proposed Solutions	Lead Institution to address the problem	Timeline
Α.	Aggregate fiscal discipline			
1.	The true public expenditure for environment is marred by much of the donor funded development expenditure being off-budget.	Government should strive to bring all aid on budget	MINECOFIN	Immediately
2.	The 1% of public expenditure (both recurrent and development expenditure on budget) to ENR sector does not match the priority given to it under EDPRS	Government should allocate more resources to the sector	MINECOFIN	2010
3.	The macro-economic framework used by MINECOFIN does not guide sectors to take into account cross-sectoral impacts in budgeting.	Where data permits MINECOFIN should start to reflect cross-sectoral linkages and impacts, and on that basis propose necessary funding shifts.	MINECOFIN	2010
	Resource allocation and the use reflect ategic priorities			
	The Planning, budgeting and MTEF Guidelines 2008 are a good starting point to rally all sectors including ENR, to align the budgets to sectoral and EDRS priorities. But sectors use them differently, and inconsistently.	MINECOFIN should conduct inhouse training for staff responsible for sectoral planning and budgeting on how to use the Guidelines.	MINECOFIN	Annually prior to formulation of plans and budgets
2.	MINECOFIN has adopted results-based budgeting (i.e. to measure output/outcome effects) and the onus will be on sectors to demonstrate the prioritization of their budgets.	ENR sector should develop and strengthen an integrated environmental management system that can serve to measure output/outcome effects, and for use in the writing of SOEs	REMA	Immediately
3.	The budget allocated to REMA is so low to enable it deliver on its mandate, let alone engage other sectors to integrate environment in their plans.	MINECOFIN should increase REMA's budget to enable it implement its primary mandate of ensuring that all development plans integrate environment.	MINECOFIN	2009
4.	Government is forfeiting revenue by delaying to make a law establishing FONERWA, According to Organic Law No 04/2005 it this law that would give legal basis for charging for environmental services e.g EIA	REMA working with MINIRENA should expedite the processes for the establishment of FONERWA	REMA and MINIRENA	By mid 2010
5.	There are several cases where public expenditure is being incurred to support private enterprises. The practice should only be catalytic to avoid causing distortions in the economy.	Ministries should identify opportunities for transferring some of their expenditures to the private sector e.g. through PPPs, outsourcing, contract management and privatization	All ministries and SAGAs	By mid 2010
6.	There is very limited understanding by sectors on how their actions impact others and how they are also impacted upon from environmental perspective. That leads them to believe it should be REMA to address those impacts.	Sector-specific training programmes on identification of cross-sectoral environmental impacts and policy instruments to address them should be conducted.	Each sector	2010

Table 27: Problem and Solution Matrix cont'd

Pro	oblems, Gaps, & Constraints identified	Proposed Solutions	Lead Institution to address the problem	Timeline
7. C.	ENR sector or Resources allocated to districts do not match the responsibilities devolved. Programmes implemented economically,	MINELOC should expedite its costing for deepening decentralization policy so that districts are well funded	MINELOC	By mid of 2009
	ciently and Effectively			
1.	Most opportunities to put environment on budget lie outside ENR sector among other sectors. But some do not know those opportunities exist to be taken advantage of systematically and continuously, while others lack the capacities to identify them.	Sectors should be trained to assess the environmental impacts of activities pertinent to their mandates and be given easy to user friendly guidelines on how to identify them, particularly in the short run before capacities are built.	REMA	Immediately
2.	ENR Thematic Working Groups are structured to spearhead the sectoral issues, yet, most of the environmental issues and support needed fall outside the sector.	A Thematic Working Group for cross- sectoral engagement on technical environmental issues should also be formed as part of ENR-TWGs and be fully supported. In addition, intra-TWG coordination should be strengthened.	MINIRENA	Immediately
3.	Unless inter-sectoral coordination is supported and enhanced, many opportunities to put environment on budget will be missed.	A formal inter-sector coordination committee to harmonise expenditure across sectors for the crosscutting issue of environment should be formed.	MINECOFIN and REMA	Immediately
4.	The culture of using indicators to measure progress of performance in encouraging. However, for environmental issues, there are no output/outcome indictors to test for effectiveness in the use of public expenditure. Where they exist, they are not consistently collected, analysed and communicated	REMA should work with other sectors to select few operational indicators that measure output/outcome relationship and assign institution and resources to report on them.	REMA	Immediately
5.	The emphasis by government to use PER is new and very welcome. But PERs need to be complimented with other tools to test for economy, efficiency and effectiveness in the use of public funds.	MINECOFIN, working with OAG and CEPEX should institutionalize value-for-money audits, public expenditure tracking surveys, citizen report cards and community score cards.	MINECOFIN, OAG, CEPEX, MINALOC	2010

References

- 1. African Development Bank, African Development Fund [2008]: Rwanda Country Strategy Paper
- 2. Allen Schick [1999]: A Contemporary Approach to Public Expenditure Management
- 3. Andrew Lawson and Neil Bird [2008]: Environmental Funding; How To Increase The Effectiveness Of Public Expenditure In Developing Countries
- 4. Andrew Lawson And Seydou Bouaré [2008]: Budget Support, Aid Instruments And The Environment: The Country Context -Mali Country Case Study Final Report
- 5. Anil Markandya, Kirk Hamilton, And Ernesto Sanchez-Triana [2006]: Getting The Most For The Money —How Public Environmental Expenditure Reviews Can Help.
- 6. AuPhil Swanson and Leiv Lundethors [2003]: Public Environmental Expenditure Reviews (PEERS); Experience and Emerging Practice
- 7. CDF [2008]: Annual Report 2007.
- 8. DFID [2001]:Understanding And Reforming Public Expenditure Management Guidelines For DFID; Version 1
- 9. Dr. Ludovick Shirima: Intergovernmental Transfers Reform and Equalization Formula Design for the Republic of Rwanda.
- 10. Fund/Bank Staff in Collaboration with the Rwandan Authorities [2004]: Rwanda; Tracking Poverty-Reducing Spending: Second Assessment and Action Plan (AAP).
- 11. German Financial Cooperation with Rwanda: External Mid-Term Review of the Programme; "Support to the Implementation of Decentralisation"
- 12. Hakim Ben Hammouda Patrick N. Osakw [2006]: Financing Development in Africa: Trends, Issues and Challenges
- 13. IMF[2005]: El Salvador: Report on the Observance of Standards and Codes-Fiscal Transparency Module
- 14. International Monetary Fund [2007]: Manual On Fiscal Transparency
- 15. Lídia Cabral And Dulcídio Francisco [2008]: Environmental Institutions, Public Expenditure And The Role For Development Partners; Mozambique Case Study Final Report
- 16. Mailan Chiche [2008]: Putting Aid On Budget: A Case Study of Rwanda; A Study for the Collaborative Africa Budget Reform Initiative (CABRI) and the Strategic Partnership with Africa (SPA)
- 17. Mainstreaming Environment In Energy Strategies To Address Poverty In Rwanda
- 18. Martin Fowler, Claver Gasirabo, Sam Kanyarukiga, Augustin Mutijima [2007]: Rwanda Public Expenditure Review Agriculture
- 19. MINALOC [2008]: National Labour Intensive Public Works (HIMO/LIPW) Strategy
- 20. MINECOFIN [2006]: Development Assistance Database (DAD); Data Entry Form
- 21. MINECOFIN [2006]: Rwanda Aid Policy
- 22. MINECOFIN [2007]: Budget Framework Paper, 2008-2010
- 23. MINECOFIN [2008]: Central Public Investments And External Finance Bureau (CEPEX) Volume II; Development Projects Implementation Report Annual Report, 2007.
- 24. MINECOFIN [2008]: Districts Budget Execution Report, First Semester 2008
- 25. MINECOFIN [2009]: Report of the Joint Budget Support and Public Financial Management Review VIII
- 26. MINECOFIN [2009]: The Speech Of The Honourable Minister Of Finance And Economic Planning, James Musoni To The Parliament On The Law Determining The State Finances For The 2009/2010 Fiscal Year.
- 27. MINECOFIN: Budget Execution Reports 2004-2009
- 28. MINECOFIN: State Expenditure by Budget Agency by Economic Categories 2006-2012
- 29. MINECOFIN: State Expenditure by EDPRS Priorities 2009–2012; Mini-Budget 2009
- 30. MINECOFIN: State Expenditure by Sector and Sub-sector 2006 2012- Mini Budget 2009
- 31. MINECOFIN: State Expenditure per Budget Agency and Programme 2006-2012
- 32. MINECOFIN: State Expenditure per Budget Agency, Programme and Sub Programme 2006-2009
- 33. MINECOFIN: State Expenditure per Sector and Sub-sector 2006 2010
- 34. MINECOFIN: State Revenues-2006-2010

- 35. MINECOFIN[2008]: National Planning, Budgeting and MTEF Guidelines
- 36. Ministry of Finance [2006]: Public Expenditure Review Annual Consultative Meeting; Medium Term Expenditure Framework Cluster Wide Strategy
- 37. Ministry of Finance and Economic Planning, Malawi [2001]: Report of the Public Expenditure Review Workshop
- 38. Ministry Of Lands, Environment Forestry, Water And Mines [2006]: Public Expenditure Review: Water And Sanitation Sector
- 39. Ministry Of Local Government, Good Governance, Community Development And Social Affairs And Ministry Of Finance And Economic Planning [2006]: Fiscal And Financial Decentralization Policy
- 40. Neil Bird And Cletus Avoka [2007]:Budget Support, Aid Instruments And The Environment: The Country Context Ghana Country Case Study Final Report
- 41. Neil Bird and Njeru Kirira [2009]: Government Institutions, Public Expenditure and the Role of Development Partners: Meeting Kenya's Environmental Challenges.
- 42. Nina Boschmann [2008]: "Support to the Implementation of Decentralization"; Rwanda Common Development Fund
- 43. NISR et.al 2008: National Accounts, 2009
- 44. Official Gazette of the Republic of Rwanda: Rwanda Organic Law
- 45. Organic Law on State Finances and Property
- 46. REMA: Rwanda State of the Environment Report and Outlook
- 47. Republic of Rwanda: Vision 2020
- 48. Richard Allen and Dimitar Radev [2006]: Managing and Controlling Extrabudgetary Funds
- 49. Rob Tew [2009]: Aid Information in Rwanda
- 50. Sharma, Basu, Abekah and Joe, [2008]: Foreign Direct Investment and Economic Growth in Africa; Atlantic Economic Journal.
- 51. Stan Bartholomeeussen and David Twahira [2003]: Appraisal of the Decentralization process in Rwanda
- 52. WB, IFC, [2009]: Doing Business, 2010.
- 53. World Bank [1990]: World Development Report; Poverty. Washington DC
- 54. World Bank [1998]: Public Expenditure Management Handbook
- 55. World Bank, European Union [2005]: Country Financial Accountability Assessment: Rwanda
- 56. World Investment Report [2009]: Transitional Corporations, Agricultural Production and Development

Annex 1: Terms of Reference

Republic of Rwanda



TERMS OF REFERENCE

Request For Proposal (RFP_46709-2008-026)



Rwanda Environment Management Authority (REMA) Consultancy – Public Expenditure Review to Support PEI
Project Activities

1 OBJECTIVE

The current objective is to conduct a Public Expenditure Review (PER) which will help to evaluate the appropriateness in the use of funds in the environment sector.

The PER will provide a baseline for future trend analysis in budget allocation and execution and effectively monitor progress on the contribution of environment towards sustainable development, the achievement of MDG targets and vision 2020.

Trends and issues to be analysed will follow the major standard PER themes of; public expenditure trends, public expenditure composition, efficiency of public spending, poverty targeting of expenditure and public expenditure management.

2 BACKGROUND

The Government of Rwanda, with the support of UNDP and UNEP through Rwanda Poverty and Environment Initiative Project (PEI) aims to enhance the contribution of sound environmental management to poverty reduction, sustainable economic growth and achievement of the Millennium Development Goals. Led by the Rwanda Environment Management Authority (REMA), Ministry of Natural Resources (MINIRENA), the intended outcome of the Rwanda PEI Phase II is the integration of environment into national policy and district planning, policy and budget processes to implement the Economic Development and Poverty Reduction Strategy.

There is a number of different Economic Instruments which can be utilised by the Government to influence the understanding and behaviour towards the environment in Rwanda.

Those different Economic Instruments include the Public expenditure reviews (PERs), involve the analysis of allocation and management of public expenditures and may cover all government expenditure or focus on a few priority sectors such as agriculture, water, infrastructure, etc. Information gleaned from PERs is used to provide key guidance to strategic planning and budget preparation and to identify ways in which to improve the efficiency and effectiveness of resource allocations. Increasingly, PER processes are applied to expenditure management systems and institutions, since institutional framework, organizational capacity, and everyday expenditure management practice of government determines the allocation and management of public expenditures.

The Environment and Natural resources (ENR) sector is currently reviewing and revising the sector strategic plan as part of the ongoing national process of aligning sector priorities with the Economic Development and Poverty Reduction Strategy (EDPRS).

One of the key areas of this undertaking is the budgetary process that assures budget allocation is guided by key sector priorities identified through a participatory process that draws consensus from pertinent stakeholders. Budget allocation will, in a significant measure, be influenced by public expenditure review (PER) which provides an independent assessment of the adequacy, appropriateness and effectiveness of spending on the ENR sector as well as addressing ENR issues in other sectors such as Agriculture, Energy and industry. This will then inform any future revisions of sector plans, the preparation of the sector MTEF/budgets and the accounting and auditing functions within MINIRENA and REMA.

The analysis and recommendations are intended to demonstrate how GoR and donor resources are currently used, and to recommend how to improve resource utilization for the

ToR Page 1 of 7



TERMS OF REFERENCE

Request For Proposal (RFP_46709-2008-026)



Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

benefit of sustainable development. The exercise will serve as a tool to enable MINIRENA and REMA to improve prioritisation, efficiency and effectiveness of all public resources in support of the environment sector.

The review should be extensive and cover the period 2002-2007 i.e. PRSP 1 through to the EDPRS period. A key aspect of the PER is to analyse expenditure allocations, efficiency of budget execution, as well as the role played by different stakeholders in the budgeting processes. A particular issue to look at is the extent to which resources allocated to particular activities are utilised and accounted for, and whether the quality and timeliness of accountability and technical reporting have been or are in any way likely to constitute a constraining factor in the smooth execution of the budge.

Is in this context that UNDP/REMA through PEI project is looking for a qualified firm with a team of consultants (national and international) to undertake the activities outlined below

3 SCOPE OF WORK

- 3.1 The firm with a team of consultants (national and international) will report directly to the National Coordinator for PEI and will be supported by the PEI and UNDP during the assignment;
- 3.2 Responsibilities:
 - 3.2.1 The PER should cover public expenditure for the environment and natural resources sector on an annual basis for the period 2005-2009. For this period, the environment sector encompassed all spending by MINITERE/MINIRENA, all local administration expenditure at Province and District levels on environment related interventions, environment related spending under other ministries, and all donor projects under the environment sector. To the extent possible, the PER should include economic analysis of the impact of investments in promoting sustainable natural resources management overall contribution to national revenue;

The following broad areas should be explored in the PER:

ToR Page 2 of 7



TERMS OF REFERENCE



Request For Proposal (RFP_46709-2008-026)

Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

- 3.3 Analysis of Past Trends (2005-2009);
 - 3.3.1 Overview of allocations and trends in public expenditure from all sources (domestic revenue and external funds);
 - 3.3.2 Overview of other environment sources and expenditure trends where data available private sector, NGO, community, household
 - 3.3.3 Trends in priority given to the environment sector within overall Government of Rwanda budget and comments on intra-sectoral allocations within environment. Clarify definitions of sector and sub-sectors used in analysis;
 - 3.3.4 Analyse the effectiveness of expenditure allocation, disbursement and execution;
 - 3.3.5 Outline reasons for any differences between approved budgets vs actual disbursements and expenditures. Explain progress and implications in linkage to policy objectives;
 - 3.3.6 Analyse input mix (including recurrent vs capital, salary vs non-salary, balance between management overheads and service delivery expenditure);
 - 3.3.7 Evaluate performance of Rwanda in relation to regional and international benchmarks. Cross country comparison should be made wherever possible throughout the report. Identify lessons from international best practice:
 - 3.3.8 Provide thorough and clear commentary and analysis on moves taken towards decentralisation of funds;
 - 3.3.9 Analyse and comment on allocations at local government level. Evaluate current allocation mechanisms and formulas for de-centralised expenditures and provide suggestions on how this could be improved using available data;
 - 3.3.10 Provide a commentary on the progress and trends of government spending on environment:
 - 3.3.11 Provide a clear analysis of the role of newly established semi autonomous government agencies such as REMA and NAFA in the financing mechanisms as well as budget allocation and execution for ENR management. Evaluate efficiency of fund allocation with regard to the agencies and whether establishment have had a value added to the environment sector in terms of financing and execution;
 - 3.3.12 Develop an analysis on the level of involvement of sectors key to the environment such as those in the rural cluster in terms of how they have been monitoring budget allocation and execution for environmental activities and to what extent this has impacted on the sector objectives. What kind of monitoring tools have been used and what trends have been observed. Discuss lessons that have been gleaned from countries with similar challenges to inform PER process in Rwanda;

Organize and hold training on Public Expenditure Review (PER) for the government staff focusing on key sectors under PEI (MINALOC, MINAGRI, MINIRENA, MINICOM, MINECOFIN, MININFRA); highlighting the importance of PER to sustainable environment and natural resources management in Rwanda. Emphasis will be placed on evaluation of the government staff to conduct the PER exercise with clear guidance on developing a post training work plan to facilitate periodic reviews;

57. ToR Page 3 of 7



TERMS OF REFERENCE

U N

Request For Proposal (RFP_46709-2008-026)

Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

3.4 Forward-Looking Analysis and recommendations

- 3.4.1 Highlight areas for efficiency savings. Compare current and projected unit costs to other developing/Sub Saharan African countries. Identify possible areas for cost savings and improvement in efficiency with reference to best practice surveyed in other developing countries;
- 3.4.2 Are semi autonomous government agencies (SAGA) operating at a cost effective level? Compare management overhead costs of each SAGA compared to money that is spent on service delivery by each SAGA. Examine service delivery and management cost:
- 3.4.3 Identify implications of Government decentralisation plans for environment sector. Provide recommendations on pathway for future decentralisation of fund;
- 3.4.4 Identify key recommendations in improving public financial management and draft an action plan relating to the requirements for line ministries under the organic budget law to be introduced in Rwanda. This should be provided in the form of a matrix of issues and suggested responsibilities;

4 METHODOLOGY AND REPORTING FRAMEWORK

4.1 During the Assignment, the appropriate methodology to be used will be suggested by the team of Consultants and will include:

- 4.1.1 Adequate participation of key stakeholders in ministries and relevant public sector agencies, private sector especially service providers, and civil society representatives;
- 4.1.2 Adequate consultation with different GoR Ministries/Agencies (at least: MINIRENA, REMA, MINECOFIN, MINALOC) and decentralised levels (Provincial administration and Districts and other local authorities), donors and other development partners and end-user;
- 4.1.3 A significant element of quantitative analysis, evidence based findings and an emphasis on making clear recommendations based on thorough, objective analysis;
- 4.1.4 A significant element of quantitative analysis, evidence based findings and an emphasis on making clear recommendations based on thorough, objective analysis;
- 4.1.5 A significant element of quantitative analysis, evidence based findings and an emphasis on making clear recommendations based on thorough, objective analysis;
- 4.1.6 A clear definition of the environment sector is to be used in the analysis;
- 4.1.7 ALL relevant budget lines in and outside of MINIRENA and REMA, including district budgets, other relevant sector ministries and agencies who are involved in the preparation, execution, monitoring of or reporting on public expenditures related to environment and natural resources;
- 4.1.8 Visit of, public financial management and accountability institutions such as the Office of the Auditor General (OAG) and agencies such as the Institute of Statistics, Rwanda Revenue Authority (RRA) and CEPEX;
- 4.1.9 The PER should be undertaken with strong collaboration between the GoR and the consultant(s), and efforts should be made to ensure ownership of the conclusions and recommendations by the GoR. It is to be emphasised that capacity building for local

ToR Page 4 of 7



TERMS OF REFERENCE

U N D P

Request For Proposal (RFP_46709-2008-026)

Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

consultants and MINIRENA and REMA staff is a key element of the consultancy process and a contractual obligation;

5 DELIVERABLES

- 5.1 During the Assignment, the team of Consultants or firm will deliver:
 - 5.1.1 Work plan for the first three (3) days;
 - 5.1.2 An inception report after five (5) days;
- 5.1.3 Public Expenditure Report at the end of the assignment to include;

<u>Executive summary</u>: A part from a comprehensive consultancy report will constitute the major output of the consultancy, the International Consultant is requested to produce a clear and well written three to five page summary bringing out the main findings and recommendations from the report. This will guide the presentation for stakeholders workshop to validate the findings of the report;

<u>Conclusion and Recommendations</u>: Prioritised list of recommendations and responsibilities and provide recommended action plan;

<u>Annexes</u>: shall include; definitions, assumptions and data sources and provide Public Financial Management Action Plan;

- 5.1.3 Summary policy report including major findings and recommendations;
- 5.1.4 An user friendly training and operational manual including tools (checklists, formats, etc.) that will guide governmental staff and development partners to conduct PER targeting the budget allocation to ENR;
- 5.2 Data Source
- 5.2.1 Reference Materials available include:
 - a) EICV I and II:
 - b) PRSP Environment sector self evaluation 2006;
 - c) Interim PRSP and PRSP I documents;
 - d) Joint budget sector review reports;

6 QUALIFICATIONS

6.1 Candidates from the team must demonstrate the following qualifications and experience

ToR Page 5 of 7



TERMS OF REFERENCE

Request For Proposal (RFP_46709-2008-026)



Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

- 6.1.1 Masters degree in a relevant field such as Economics, Development Economics etc from a recognized University;
- 6.1.2 Minimum of five (5) years work experience in related fields such as Poverty Reduction Strategies, policies, Monitoring and Evaluation and strategic planning and more specifically, the suitable candidate should have significant experience in budgetary and PER processes and review and proven record in informing and influencing such processes:
- 6.1.3 Masters degree in a relevant field such as Economics, Development Economics etc from a recognized University;
- 6.1.4 Masters degree in a relevant field such as Economics, Development Economics etc from a recognized University;
- 6.1.5 Proven understanding of ongoing processes such as EDPRS and DDPs;
- 6.1.6 Minimum of three (3) years work experience in poverty focused data analysis and management of environmental issues;
- 6.1.7 Minimum of three (3) years work experience in institutional coordination and harmonisation;
- 6.1.8 Proven experience in environmental information gathering and field based environmental research for media coverage;
- 6.1.9 Fluency in English, preferably with functionality in French.

6.2 Competency and skills

- 6.2.1 Strong interpersonal skills with ability to work under pressure and to establish and maintain effective work relationships with people of different backgrounds;
- 6.2.2 Ability to take initiative and to work independently, as well as part of a team;
- 6.2.3 Proven capacity to organize and facilitate workshops and meetings;
- 6.2.4 Ready to travel extensively in rural areas and districts;
- 6.2.5 Excellent oral and written communication;
- 6.2.6 Excellent communication skills, reporting with ability to express ideas clearly, concisely and effectively, both orally and in writing;
- 6.2.7 Computer literacy in full Microsoft Office Package and web browser capability;

7 REMUNERATION AND OTHER CONSIDERATIONS

The successful consultant will start his/her assignment as soon as possible following the completion of the selection process.

- 7.1 Submissions will be accepted from firm or team of National and International Consultants only.
- 7.2 The Successful Result of this Process will be a Contract for Services.
- 7.2.1 Defining an overall period of two (2) months worked.
- 7.2.2 Payment for this consultancy will be done monthly upon receipt of satisfactory work completion.

8 SUBMISSIONS

ToR Page 6 of 7



TERMS OF REFERENCE



Request For Proposal (RFP_46709-2008-026)

Rwanda Environment Management Authority (REMA)

Consultancy – Public Expenditure Review to Support PEI Project Activities

- 8.1 Qualified team of consultants or firm that meet the above requirements are invited to submit:
- 8.1.1 Motivation letter expressing suitability for the assignment;
- 8.1.2 Curriculum Vitae with the required supporting documents;
- 8.1.3 List of previous work, contractual responsibility and successful completion of consultancy services related;
- 8.2 The Submissions should be made in <u>One envelope or attachments</u> (if submitted via email) indicating; DO NOT OPEN IN ADVANCE).
- 8.3 Please note that Submissions by E-mail WILL BE ACCEPTED (see details in the Expression of Interest).

9 SELECTION PROCESS

- 9.1 Submissions will be evaluated in consideration of the evaluation criteria as stated below:
- 9.1.1 Evaluation Criteria (Total of 100 points):
 - Masters degree in a relevant field such as Economics, Development Economics etc from a recognized University [Maximum 20 points];
 - b) Minimum of five (5) years work experience in related fields such as Poverty Reduction Strategies, policies, Monitoring and Evaluation and strategic planning and more specifically, the suitable candidate should have significant experience in budgetary and PER processes and review and proven record in informing and influencing such processes [Maximum 15 points];
 - c) Proven understanding of ongoing processes such as EDPRS and DDPs [15 points];
 - Minimum of three (3) years work experience in poverty focused data analysis and management of environmental issues [Maximum 15 points];
 - Minimum of three (3) years work experience in institutional coordination and harmonization [Maximum 15 points]:
 - Proven experience in environmental information gathering and field based environmental research for media coverage [Maximum 10 points];
 - g) Fluency in English or French with a working knowledge of the other [10 points];
- 9.1.2 In order to qualify for further consideration the Individual Consultant must accomplish a minimum score of 70 points;
- 9.1.3 Candidates who qualify for further consideration may be invited for a personal interview.
- 8.2 The Basis of Award will be to the Individual Consultant who qualifies in both -Evaluation by Desk Review and Personal Interview.
- 9.2 This Opportunity is open to male and female candidates. Applications from qualified female candidates are encouraged.

ToR Page 7 of 7

Annex 2: List of People Interviewed

	Name	Title	Organization	Email	Telephone
1	Dr. Rose Mukankomeje	Director General	Rwanda Environment	dgrema@hotmail.com	+250 25258011
			Management Authority		
2	Alex Mulisa	Technical Advisor	Rwanda Environment	amulisa2@gmail.com	+250 0788302107
			Management Authority		
3	Celestine Myambi	Project Manager	Rwanda Environment		+250 788592297
			Management Authority		
4	Patrick G. Muligo	Director, Administration	Rwanda Environment	muligo.godfrey@gmail.com	+250 08300254
		and Finance	Management Authority		+250 08803913
5	Viviane Masabo	Administration and	Rwanda Environment	masabovivy@yahoo.com	
		Finance Officer	Management Authority		
6	Elias Baingana	Director General, National	MINECOFIN	elias.baingana@minecofin.gov.rw	+250 57 22 72
		Budget	A TO		+250 08303373
7	Rurangirwa Jean de	Manager, SMARTGOV	MINECOFIN	jean.rurangirwa@minecofin.gov.rw	+250 0788505673
0	Dieu	D : (G : 1: (C	MDIEGOEDI		
8	Ronald Nkusi	Project Specialist for	MINECOFIN		
9	Wenceslas Niyibizi	Bilateral/UN Agencies Planner Local Gov.	MINALOC	wniyibizi@yahoo.com	+250-788-352744
9	Welicesias Mylbizi	Decentralization	MINALOC	willylbizi@yalloo.com	+230-700-332744
10	Evarist R. Kalimba	Planner Local Gov.	MINALOC	kalimba2020@yahoo.com	+250-788-516119
10	Lvarist K. Kammoa	Decentralization Cov.	WINVALOC	<u>kammoazozo@yanoo.com</u>	+230-760-310117
11	James Sano	Projects Implementation	MININFRA	jamsano@gmail.com	
12	Oreste Miniyangabo	Infrastructure and	Karongi District	Junious Simunosia	
	, , , , , , , , , , , , , , , , , , , ,	Environment Officer			
13	Fidele Ruzigandekwe	Executive Director	Rwanda Wildlife Agency	friziga@yahoo.fr	+250 08306910
	C			frizuga@rwandatourism.com	
14	Laetitia Nkunda	Director	Common Development Fund	laetinkunda@yahoo.fr	+250 08303315
15	Biryabarema Micheal	Director	Office de la geologie et de	mbiryabarema@yahoo.com	+250 252573632
	· 		mines du Rwanda (OGMR		
16	Theobald Nyatanyi	Director, Environmental	Rwanda Development Board	mashingatheo@yahoo.com	+250 788851461
	Mashinga	Compliance			
17	Habimana Claudien	IR Forestier	MINIRENA	habi_claudien@yahoo.fr	+250 08530036
		Directuer d'intervention			

Annex 2: List of People Interviewed con't

18	Janan Chowdhury	Technical Advisor,	MINECOFIN	jahan.chowdhury@minecofin.gov.r	+250 03318149
		Economic Planning		<u>w</u>	
19	Dephine Muteesi		MINICOM		
20	Aziza Benegusenga	Consultant	MINIRENA	azizabene@yahoo.fr	
21	Alexandra Lowe	Planning Department	MINAGRI	a.lowe.minigri@gmail.com	+250 783-852702
22	Kasire Cassien	Director, Infrastructure	Bugesera District	kasirecass@yahoo.fr	+250 788524805
23	Janvier Ntalindwa		Embassy of Sweden	janvier.ntalindwa@sida.se	+250 788304992
24	Ntabana Alphonse	DEM Technical Assistant	REMA		+250 788307206
25	John Musemakweri	Programme Specialist	UNDP	john.musemakweri@undp.org	+250 788821381
26	Duheuze Remy	Directeur de la	REMA		
		R'eltementation et du			
		controle de la pollution			

Annex 3: Classification of government functions in Rwanda

01 GENERAL PUBLIC SERVICE

- 011 Executive & Legislative Organs
- 012 Econ/Fin Management & Fiscal Affairs
- 013 External Affairs
- 014 Labour & Employment Affairs
- 016 General Intra-Governmental Transfers
- 018 General Public Services n.e.c

02 DEFENSE

- 021 Military Defense
- 023 Foreign Military Cooperation
- 024 Defense n.e.c

03 PUBLIC ORDER AND SAFETY

- 031 Police and Security Services
- 033 Law Courts and Gacaca
- 034 Prisons
- 035 Public Order and Safety n.e.c

04 EVIRONMETAL PROTECTION

- 041 Pollution abatement and Control
- 042 Biodiversity and Landscape Protection
- 043 Environmental Protection n.e.c

05 AGRICULTURE

- 051 Agricultural Development
- 052 Livestock and Fisheries
- 053 Forestry
- 054 Agriculture, Livestock and Forestry n.e.c

06 INDUSRTY AND COMMERCE

- 061 Mining and Quarrying
- 064 Trade and Commerce
- 066 Craft Industry
- 067 Industrie et Commerce n.e.c

07 FUEL AND ENERGY

075 Fuel and Energy n.e.c

08 TRANSPORT AND COMMUNICATION

- 081 Road Transport
- 087 Broadcasting and Publication
- 088 Transport and Communication n.e.c
- 089 Information and Communication Technology

09 LAND HOUSING AND COMMUNITY AMENITIES

- 091 Housing Development
- 092 Land and Community Development

10 WATER AND SANITATION

103 Water and Sanitation

11 YOUTH CULTURE AND SPORTS

- 111 Sports and Recreational Services
- 112 Art and Cultural Services
- 113 Youth and Other Community Services
- 114 Youth, Culture and Sports n.e.c

12 HEALTH

- 121 Primary Health Care
- 122 Secondary Health Care
- 123 Tertiary Health Care
- 124 Health n.e.c

13 EDUCATION

- 131 Pre-primary and Primary Education
- 132 Secondary Education
- 133 Non formal Education
- 134 Higher Education
- 135 Scientific and Technological Research
- 136 Education n.e.c

14 SOCIAL PROTECTION

- 142 Gender Protection
- 143 Assistance to Vulnerable Groups

Annex 4: Classification of functions of government (COFOG) according to IMF, 2001

<u>01</u> - General public services

- <u>01.1</u> Executive and legislative organs, financial and fiscal affairs, external affairs
- <u>01.2</u> Foreign economic aid
- 01.3 General services
- 01.4 Basic research
- <u>01.5</u> R&D General public services
- <u>01.6</u> General public services n.e.c.
- 01.7 Public debt transactions
- <u>01.8</u> Transfers of a general character between different levels of government

02 - Defense

- <u>02.1</u> Military defense
- <u>02.2</u> Civil defense
- <u>02.3</u> Foreign military aid
- 02.4 R&D Defense
- <u>02.5</u> Defense n.e.c.

03 - Public order and safety

- 03.1 Police services
- <u>03.2</u> Fire-protection services
- 03.3 Law courts
- 03.4 Prisons
- <u>03.5</u> R&D Public order and safety
- <u>03.6</u> Public order and safety n.e.c.

04 - Economic affairs

- <u>04.1</u> General economic, commercial and labour affairs
- 04.2 Agriculture, forestry, fishing and hunting
- <u>04.3</u> Fuel and energy

- <u>04.4</u> Mining, manufacturing and construction
- <u>04.5</u> Transport
- <u>04.6</u> Communication
- <u>04.7</u> Other industries
- <u>04.8</u> R&D Economic affairs
- <u>04.9</u> Economic affairs n.e.c.

<u>05</u> - Environmental protection

- <u>05.1</u> Waste management
- <u>05.2</u> Waste water management
- <u>05.3</u> Pollution abatement
- <u>05.4</u> Protection of biodiversity and landscape
- <u>05.5</u> R&D Environmental protection
- <u>05.6</u> Environmental protection n.e.c.

<u>06</u> - Housing and community amenities

- <u>06.1</u> Housing development
- <u>06.2</u> Community development
- <u>06.3</u> Water supply
- <u>06.4</u> Street lighting
- <u>06.5</u> R&D Housing and community amenities
- <u>06.6</u> Housing and community amenities n.e.c.

<u>07</u> - Health

- <u>07.1</u> Medical products, appliances and equipment
- <u>07.2</u> Outpatient services
- <u>07.3</u> Hospital services
- <u>07.4</u> Public health services
- <u>07.5</u> R&D Health
- <u>07.6</u> Health n.e.c.

<u>08</u> - Recreation, culture and religion

- <u>08.1</u> Recreational and sporting services
- <u>08.2</u> Cultural services
- <u>08.3</u> Broadcasting and publishing services
- <u>08.4</u> Religious and other community services
- <u>08.5</u> R&D Recreation, culture and religion
- <u>08.6</u> Recreation, culture and religion n.e.c.

09 - Education

- <u>09.1</u> Pre-primary and primary education
- <u>09.2</u> Secondary education
- <u>09.3</u> Post-secondary non-tertiary education
- <u>09.4</u> Tertiary education
- <u>09.5</u> Education not definable by level
- <u>09.6</u> Subsidiary services to education
- <u>09.7</u> R&D Education
- <u>09.8</u> Education n.e.c.

10 - Social protection

- <u>10.1</u> Sickness and disability
- <u>10.2</u> Old age
- 10.3 Survivors
- <u>10.4</u> Family and children
- <u>10.5</u> Unemployment
- <u>10.6</u> Housing
- <u>10.7</u> Social exclusion n.e.c.
- <u>10.8</u> R&D Social protection
- <u>10.9</u> Social protection n.e.c.

Annex 5: Proposed 2008 Budget Allocations by functional areas

Functional Area	Amount (Rwf)
01 General Public Service	146 111 468 860
011 Executive & Legislative Organs	11 602 566 904
012 Economic/ Fin Management & Fiscal Affairs	66 603 859 056
013 External Affairs	11 741 259 876
014 Labour & Employment Affairs	7 510 096 315
015 General Services Of Plannification And Statistics	0
016 General Intra-Governmental Transfers	37 552 636 705
018 General Public Services, N.E.C.	11 101 050 004
02 Defence	54 134 900 000
021 Military Defense	38 800 000 000
023 Foreign Military Cooperation	10 000 000 000
024 Defense Nec	5 334 900 000
03 Public Order And Safety	43 488 910 160
031 Police & Security Services	15 543 509 188
033 Law Courts And Gacaca	9 768 378 264
034 Prisons	13 592 199 913
035 Public Order & Safety, N.E.C.	4 584 822 795
04 Environmental Protection	7 224 972 030
041 Pollution Abatement And Control	91 500
042 Biodiversity And Landscape Protection	3 320 574 372
043 Environmental Protection N.E.C.	3 904 306 158
05 Agriculture	26 301 413 631
051 Agricultural Development	19 024 007 107
052 Livestock And Fisheries	3 998 073 709
053 Forestry	2 146 285 086
054 Agriculture, Livestock And Forestry, N.E.C.	1 133 047 729
06 Industry And Commerce	11 737 598 782
061 Mining And Quarrying	510 875 301
064 Trade And Commerce	10 487 529 757
066 Craft Industry	40 000 000
067 Industrie Et Commerce, N.E.C.	699,193,724
07 Fuel And Energy	42 447 433 504
072 Natural Gaz And Petroleum	0
073 Electricity	0
074 Renewable & Other Energy	0
075 Fuel And Energy N.E.C.	42 447 433 504
08 Transport And Communication	60 190 472 316
081 Road Transport	51 398 813 224
83 Air Transport	0
84 Water Transport	0
86 Communication	0
087 Broadcasting And Publishing	1 916 836 424
088 Transport & Communication, N.E.C.	1 963 648 344
089 Information And Communication Technology	4 911 174 324
09 Land Housing & Community Amenities	6 530 530 604
091 Housing Development	1 831 587 000
092 Land And Community Development	4 698 943 604
094 Land, Housing & Community Amenities, N.E.C.	0
077 Land, Housing & Community Amenities, IV.E.C.	0

Annex 5: Proposed 2008 Budget Allocations by functional areas cont'd

Functional Area	Amount (Rwf)
10 Water And Sanitation	25 132 431 589
101 Water	0
102 Waste Disposal And Management	0
103 Water And Sanitation, .N.E.C.	25 132 431 589
11 Youth Culture And Sports	5 813 306 516
111 Sports And Recreational Services	2 950 750 000
112 Art And Cultural Services	615 548 256
113 Youth And Other Community Services	527 275 392
114 Youth, Culture And Sports N.E.C.	1 719 732 868
12 Health	58 635 245 115
121 Primary Health Care	41 496 591 665
122 Secondary Health Care	8 407 034 000
123 Tertiary Health Care	6 938 302 705
124 Health, N.E.C.	1 793 316 745
13 Education	103 242 059 929
131 Pre-Primary And Primary Education	45 163 618 638
132 Secondary Education	27 714 760 265
133 Non Formal Education	550 000 000
134 Higher Education	26 696 220 245
135 Scientific & Technological Research	2 038 093 365
136 Education, N.E.C.	1 079 367 416
14 Social Protection	16 608 616 099
142 Gender Protection	593 825 530
143 Assistance To Vulnerable Groups	16 014 790 569
Total	607 599 359 135

Annex 6-9 (Separate Excel sheet)

Annex 10: Rationale to increase public expenditure for environment

The planned increase of expenditure to the productive sector, including the environment is a welcome strategy. Globally, evidence reveals that natural capital makes substantial contribution to the wealth of low income nations, including Rwanda (Figure 18). It therefore has important and strategic positions to contribute to human well-being and pro-poor economic growth. Secondly, natural resources in Rwanda play two basic roles in development. The first is their role as a basis for subsistence livelihood. The second is a source of development finance. In Rwanda, it is the natural resource base accounting for the highest foreign exchange. It is also accounting for 35% of GDP.

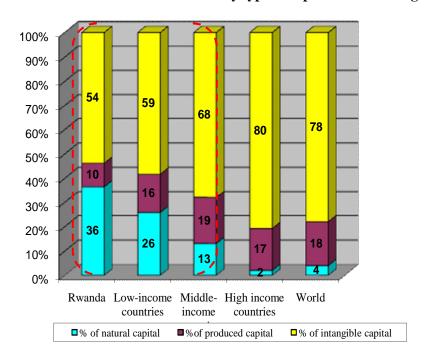


Figure 18: Distribution of National Wealth by type of capital and income group

Source: World Bank [2006]: Where is the wealth of nations? Measuring capital for the 21st century

Thirdly, environmental income at household level is very high in Rwanda although it has not been fully quantified. It accrues to households through direct use of the ecosystem services and goods (e.g. cutting fodder for livestock, using wood products in construction of homes, harvesting herbs, fish, non-timber products, materials for making handcrafts etc). It also comes from agro ecosystems, through small-holder farming. In some locations, it is derived from artisanal mining. In short, environmental income is part and parcel of the rural economy in Rwanda.

In order for the rural poor to even derive more environmental income than now, it must incur additional public expenditure on three governance issues, namely: resource tenure and property rights, decentralisation of natural resource management and improving the participation of the local communities in planning and management of the environment. The current government efforts to secure land titles to each household are an entry point for enhancing incentives and access to credit. All in all, Rwanda needs to invest in ENR in order to curb further degradation and to restore the functionality of ecosystem services.

The following case in Rugezi ecosystem is an illustrative example justifying investment in restoring ecosystem functionality. As figure 19 shows, there is cross-sectoral negative impacts being experienced which need to be curbed. Owing to the degradation of Rugezi wetland ecosystem and other factors, the Nturuka power generation dropped systematically between 2003 and 2007. However, there could also be other contributory factors like the impact of climate change that aside, based on the weighted average price per kWh, for three categories of consumers (households, industry and services), ELECTROGAZ lost US \$ 856,994 between 2003 and 2007.

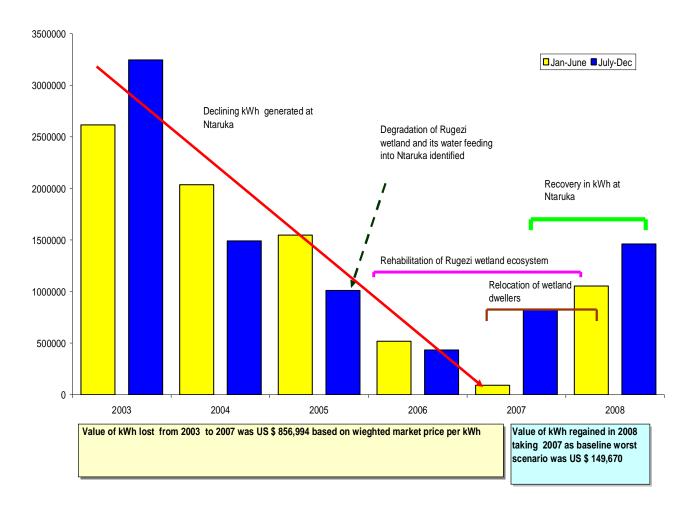


Figure 19: Relationship between rehabilitation of Rugezi Ecosystem, power generation and revenue

REMA started restoring the ecosystem after the decline in water levels became noticed in 2005. In 2008, there was recovery in kWh worth US \$ 149,670.

This case illustrates that the costs of ecosystem degradation is felt in other sectors- decline in water supply, decline in energy, etc. The analysis of cross-sectoral impacts should thus start to feature in JSRs.