THE STATE OF ENVIRONMENT
INFORMATION NETWORKING IN RWANDA
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Environmental Knowledge for Change

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THE STATE OF ENVIRONMENT

INFORMATION NETWORKING IN RWANDA

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PREFACE

People's dependence on natural resources justifies the need to monitor and evaluate the impact of human activities on the environment and the need to make decisions which ensure sustainable development. Environmental assessment and reporting are a key catalyst in the drive towards sustainable development.

During the preparation of the first Rwanda State of Environment and Outlook in 2009, it became evident that there is a lack of reliable core datasets and indicators on the environment. As such there is need for improved collaboration between institutions dealing with environmental information management. All institutions working in the natural resources sector will benefit from the creation of an infrastructure for sharing environmental data. An environmental information network that improves data access at all levels of society will in turn support the country's sustainable development objectives.

With the valuable support from the United Nations Environment Programme's Global Resource Information Database based in Arendal (UNEP/GRID Arendal), the Government of Rwanda undertook an assessment of the status of environmental information management in the country in 2009. This was necessitated by the need to understand the existing institutional and policy framework for environmental data management, data availability, and data use and sharing mechanisms.

This report contains the findings of the assessment and provides a number of recommendations for consideration in setting up the Rwanda Environment Information Network, including the establishment of working groups in order to ensure that the network is functional. The establishment of a national environmental resource centre is also very important to improve access to environmental information, as well as to facilitate informed and science-based decision-making.

I take this opportunity to thank UNEP/GRID Arendal for their valuable support. My deep appreciation goes to the Government of Rwanda through the Ministry of Environment and Lands for their leadership and also to other national institutions and individuals who contributed to the production of this report. It is my hope that this report will provide guidance towards the improvement of environmental information management in Rwanda.

Dr. Rose MUKANKOMEJE
Director General of REMA

SUMMARY

The need for information

Rwanda's economy and the livelihoods of the citizens are dependent on natural resources such as land, minerals, water, plants and animals. These natural resources are under increasing pressure from unsustainable use, resulting in environmental degradation (REMA 2009).

The circle of the interdependence between people and the environment is well known. The scale of future changes, their impact on Rwanda's development and the feedback from these changes in human behaviour cannot be forecast without adequate information. Scientists, regulators and the private sector need reliable observations and data if they are to contribute towards the sustainable development of Rwanda's economy.

At present, environmental data collection is largely sectoral with each institution focused on meeting specific needs. This sectoral approach to data management does not lend itself to contemporary decision-making. Specifically, the sustainable development approach adopted by Rwanda requires a more integrated methodology. Since environmental management is multidisciplinary by nature, cooperation across institutions and districts is necessary. Scientists working in different disciplines and at different levels need to access, comprehend and be able to use data collected and distributed by scientists from various disciplines.

In recognition of the above challenges, REMA wishes to establish the Rwanda Environment Information Network (REIN) to facilitate the capture, sharing and analysis of data in a way that is suited to multiple applications and integrated analysis. As a starting point to establishing the REIN, an assessment to survey the national capacity for information management was undertaken. This report contains the findings of this survey and provides a number of recommendations for consideration in setting up this network.

Policy and institutional framework

The existing institutional and policy framework informs the structure for environmental data management, data flows and reporting. The Constitution of Rwanda (2003) provides for the right to information and also entitles every citizen to a healthy and satisfying environment. The Organic Law No. 04/2005 on protection, conservation and preservation of the environment indicates that every person has the right to information on the state of the environment and the right to take part in the decision-making strategies aimed at protecting the environment. In addition, the Access to Information Bill (2009) obliges public officials to release information to the public.

Data availability

A number of institutions are involved in the management of environmental information in Rwanda. On the overall, there is a sectoral approach to data collection and management with specific institutions having the mandate for particular types of data. There are substantive data holdings in the different institutions. However, there are also data gaps. Many of these data gaps have been identified in key government development strategies, and measures are underway to address them. Access to data is generally unrestricted with most information being given out free of charge.

Who uses the data and what is it used for?

The data produced by the institutions is used by various stakeholders. These include national and local governments, the private sector, international agencies, NGOs, and research and academic institutions. The information is mainly used to support various management functions including monitoring compliance, enforcement of regulations, policy formulation, research and operations.

Networking

Networking appears to be well established among institutions working in the environment sector in Rwanda. The networks include steering groups or committees made up of local institutions, while some have membership from outside Rwanda. In October 2006 Rwanda began implementing a Spatial Data Infrastructure (SDI) initiative. Under this initiative, the Rwanda Metadata Portal was launched.

Despite evidence of networking, there are barriers to sharing of data, including differences in data collection methodologies, data structures and the predominant absence of data sharing policies or information strategies. The skills, expertise and numbers of employees vary greatly between organisations. The same applies to equipment. There is a need for capacity building and improvement in these areas.

RECOMMENDATIONS

1. **It is recommended that the Rwanda Environment Information Network (REIN)** be established to facilitate environmental data exchange, and to reduce duplication of effort, thus making more efficient use of financial resources.

2. **Institutional coordination and capacity building** for both staff and equipment are needed.

3. **In order to improve access to information,** an environmental resource centre needs to be established.

4. **The REIN should undertake activities that promote the use of environmental information in decision-making processes at all levels within the country.** These activities must be carried out within the framework of Rwanda's obligations towards meeting national development goals and targets. Each network member would continue to provide information support to national priorities

6. **An outreach strategy should be developed to enhance dissemination and use of generated information, as well as increase awareness of the REIN.** Positive perceptions amongst the public and policy makers would contribute to better understanding of the value of data and justify the need for networking.

7. **Policies and strategies to guide access to and management of environmental information must be developed.** This would strengthen the provisions for information management that already exist under the current legal and policy frameworks.

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