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Rwanda Open Data Policy

Draft V_1.0

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1. DEFINITIONS

Public means:
The Rwanda Open Data principles do not address what data should be public and open. Privacy, security, and other concerns may legally (and rightly) prevent data sets from being shared with the public. Rather, these principles specify the conditions public data should meet to be considered "open."

Data means:
Electronically stored information or recordings. Examples include documents, databases of contracts, transcripts of hearings, and audio/visual recordings of events.

While non-electronic information resources, such as physical artifacts, are not subject to the Open Government Data principles, it is always encouraged that such resources be made available electronically to the extent feasible.

Datasets

A dataset is an organized collection of data. The most basic representation of a dataset is data elements presented in tabular form. Each column represents a particular variable. Each row corresponds to a given value of that column's variable. A dataset may also present information in a variety of non-tabular formats, such as an extensible mark-up language (XML) file, a geospatial data file, or an image file, etc

Reviewable means:
A contact person must be designated to respond to people trying to use the data.
A contact person must be designated to respond to complaints about violations of the principles.
An administrative or judicial court must have the jurisdiction to review whether the agency has applied these principles appropriately.

Open Data
The Government of Rwanda will use the following definition of Open Data:

Open data is data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike.

Key elements of the definition are summarized below:

Availability and Access: the data must be available as a whole as and at no more than a reasonable reproduction cost, preferably by downloading over the internet. The data must also be available in a convenient and modifiable form.

Reuse and Redistribution: the data must be provided under terms that permit reuse and redistribution including the intermixing with other datasets.

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Universal Participation: everyone must be able to use, reuse and redistribute - there should be no discrimination against fields of endeavor or against persons or groups. For example, 'non-commercial' restrictions that would prevent 'commercial' use, or restrictions of use for certain purposes (e.g. only in education), are not allowed.

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2. BACKGROUNG AND INTRODUCTION

2.1 INTRODUCTION

Rwanda's commitment to transforming from an agrarian society and economy to one that is based on information and knowledge is enshrined in its Vision 2020. This vision is translated into action through its mid-term implementation framework, the EDPRS and the SMART Rwanda Master Plan 2014-2018. Information and Communication Technologies particularly Open Data, has got enormous potential to spur innovation and creativity, increase the proliferation of high skilled jobs, contribute to economic growth, and create a more accountable, efficient, responsive, and effective government.

Easy access to data allows individuals and organizations to develop new insights and innovations that can improve the lives of others and help to improve the flow of information. While Government of Rwanda agencies collect and share a wide range of data, they do not always curate and share these data in ways that are easily discoverable, useable, or understandable by the public.

This is a missed opportunity.

Rwandans are demanding to have access to information and services electronically, when and how they want. Increasingly, this is true of Government of Rwanda data as well. Innovative Rwandans the can use open data to generate insights, ideas, and services to create a better world for all.

In an information and knowledge-based economy that Rwanda is increasingly turning into, Open Data is a precious national resource and a strategic asset of the Government of Rwanda.

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2.2 CURRENT STATUS OF OPEN DATA

Between July and August 2013, the Ministry of Youth and ICT conducted an Open Data Readiness Assessment. Fifteen (15) different ministries/agencies across government, ICT firms, K-Lab developers, ICT chamber and media organizations were involved in this exercise.

The study concluded that the Government of Rwanda has important achievements that provide a strong foundation for building a high-impact Open Data initiative. Key national priorities like EDPRS II and the Command Center at PMO create favorable environment for Open Data, which fits with key objectives of economic transformation and transparency.

A small but dynamic developer community is ready to use Open Data and already has experience with co-creation events like *hackathons*

Many key, high-value datasets are already available to the public on request and no specific laws/ policies prevent their release as Open Data. For example, MIFOTRA releases the salaries of all public service servants. RRA gives customs data on demand. MINIRENA releases GIS

information on property ownership and transactions from its Land Administration Information database to real estate agents.

The National Institute of Statistics already operates an Open Data-like portal while the RDB is in the process of rolling out a National Open Data Portal here http://data.gov.rw.

2.3. SIGNIFICANCE OF THE OPEN DATA POLICY

Open Data only works when every agency follows the same policies, and when personally identifying information is protected from release. An official Open Data Policy will ensure that Government of Rwanda agencies follow consistent rules on data release, privacy safeguards, use of an "open" license and technical standards.

Given the *ad hoc* nature of data releases currently and absence of any license for use of government-held data, issuing an official Open Data Policy that sets consistent policies on the release of data, use of a standard "open data" license and compliance with technical standards is essential.

It is the only way to ensure that all agencies and levels of government follow the same rules and standards with respect to Open Data and data management.

Thus, among others, the Open Data policy will address such issues as:

1. Operating principles about what makes data "open"
2. Identification of license that government will use for its Open Data
3. Exclusion of personal, private information from Open Data (and requirements for anonymizing datasets before release)
4. Assigning roles and authorities to coordinating agency and other lead agencies
5. Acceptable formats for data/metadata
6. Requirements for a government-wide Open Data portal – www.data.gov.rw
7. Performance metrics for the Open Data initiative
8. Limiting government liability for reuse or errors by 3rd parties

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3. LEGAL & REGULATORY FRAMEWORK

Article 34 of Rwanda's Constitution provides that "Freedom of the press and freedom of information are recognized and guaranteed by the State."

The Access to Information Law (ATI Law) enacted in March 2013, states that every person has the right to access information held by government bodies and certain private bodies "whose activities are in connection with public interest, human rights and freedoms."

Article 6 states that: "In considering what constitutes the public interest, particular emphasis shall be put on the following:

- *to promote in public and private organs to which this Law applies the culture of informing the public about their activities;*
- *to ensure that the expenditure of public funds is subject to effective management and oversight;*
- *to promote founded public debate;*
- *to keep the public regularly and adequately informed about the existence of any danger to public health or safety or to the environment;*
- *to ensure that any public authority with regulatory mission properly discharges its functions.*

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Ministry websites typically include a copyright notice by that individual ministry, and not the Rwandan government as a whole. There is limited awareness of open licenses such as Creative Commons. The power to license government data is unclear. There is no central body responsible for this .At the moment, each agency applies its own requirements for sharing their data.

Very few government bodies charge for access to data in their possession. MINIRENA does charge for value-added services that include use of its data, for example the issuance of land registration titles or the creation of specialized maps on demand by a specific customer.

With respect to a right to privacy, there is no distinct privacy law. Rwanda's Constitution does address privacy (Article 22) and states:

"The private life, family, home or correspondence of a person shall not be subjected to arbitrary interference; his or her honor and good reputation shall be respected.

A person's home is inviolable. No search of or entry into a home may be carried out without the consent of the owner, except in circumstances and in accordance with procedures determined by law.

Confidentiality of correspondence and communication shall not be subject to waiver except in circumstances and in accordance with procedures determined by law".

Rwanda's Penal Code (Articles 286 and 287) creates criminal liability for the gathering and recording of personal information "likely to adversely affect the dignity or the privacy of people."

Law No. 18/2010 of 12/05/2010 relating to Electronic Messages, Electronic Signatures and Electronic Transactions (Article 76) recognizes the authority of any public institution to determine the mode of archiving, formatting, transmission and requirements for safe retention with respect to the acceptance, archiving and transfer of electronic documents. It also includes an obligation of confidentiality (Article 78) requiring that:

"Anybody who can access electronic messages, documents, letters, any other written document or other electronic devices has the obligation to keep them confidential, except persons authorized by this Law".

The handling of personal data within the context of electronic signatures and digital certificates is addressed in Article 23 of the law. It provides that the certification authority as well as accreditation and supervision authorities shall comply with applicable rules on data privacy protection. Specifically, it states:

"Certification authority issuing certificates shall collect personal data only directly from the data subject or with that data subject's explicit consent, and only to the extent necessary for issuing and maintaining the certificate. Data may not be collected or processed for any other purpose without explicit consent of the data subject"

Article 24 of the Law addresses information security within the context of the certification authority performing its services:

Any systems, procedures and human resources utilized by a certification authority are trustworthy based on the following factors:

1° Financial and human resources and other assets;
2° Quality of hardware and software systems;
3° Procedures for applications, issuance and retention of messages;

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4. STRATEGIC FRAMEWORK

4.1 VISION

The vision for this policy is to use Open Data to stimulate innovation, improve accountability of government and increase citizen participation within the context of EDPRS II.

4.2. OBJECTIVES

4.2.1. Creating High- skilled Jobs and Businesses

The Government of Rwanda is keen to use Open Data to catalyze innovation in the private sector, support the creation of new markets and increase high skilled jobs. Freely-available government data can be used in innovative ways to create useful tools and products that help people navigate modern life more easily.

4.2.2. Improving Transparency and Accountability of Government

Open Data will help increase transparency about what government is doing. Open data will increase awareness about how the country's' natural resources are managed, how public revenues are spent and how government business is transacted and managed. All of which promotes accountability and good governance, enhances public debate, and helps to combat corruption.

4.2.3. Promoting Citizen Participation

Providing access to government data will empower individuals, the media, civil society, and business to fuel better outcomes in public services such as health, education, public safety, environmental protection, and governance.

4.2.4. Monitoring EDPRS achievements

Open Data will help track and document progress in achieving EDPRS goals and sector targets. The Table below shows only a small sample of EDPRS2 areas where Open Data can enable their monitoring and evaluation

EDPRS2 Area / Targets	**Relevant Open Data Indicators**
Economic Transformation Goal: 11.5% average annual economic growth	1. Data from the National Account, including: 2. Data on indicators used to evaluate annual economic growth 3. Actual GDP growth vs EDPRS Target (per quarter, per annum) 4. Disaggregated data showing contribution of each sector to GDP
Outcome 1.1: Increase electricity generation capacity	1. Data on electricity production (per plant) including historical data

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to 563 MW leveraging large-scale private investment	2. Data on electricity distribution, including GIS data on location of electricity infrastructure 3. Data on investments, contract performance and production of private power production investors
Outcome 1.2: Accelerated access to electricity, water, roads and land to priority sectors and/or large investors	1. GIS data mapping: electricity grid and infrastructure, roads, water points and distribution infrastructure, cadastral data, etc 2. Census data (down to village level) 3. GIS data showing location of major industrial and production facilities of major industries and sectors 4. Sectoral level economic data (production, employment, etc)
Outcome 2.2: Transform logistics system	1. Customs hold time data 2. Cargo tracking data (available at Customs Department of RRA)
Outcome 2.3: Accelerate growth of exports Goal: 28% annual export growth	1. Export data disaggregated by sector (agriculture, tourism, ICT, etc) and products/services, including historical data
Outcome 3.2: Increase credit to private sector to 30% of GDP by 2018	2. Available credit to private sector disaggregated per sector 3. Lending by SACCOs and cooperatives by district and sector
Rural Development *Goal: reduce poverty from 44.9% to below 30% by 2018*	1. Poverty rates (national; by province/district) 2. Average household consumption (national; by district) 3. Data on how many people moved from extreme poverty to poverty and out of poverty 4. Performance of anti-poverty programs (e.g., VUP *Umurenge, Agasozi indatwa*)
Outcome 2.1: Increase productivity and sustainability of agriculture	1. Crop yields (disaggregated by crop and by district) 2. Costs of inputs 3. Data on distribution/usage of seeds, fertilizers, pesticides, etc by type and location
Outcome 4.1: Quality road network and rural feeder roads extended	1. GIS data on roads, planned extensions and current construction 2. Data on average travel times from villages to markets, hospitals, district offices, etc 3. Data on maintenance / repairs costs for roads 4. Data on contracts involving road

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	construction/maintenance/repair
Outcome 4.4: Connectivity by rural communities to relevant information	1. Internet connectivity / penetration rates (by district and below) for rural population 2. Volumes of data transfer by region (or lower levels) 3. Number of people who access Internet regularly (survey data)
Productivity and Youth Employment *Goal: at least 200,000 new job per year*	1. Employment (by sector) and unemployment data 2. Amount of financing provided to startups and SMEs (disaggregated by district and sector) 3. Participation in ICT training skills programs 4. Number of registered businesses 5. Productivity data on MSMEs

4.3. ACTIVITIES

The Open Data policy for Rwanda adopts an "ecosystem" approach to Open Data, meaning it will address the larger environment for Open Data – "supply" side issues like the policy/legal framework, data existing within government and infrastructure as well as "demand" side issues like citizen engagement and existing demand for government data among user communities (such as developers, media and government agencies).

The aim is to achieve a sustainable Open Data initiative that addresses both the supply and the reuse of Open Data, as well as other aspects such as skills development and innovation financing linked to Open Data. It also seeks to align with key national priorities of Rwanda.

Thus, the policy will address the following aspects;

4.3.1. Leadership for Open Data

The Government of Rwanda is committed to providing leadership for Open Data. The Prime Minister's Office will be responsible for keeping all government agencies accountable for its implementation. The PMO will ensure that Open Data plans turn into actions.

4.3.2. Legal and Regulatory framework

The Open Data Policy will help ensure that agencies follow consistent rules on data release, privacy safeguards, use of an "open" license and technical standards.

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By definition, Open Data must not include the release of personal data that can identify individuals. The Government will take appropriate steps—which may include a combination of laws, policies and safeguards—to ensure that personal, identifying data is not released as part of its Open Data initiative.

4.3.3. Data from Government

The Government of Rwanda recognizes that creating value from Open Data requires actual data from government. Thus, the government will issue a directive to all its departments to publicly avail all for-public-consumption data online and without charge.

The Government will ensure that Open Data is easy to find on one Open Data portal that catalogues all data opened by government. This data will be in machine-readable formats (formats directly usable by computers and software).

4.3.4. Demand for Data

The government understands that releasing machine-readable data is not enough. Demand for data and engagement with user communities are vital. The readiness of user communities and "infomediaries"—evidenced by their demand for data—are critical. Government will work to demonstrate the value for data-driven applications and promote reuse among developers.

4.3.5. Data User Communities

The Government is committed to widening the community of users of Open Data. *Infomediaries* such as journalists will be empowered and trained on Open Data through the Media High Council. The Ministry of Youth and ICT will facilitate organization of co-creation events like *hackathons* to promote app development which will reuse government-held data. The Government will intensify efforts aimed at putting in place the requisite infrastructure for an app economy in Rwanda.

4.3.6. Institutional preparedness

Open Data requires a whole-of-government effort that will involve every ministry and agency. The Prime Minister's Office will be responsible for coordinating implementation of Rwanda's Open Data initiative. The PMO possesses the requisite technical and project management capabilities as well as political weight necessary for implementation of an Open Data initiative.

4.3.7. Financing of Open Data

The Government will mobilize funding to cover training of officials on Open Data, fund the establishment of an Open Data portal and invest in reuse of its data (with co-creation events and applications development).

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4.3.8. Technology and Skills Infrastructure

The Government will provide the requisite infrastructure of technology and skills to enable the supply and reuse of Open Data. This will include among others, sufficient internet access and a supply of technical skills within and outside government to help enable and sustain an Open Data initiative.

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5. INSTITUTIONAL FRAMEWORK

A successful Open Data initiative for Rwanda requires that various key players are coordinated and work together. It requires periodic assessments of Open Data and how it contributes in achieving national development programs particularly the EDPRS.

5.1.1. Office of the Prime Minister

Given the cross-agency nature of the initiative, the responsibility for overall coordination of the Open Data initiative will be placed within a centralized, high-level office i.e. Prime Minister's office. The Prime Minister's office will;

1. Provide political oversight for the Open Data initiative
2. Cross-agency coordination of Open Data initiative.
3. Issuing of Open Data declarations and policies
4. Ensure compliance with Open Data policies
5. Secure political decisions to release high-profile, high-value datasets by ministries and agencies
6. Set and monitor performance metrics
7. Ensure alignment of laws/policies with Open Data
8. Ensure Open Data connects to major national initiatives (EDPRS2, Government Command Center, Citizen Charters) and their monitoring
9. Recruit / hire Open Data managers/team

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5.1.2. The National Open Data Steering Committee

The National Open Data Steering Committee will assist the Prime Minister's Office in inter-agency coordinating on Open Data issues. The body will oversee the following activities

1. Ensure cross-agency coordination of Open Data initiative.
2. Ensure that data-holding agencies and ministries are complying with Open Data policies
3. Follow up on political decisions to release high-profile, high-value datasets by ministries and agencies
4. Ensure Open Data key performance indicators are met

The National Open Data Steering committee will be composed of the following

1. Director of Cabinet in the President's Office
2. Director of Cabinet in the Prime Minister's Office
3. Permanent Secretary in the Ministry of Finance
4. Permanent Secretary in the Ministry of Youth and ICT
5. Chief Executive Officer, Rwanda Governance Board
6. Director General, National Institute of Statistics

5.1.3. The National Open Data Office

Management of an Open Data portal will require that the 4- (wo)man small team is dedicated on a full-time basis to the technical and coordinating work, including managing development of the platform, experience in cleaning and curating data, and closely coordinating with government bodies on their data releases.

The National Open Data Office will manage the data supply chain, manage portal development and operations, respond to data requests and ensure technical compliance with policies.

Specifically, the National Open Data Office shall perform the following activities

- Operational management of Open Data initiative
- Develop / manage budget for Open Data initiative
- Coordination/collection/curation of data for release
- Development and management of Open Data portal
- Managing data request process (request to release/response)
- Engage with data user communities to identify demand for data
- Organizing co-creation and reuse activities – including coordinating development of sector dashboards
- Organizing capacity-building related to Open Data
- Privacy safeguards / review
- Establishing privacy requirements and safeguards for Open Data
- Reviewing various existing privacy and confidentiality policies/laws to ensure they align with needs of Open Data
- Establish complaint mechanism for privacy violations

5.1.4. Open Data Focal Points

Each Ministry and key data-holding organizations of the Government of Rwanda will appoint an Open Data Focal Point to work closely with the National Open Data Office. The focal point will be responsible for among others;

- Identify data sets from their respective organizations and sectors to be shared on the National Open Data portal
- Organize, curate and share key data sets from the organizations and sectors they represent
- Ensure that their respective organizations are curating and availing data in open formats as per requirement set by the National Open Data Office
- Facilitating capacity-building related to Open Data
- Facilitating the work of the Open Data Office in their organization/sector

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6. IMPLEMENTATION PLAN

This implementation plan is prepared for the next two years and a half. It is meant to provide for the preparatory activities that will pave the way for roll out of a national Open Data initiative. The National Open Data Office will prepare a detailed four year plan that will be approved by the National Open Data Steering Committee.

The implementation Plan consists of activities under key dimensions of the "ecosystem" approach to Open Data as well as other activities that will be implemented in order to kick start an Open Data initiative for Rwanda.

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