THE FOURTH

NATIONAL STRATEGY FOR THE DEVELOPMENT OF STATISTICS

NSDS 4

July 2024 - June 2028

The fourth National Strategy for the Development of Statistics (NSDS4) was produced by the National Institute of Statistics of Rwanda (NISR).

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NSDS4 - Vision, Mission, Core Values

Vision

To be the l**eading** producer and supplier of official statistics in the **region**

Mission

Modernize and transform the NSS to efficiently and effectively respond to data demands while enhancing the use of official statistics

Core Values

- Integrity
- Collaboration
- Innovative
- Highest professional standards
- Providing values for money

Table of Contents

Tables and Figures

Foreword

Development success relies on high-quality data. Without accurate, timely, and accessible data, designing, monitoring, and evaluating policies is nearly impossible. Recognizing this, the Government of Rwanda (GoR) has made data and statistics a national priority, fostering an environment that ensures data-driven decision-making.

As Rwanda is implementing the Second National Strategy for Transformation (NST2) that builds on the success of NST1 and aligns with national, regional, and global development agendas, including the SDGs and AU Agenda 2063, the availability of reliable data remains essential. In this context, the GoR has committed to making data a national public good, essential for evidence-based policymaking. To continuously improve the National Statistical System, the GoR has supported the development and implementation of multiple rounds of the National Strategy for the Development of Statistics (NSDS). This internationally recognized framework enhances the production and use of official statistics, aligning Rwanda's statistical system with global best practices. This strategy consolidates past achievements while modernizing data collection, particularly from government institutions, to enhance evidence-based decision-making and development monitoring.

I commend the NISR and NSS members for producing NSDS4 and thank all stakeholders for their contributions. I urge continued support for its implementation, as the GoR remains committed to strengthening statistical capacity and ensuring data remains central to Rwanda's progress.

I encourage all stakeholders to embrace this strategy as a vital tool for national development.

Yusuf Murangwa
Minister of Finance and Economic Planning

Preface

I am honored to present the Fourth National Strategy for the Development of Statistics (NSDS4), a comprehensive blueprint designed to strengthen the National Statistical System (NSS) in producing and utilizing high-quality statistical information. This strategy plays a crucial role in supporting evidence-based policymaking and decision-making, essential for driving sustainable national transformation. NSDS4 will provide the necessary data to implement the Second National Strategy for Transformation (NST2), Sector Strategic Plans (SSPs), and District Development Plans (DDPs). It also aligns with broader regional and global development frameworks, including the EAC Vision 2050, the African Union Agenda 2063, and the Sustainable Development Goals (SDGs).

Developed by the National Institute of Statistics of Rwanda (NISR) following international guidelines and best practices, NSDS4 reflects the country's growing statistical capacity. It leverages an enabling environment—supported by robust government policies and political will—to enhance statistical production and development. A key focus is the transition from a traditional NSS to an emerging data ecosystem that integrates non-traditional data sources such as Big Data while improving the quality of administrative records.

NSDS4 is structured around four interconnected pillars. The first pillar emphasizes data production to support evidence-based policymaking. The second drives a national data revolution to enhance data uptake and impact. The third focuses on strengthening capacity across the NSS to foster the effective use of data. Lastly, the fourth pillar aims to create an enabling environment for sustainable statistical development.

The document is organized into four chapters. Chapter 1 explores the landscape of data demand and supply in the country, identifying key development agendas and the various categories of data users. Chapter 2 assesses the current state of the NSS, covering both NISR and sectoral statistical systems. Chapter 3 outlines the NSDS4 strategic framework, while Chapter 4 details implementation arrangements, monitoring and evaluation mechanisms, potential risks, and budget considerations.

By bridging gaps between data demand and supply, NSDS4 will enhance the production and dissemination of reliable, accurate, timely, and accessible statistical products. This strategy will reinforce the commitment of the government and development partners to evidence-based policymaking, ensuring data-driven decision-making and effective tracking of development progress. Through its implementation, NSDS4 will catalyze national and regional transformation, empowering stakeholders with the insights needed to drive sustainable growth.

Murenzi Ivan
Director General, NISR

Acknowledgement

We extend our sincere appreciation to the Government of Rwanda (GoR) for its remarkable effort in fostering a data-driven culture, promoting the uptake and use of data, and creating an enabling environment for the production, dissemination, and utilization of official statistics in the country. We also congratulate the Director General, staff, and management for their unwavering commitment to making the NISR a leading institution for official statistics in Rwanda.

The design of NSDS4 was a highly consultative, participatory, and inclusive process, with valuable contributions from all members of the National Statistical System (NSS). We deeply appreciate the engagement of all stakeholders who dedicated their time to provide input, ensuring that the NSDS is truly stakeholder-driven.

Notably, the NSDS4 design was undertaken entirely by the NISR team, reflecting the institution's strong capacity in various domains, including statistical planning. The overall guidance for this process was provided by Mr. Ivan Murenzi, Director General, and Mr. Ndakize Michel, Acting Deputy Director General. Mr. Nkusi David, Head of Corporate Services, and Mr. Museruka David, SPIU Coordinator, ensured oversight. The NISR technical team responsible for the NSDS4 groundwork included Mr. Nyirimanzi Jean Claude, Mrs. Kayitesi Claudette, Ms. Uwamahoro Sandrine, Mr. Mupende Emmanuel, Mrs. Ishimwe Caroline, Mr. Nzasingizimana Tharcisse and Mr. Nzabamwita Fidèle. We extend our heartfelt gratitude to each of them for their critical role in shaping the NSDS4.

We are also grateful to Development Partners for their continued support in advancing statistical development in Rwanda. In the case of NSDS4, we extend special thanks to Prof. Ben Kiregyera, an international statistics consultant, and Dr. Ludovick Leon in assisting the NISR with finalizing the document.

On behalf of the NISR Board of Directors and the NSDS Steering Committee, we once again express our gratitude to everyone who contributed to the development of NSDS4 and to the broader National Statistical System. We remain hopeful that support for statistics will continue to grow.

Mr Callist Kayigamba
Chairperson, NISR Board of Directors

Mr. Leonard Rugwabiza Minega
Chairperson, NSDS Steering Committee

Abbreviations

AI	Artificial Intelligence
APA	American Psychological Association
ASSS	Agriculture Sector Statistical System
ASYB	Annual Statistical Yearbook
AU	African Union
AUA63	African Union Agenda 2063
COVID-19	Corona Virus Disease of 2019
CPD	Continuing Professional Development
CPI	Consumer Price Index
CRVS	Civil Registration and Vital Statistics
DDG	Deputy Director General
DHS	Demographic and Health Survey
DIFD	The Department for International Development
DPs	Development Partners
DSMRP	Director of Statistical Methods, Research and Publications
EAC	East African Community
EACV50	EAC Vision 2050
EDCL	Energy Development Corporation Limited
EICV	Enquête Intégrale sur les Conditions de Vie des ménages or Integrated Household Living Conditions Survey
EMIS	Environment Management Information System
ENRSSS	Environment & Natural Resources Sector Statistical System
ENSS	Energy Sector Statistical System
ESSS	Education Sector Statistical System
EU	European Union
EUCL	Energy Utility Corporation Limited
FDI	Foreign Direct Investment
FONERWA	Rwanda Green Fund
FSSS	Financial Sector Statistical System
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GoR	Government of Rwanda
GTZ	German Technical Cooperation Agency
IBSS	Integrated Banking Supervision System
ICT	Information Communication Technology
IDSRS	Integrated Disease Surveillance and Response System
IECMIS	Integrated Electronic Case Management Information System
IIP	Industrial Production Index
ILPD	Institute of Legal Practice and Development
IMF	International Monetary Fund
IR	Inception Report
JRLO-SSS	Justice Reconciliation Law and Order Sector Statistical System
KPIs	Key Performance Indicators
LODA	The Local Administrative Entities Development Agency
M&E	Monitoring and Evaluation

MDA	Ministries, Departments Agencies
MIGEPROF	The Ministry of Gender and Family Promotion
MINAGRI	Ministry of Agriculture
MINAGRI	Ministry of Agriculture
MINIJUST	Ministry of Justice
MINUBUMWE	Ministry of National Unity & Civic Engagement
NAEB	National Agricultural Export Development Board
NBI	Nile Basin Initiative
NCDs	Non-Communicable Diseases
NISR	National Institute of Statistics of Rwanda
NPPA	Public Prosecution Authority
NSDS	National Strategy for the Development of Statistics
NSS	National Statistical System
NST	National Strategy for the Transformation
PARIS21	The Partnership in Statistics for Development in the 1st Century
PIRLS	The Progress in International Reading Literacy
PISA,	Programme for International Student Assessment
PPI	Producer Price Index
PSDYE-SSS	Private Sector Development and Youth Employment Sector Statistical System
RDB	Rwanda Development Board
REG	Rwanda Energy Group
REMA	Rwanda Environment Management Authority
RFA	Rwanda Forest Authority
RGB	Rwanda Governance Board (RGB)
RISA	National Public Prosecution Authority
RLFC	Rwanda Law Form Commission
RLMUA	Rwanda Land Management and Use Authority
RMA	Rwanda Meteorology Agency
RWB	Rwanda Water Resource Board
RWMB	Rwanda Water Management Board
RWRB	Rwanda Water Resources Board
SDGs	Sustainable Development Goals
SO	Strategic Objective
SPA	Service Provision Assessment
SPI	Statistical Performance Indicators
SPIU	Single Project Implementation Unit
TIMSS	The Trends in International Mathematics and Science Study
ToR	Terms of Reference
UK ONS	United Kingdom, Office for National Statistics
UN	United Nations
WASH-MIS	WASH Management Information System
WB	World Bank
WHO	World Health Organization

Executive summary

The adoption of national and international development agendas which are data intensive have led to an unprecedented increase in demand for data in terms of scope, quantity, quality, disaggregation, and timeliness. The agendas include Imihigo, District Development Strategies, Sector-specific strategies, the **National Strategy for Transformation (NST) and National Vision 2050 (at the national level);** the East African Community (EAC) Development Strategy and the EAC Vision 2050 (at the regional level); Africa Agenda 2063 on Africa We Want (at continental level) and the UN Sustainable Development Goals (at global level). National Statistical Systems (NSSs) in the developing world are urged to transform and modernize in order to meet the said demand

To be able to meet the demand for official statistics, the government created an enabling environment for the production and use of statistics. This included the promulgation of a Statistics Act or the Organic Law No. 1/20051, that created a National Statistical System (NSS) with the National Institute of Statistics of Rwanda (NISR) as the coordinator of the system and the custodian of official statistics on the country. Under the NSS, official statistics are produced from censuses and surveys which are carried out by the NISR and administrative data which are produced from operations of government ministries, departments, and agencies. In addition, the government has promoted the design and implementation of the National Strategy for the Development of Statistics (NSDS) as the best way to build statistical capacity across the NSS and meet the needs of data users efficiently.

Rwanda has designed and implemented three rounds of NSDS, and has started to implement NSDS4. The NSDS4 builds on the successes of and lessons learned from previous rounds of NSDS. The process of designing the NSDS4 was participatory and inclusive with stakeholders involved in the process and the validation of the NSDS4. The process involved an assessment of the state of the NSS and an evaluation of the NSDS3. The assessment showed, among other things that:

- The demand for data continues to increase, overstretching the existing capacities for data production and management.
- Overall, the country scores high, 73.4 on the World Bank Statistical Capacity Indicator (SPI) in 2023. The SPI is a proxy measure for statistical capacity of a country.
- Rwanda has good ranking on the Open Data Index. It ranked number 64 in the world and number 1 in Africa on the Open Data Index, which is a tool used to assess and track the state of open government data around the world.
- NISR has built ample capacity and is able to organize and successfully implement nation-wide surveys and censuses, has a new and modern facility for training statistical staff across government, has put in place various tools for coordinating the NSS.
- NISR is building capacity in Data Science, beginning to use alternative data sources such as Big Data and now hosts the UN Regional Hub for Big Data for Africa.
- While most of the data required for monitoring the implementation of the NST2 and SDGs come from MDAs, generally statistical capacities in MDAs are low as many of them do not even have a Statistics Department/Unit or a dedicated budget for statistical activities.

Lessons learned during the assessment include the following: many data users in the public and private sectors appreciate the benefits of using data for policy, planning and decision-making; stakeholder engagement helps to secure buy-in and support to statistics; statistical planning is critical to re-engineer the NSS towards improved performance; there is a need to design Sector -Specific Statistical Plans to improve administrative data in MDAs; statistical coordination needs further strengthening; there is a need for special focus on improving administrative data; the benefits of embracing the data revolution and leveraging ICT are immense for an NSS; partnerships are crucial for an NSS.

1 Law N° 45/2013 Of 16/06/2013 **'On the Organization of Statistical Activities in Rwanda'.** Kigali, Rwanda. GOR

There are emerging issues that informed the design of the NSDS4. These include new entrants into the data space that is leading to emergence of a broader data ecosystem of which the traditional NSS is part; the functions of NISR now go beyond those envisaged in the Statistics Act and may require review of the Act; the global movement towards transformation and modernization of NSSs to make them more agile and resilient; there are new opportunities presented by emerging technologies and expanding use of digital and mobile communications; a new international focus on improving administrative data; and the increasing importance of partnerships for development data.

The assessment led to the design of the **NSDS4 strategic framework** that included the following:

- **Vision**: To be the leading producer and supplier of official statistics in the region and is among the best globally.
- **Mission**: To modernize and transform the national statistical system to effectively and timely respond to data demands, enhancing the use of official statistics
- **Core values**: Integrity, collaboration, innovation, adhering to the highest professional standards, and providing values for money.

The NSDS4 is built on four mutually supportive pillars:

- 1: Produce data to support evidence-based policy formulation and decision-making,
- 2: Lead a national data revolution to scale data uptake and impact,
- 3: Build capability across the NSS to promote data uptake and use, and
- 4: Strengthen the enabling environment for sustainable statistical development.

Under these pillars, twelve strategic objectives are identified and under each objective, a number of projects and activities are identified. Statistical projects to be implemented in the period of 2024/25 – 2028/29 are classified into three groups: those to be implemented by NISR, those to be implemented by Sectors in collaboration with NISR and those to be implemented by Sectors only.

Implementation of NSDS4 will require NSS member institutions to work closely and in a coordinated way to ensure that stated outputs are delivered on time.. Successful implementation of NSDS4 will depend on the effective governance structures that promote coordination, professionalism, accountability, transparency, and ethical conduct throughout the statistical processes. This includes the involvement of the NSDS Steering Committee, the Board of Directors, SPIU, and the Sector and Technical Working Groups (STWG) that include the sector statistical system on their agenda. Furthermore, the implementation of NSDS4 will require the strategic engagement of stakeholders to ensure that it complies with legal and ethical requirements through joint planning and M&E. These will not be limited to issues addressing personal data, privacy protection, environmental sustainability, financial reporting, and statistical-specific regulations. The implementation will be done through annual action plans by NISR and sectors, through an institutional performance contract framework that will help to mainstream the NSDS4 programs, projects, and activities in their institutional and individual performance contracts (Imihigo). Likely risks in NSDS4 implementation, their probability of occurrence, and corresponding mitigation measures are considered. The budget for implementing the strategy is attached as Table 8. It covers activities to be implemented both at NISR and in sectors. To facilitate the monitoring and evaluation (M&E) of NSDS4 implementation, a logical framework was prepared and it is attached as Annex 20. The SPIU will be carrying out monitoring on a daily basis. The evaluation of the strategy will be undertaken at mid-term and at the end of the strategy implementation period.

Chapter 1:

Introduction

1.1. Data demand

The Government of Rwanda (GoR) subscribes to management-for-development-results that focuses on achievement of outcomes/impacts of development processes and initiatives. Accordingly, the GoR has formulated and implemented or is implementing a number of development agendas that include the following:

- National Vision 2050 which is the country's long-term development plan aimed at transforming Rwanda into an upper-middle-income country by 2035 and a high-income country by 2050. It builds on the successes of Vision 2020 and aligns with global frameworks like the United Nations' Sustainable Development Goals (SDGs) and the African Union's Agenda 2063. Vision 2050 ;
- National Strategy for Transformation (NST), which is a medium-term strategic plan for implementation of the national vision. The NST1 covered the period from 2017 to 2024 and served as the bridge between National Vision 2020 and Vision 2050. NST2 (July 2024 –June 2029) builds on the achievements of NST1 and was primarily designed to improve incomes and well-being of citizens and it rests on four pillars, namely:
  - Economic transformation
  - Social transformation
  - Transformational governance
  - Cross-cutting areas
- NST2 priorities include the following:
  - enhancing climate resilience and sustainable development
  - developing domestic manufacturing industries to boost exports and reduce the trade deficit
  - creating decent and productive jobs
  - improving the quality and market relevance of education
  - enhancing nutrition and early childhood development to reduce stunting
  - improving the quality of service delivery and enhancing citizen participation
- NST is implemented through:
  - Sector-specific strategies aligned with national goals.
  - District Development Strategies (DDSs) for localized action.
  - Imihigo: Annual government performance contracts to ensure accountability.

The above frameworks are aligned to the regional, continental and international development agendas, namely: the EAC Vision 2050 (EACV50) and the East African Community Development Strategy (current strategy covers the period 2021/22-2025/6) that aims at regional integration and development; the Africa Agenda 2063 on "The Africa We Want" - a blueprint and master plan for transforming Africa into the global powerhouse of the future; and the 2030 Agenda for Sustainable Development which was adopted in 2015 to achieve 17 Sustainable Development Goals (SDGs) by 2030. The agenda 2030 is a universal call to action to end world poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

The above development frameworks and agendas require a lot of data and statistics to identify and illuminate issues that need policy intervention, inform the process of governance (e.g. supporting policy development, resource allocation, and accountability), support monitoring and reporting on development progress, and facilitate better decision-making, and hence more effective use of valuable resources for development and poverty reduction. Statistics also help to make needed course corrections in implementation of development agendas. In addition to the GoR [ministries, departments and agencies (MDAs) and districts], data and statistics are required by a wide range of other data users and stakeholders, principally: the private sector, the civil society sector, academia, analysts, the media, research and training institutions, development partners and the public for different purposes (see table 1 below). Data and statistics are the lifeblood of decision-making and the raw material for accountability. Without high-quality data providing the right information on the right things at the right time; designing, monitoring and evaluating effective policies becomes almost impossible2. Indeed, availability of quality data and statistics has been recognized as one of the success factors for development agendas.

2 A World that Counts: www.undatarevolution.org/report/

Table 1: Main data users and uses

Main data users	Main uses of data
Government ministries, departments and agencies (MDAs)	Use data for policy development, decision-making, planning, administration, monitoring, governance, and accountability
Politicians	These use data, especially for debate, assessment of development needs, budget discussions and approval, etc.
Economic agents (industrialists, farmers, service industries, etc.)	These use data to assess business opportunities, risks, and prospects; planning, decision-making, monitoring, evaluation; reporting on business activities
Civil society organizations (e.g. Non-governmental organizations)	Use population and other data to plan, implement, monitor, and evaluate their activities. They also use data for more informed policy-making, lobbying, holding governments to account, and reporting back to their headquarters or funders
Research and training organizations (e.g. Universities)	Use data to undertake research, conduct socio-economic- analyses, and for teaching purposes.
The media	Use data to inform, analyze and report on various development issues and events, and to call organizations and governments to account.
International organizations and agencies	Use data to assess requirements for assistance and/or participation in development activities, evaluate the effectiveness of the assistance and to provide a global picture of development
The wider public	Use data to make individual decisions and assess the performance of government and for a variety of other purposes including public debate.

NSDS4 in Rwanda will be implemented in the period between July 2024 to June 2029. It builds on the three rounds of the NSDSs. Specifically, it is designed after the third NSDS (NSDS3) that was implemented from July 2019 to June 2024. NSDS4 design begun early March of 2023.

The evaluation conducted in September 2023 revealed that NSDS3 was very successful since it attained most of its established goals and objectives. The evaluation identified both lessons learnt, and challenges faced during its execution, and used them to propose innovative strategies and way forward to the design of NSDS4. Thus, the design of NSDS4 consolidated the gains attained from implementing the three precursor generations of NSDSs and ensures that findings from this are used to improve the current strategy document. In this regard the context focused on national, regional, continental, and global levels.

At the ***national level***, the NSDS4 is designed as a tool to facilitate measuring progress towards attaining the RV50. The RV50 is implemented through short, medium and long-term strategies to allow for simplified approach to track progress towards achieving its targets. These include the just expired NST1 and the forthcoming NST2 that is under drafting process. Thus, both the NST1 and NST2 are the sub-strategies of the RV50 that articulates the long-term strategic direction for **"the Rwanda we want"** and the enabling pathways to achieve this ambition. In this context, NSDS4 is designed in a way that considers data demands for regular reviews of RV50, NST2, Sectors Strategic Plans (SSP), the Districts Development Strategies (DDS) and other policies to be formulated in the next five yearsin the blueprint for development policy to all partner countries.

The above cooperation and collaborations link well with the NSDS4's design priorities that are intertwined to the **continental level** by adopting the development goals aspired by the **AU** as detailed in the **AUA63.**

On the **global stage** NSDS4 carefully joined the ranks of other countries in the world to ensure better life for all Rwandese by adopting **the 17 United Nations (UN) SDGs.** These SDGs have been adopted by the UN since 2015 as The 17 SDGs are integrated, they recognize that action in one area will affect outcomes in others, and that development must balance **social, economic, and environmental sustainability**.

The GoR is committed **to prioritize progress** for those who are furthest behind. As such the NSDS4 is designed to provide users with updated, timely and good quality indicators that facilitate the M&E of the national, regional, continental, and global development policies.

A culture of data demand

By integrating a number of strategies, Rwanda has created a culture of data demand across government, business, academia, and civil society. Rwanda has been proactive in creating data demand through a mix of policies, capacity-building initiatives, digital transformation efforts, and stakeholder engagement. It has created a culture of data demand across government, business, academia, and civil society through a number of strategies including the following:

a) Government policies and strategies

- National Strategy for Transformation (NST) emphasizes data-driven decision-making.
- The Smart Rwanda Master Plan promotes digital transformation and the use of data in governance and service delivery.
- The Data Revolution Policy (2017) aims to make data accessible, usable, and impactful across sectors.

b) Open data and digital platforms

- The NISR provides data open-access through the Rwanda Open Data Portal, increasing transparency and encouraging data usage.
- The Irembo e-Government Platform digitizes government services, generating and utilizing real-time data.
- The Rwanda Integrated Health Management Information System (HMIS) supports evidence-based healthcare decisions

c) Capacity building and awareness programs

- The Rwanda Academy of ICT and partnerships with universities help train professionals in data analytics.
- Regular data literacy workshops for policymakers, businesses, and journalists enhance data interpretation and demand.
- Civil society organizations, such as the Rwanda Civil Society Platform, advocate for data use in development programs.

d) Private sector and innovation ecosystem

- The Rwanda Innovation Fund supports startups in data analytics, AI, and digital solutions.
- The Kigali Innovation City and tech incubators, like Norrsken Kigali, promote data-driven business solutions.
- The Financial Sector Development Strategy encourages financial institutions to use data for decision-making.

e) Use of data in governance and decision-making

- Government agencies and local authorities use performance-based contracts (Imihigo), which rely on data to track development progress.
- The Rwanda Revenue Authority (RRA) uses tax data analytics for revenue mobilization.
- The Rwanda Biomedical Centre (RBC) leverages data for health surveillance and epidemic response (e.g., COVID-19).

f) Citizen engagement and data-driven journalism

- Media houses are encouraged to use data for investigative journalism.
- Community-based data collection initiatives (e.g., Citizen Report Cards) help generate demand for better public services.

g) International partnerships and funding

- Collaborations with international organizations (World Bank, UNDP, and African Development Bank, etc.) help strengthen data ecosystems.
- The African Institute for Mathematical Sciences (AIMS Rwanda) supports advanced data science education

1.2 Data supply

1.2.1 GoR commitment to statistics

The GoR recognizes the importance of statistics as a powerful resource for driving change and catalyzing action in development

processes. GoR is also alive to her responsibility to ensure availability of quality official data and statistics as a "public good"; promote a data use culture; and encourage data use especially for policy, planning, monitoring and evaluation, and reporting on development progress. Quality statistics are statistics that are relevant, accurate, timely, sufficiently disaggregated, gender-responsive, accessible, and easy to use. Accordingly, the GoR has over the years taken concrete steps to develop official statistics for the country and promote their use for various purposes. These steps include instituting an enabling legal framework for establishment and strengthening of the National Statistical System (NSS), establishment of the National Institute of Statistics of Rwanda (NISR) as an autonomous government agency responsible for official statistics and coordination of the NSS and related matters including the design and implementation of successive National Strategies for the Development of Statistics (NSDS). The GoR has also adopted a Data Revolution Policy (DRP) that provides transformative actions to support the traditional sources of statistical information comprising surveys and censuses (GoR, 2017). These actions encompass the development and use of administrative records, Big Data Analytics (BDA), Artificial Intelligence (AI) and other Data Science Techniques (DST) to produce timely and good quality statistical information in addition to what is produced by surveys and censuses. The DRP leverages up-to-date developments of Information and Communication Technologies (ICT) to strengthen the data generation, data management and data analysis for official statistics, as well as data dissemination that contribute to evidence-based policy formulation and decision making. One other related policy is Rwanda's National Artificial Intelligence Policy that serves as a roadmap to enable Rwanda to harness the benefits of AI and mitigate its risks.

It is against the above backdrop that the Fourth National Strategy for the Development of Statistics (NSDS4) for Rwanda has been designed.

1.2.2 National Statistical System (NSS)

a) NSS defined

Data required for meeting the aforementioned information requirements are mainly provided by the NSS is composed of the following: [a] The NISR. [b] The various state institutions [GoR ministries, departments and agencies (MDAs)] that provide statistical information. Such statistical data constitutes the official statistics. [c] Organs which use statistical information. [d] Organs that provide statistical information, including public and private institutions, non-governmental organizations, households, and the population. [e] Institutions of research and training including institutions of higher learning.

The NSS is underpinned by two key legislative instruments that ensure that statistical activities in Rwanda are conducted systematically, promoting the production of reliable data essential for the country's development planning and policy formulation. The instruments are:

- **Law No. 45/2013 of 16/06/2013**: This law determines the organization of statistical activities in Rwanda. It designates the National Institute of Statistics of Rwanda (NISR) as the coordinator of the NSS and outlines the responsibilities of various stakeholders involved in statistical data collection, analysis, and dissemination.
- **Law No. 53 bis/2013 of 28/06/2013**: This law establishes the NISR, detailing its mission, organization, and functioning. The NISR is tasked with leading efforts to collect, archive, analyze, and disseminate reliable data to support evidence-based decision-making in Rwanda.

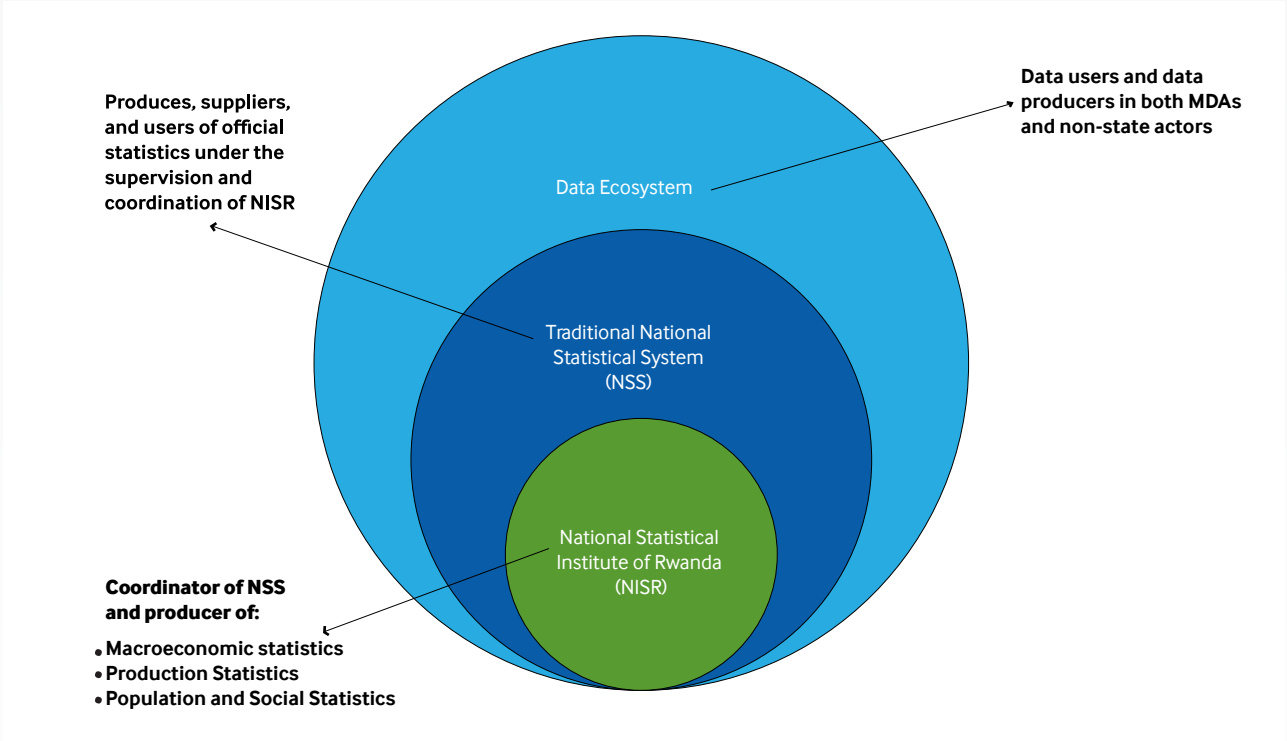
The NISR was created in October 2005 as an independent institution, evolving from the former Department of Statistics in the Ministry of Finance and Economic Planning and the National Service of Census. Its mission is to enhance the capacity for evidence-based decision-making by coordinating national efforts in data collection and management, ensuring the production of high-quality, timely, and accessible statistics necessary for policy making and decision-making.

b) The emerging data ecosystem

The unprecedented and expanding data needs to meet the requirements of the results agendas mentioned above and other data needs has placed a lot of pressure on the NSS as defined above. However, as the NSS faces several challenges in meeting the said data needs, new players are coming into the data space. Many of them are not even statisticians but have tools and solutions such as data science tools, while some others are basically "data enthusiasts" trying to fill data gaps.

These new players can help the NSS improve official statistics in the country. They, therefore, need to be identified, embraced, coordinated and regulated to create an enabling legal environment conducive to a data-driven economy and country. This requires extending the frontiers of the traditional NSS defined above to an emerging data ecosystem of which the NSS will be part. The Cape Town Global Action Plan for Sustainable Development Data [CTGAP] emphasizes the role of National Statistical Institutes [NSIs] like the NISR as the coordinators of the emerging data ecosystem. National Statistics Institutes are being urged to become data stewards for the emerging data ecosystems. A data steward is an individual or a team responsible for managing and ensuring the quality, security, and usability of an organization's data assets. This role is crucial in the context of increasingly complex data landscapes (new data ecosystems) and the need for organizations to derive valuable insights from their data. All this and more calls for the review and updating of the national statistical legislation. The following figure presents the NSS vis-a-vis the emerging data ecosystem.

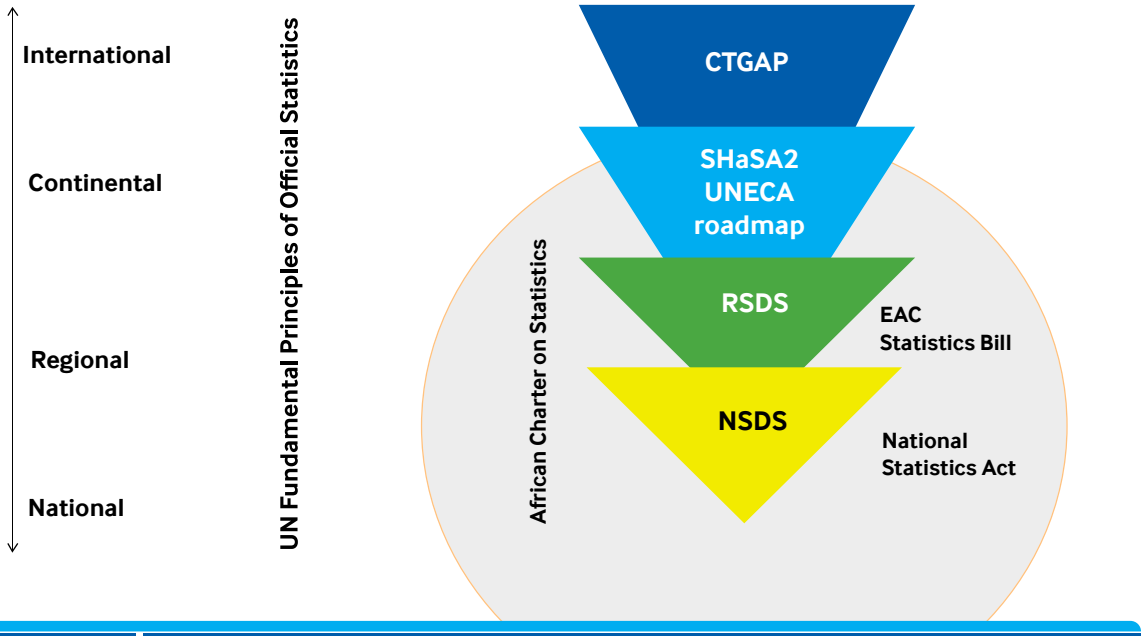
Figure 1: Traditional NSS versus emerging data ecosystem



c) NSS linkage to the International Statistical System

It is important to stress that the development of the NSS cannot be achieved in isolation because the NSS is part of wider regional, continental and international statistical systems. Its development is impacted by statistical developments at these various levels. Its is, therefore, crucial to appreciate and develop the NSS in the context of these various systems, taking advantage of opportunities they present for knowledge transfer, peer learning and bench-marking of best practices. The following figure presents the linkages of the NSS to the international statistical systems.

Figure 2: Linkages of the NSS to the international statistical systems



CTGAP	Cape Town Global Action Plan for Sustainable Development Goals
SHaSA2	Second Strategy for the of Statistics in Africa
UNECA roadmap	UN Economic Commission for Africa Roadmap for Transformation and Modernization of Official Statistics in Africa
RSDS	Regional Strategy for the Development of Statistics
NSDS	National Strategy for the Development of Statistics

The figure shows that statistical principles and frameworks cascade from international level, to continental, to regional (EAC) and finally to national level. They are, therefore, expected to be implemented at national level.

d) Statistical Principles

The principles include the UN Fundamental Principles for Official Statistics, the African Chart on Statistics, the EAC Statistics Bill and the National Statistics Act.

- **The UN Fundamental Principles for Official Statistics:** These were adopted by the UN Statistical Commission in 1994 and endorsed by the UN General Assembly in January 2014. They provide a compass and point of reference for all official statistical work and operations in all countries.
- **The African Charter on Statistics** was endorsed by the 12th Ordinary Session of the Assembly of Heads of State and Government of the African Union in February 2009. The Charter, which builds on the Fundamental Principles, is a tool for statistical advocacy at the highest level of government and commits countries to develop statistics in a manner consistent with best practice and international standards; for African governments to scale up support to statistics; and to use statistics for policy development, planning and decision-making at all levels.
- **The EAC Statistics Bill**: This Bill is in the process of finalization. Its main import is establishment of the East African Statistics Bureau as an autonomous institution of the EAC to underpin the Regional Statistical System (RSS). Among other things the Bill aims to build statistical capacity among EAC Partner States to produce harmonized statistics required to support regional integration and development.
- At country level, there is the **Statistics Act of 2007** which derives from the UN Fundamental Principles of Official Statistics. It is important that the Statistics Act is also aligned with the African Charter on Statistics and the EAC Statistics Bill.

e) Statistical frameworks

The statistical frameworks on official statistics also cascade from the international down to national level. They include the following:

- The **Cape Town Global Action Plan for Sustainable Development Data (CTGAP**) is an international framework that provides direction for statistical development in the world with a special focus on strengthening NSSs so that they can be most responsive to statistical needs to achieve the 2030 development agenda and beyond. The plan was launched at the first UN World Data Forum held in Cape Town, South Africa in January 2017, adopted at the 48th Session of the UN Statistical Commission in March 2017, and welcomed by the UN General Assembly in its resolution on the work of the Statistical Commission pertaining to agenda 2030. Recognizing the evolving data landscape and the mid-point of the 2030 Agenda, a revised framework, referred to as CTGAP2.0, was introduced at the Fifth United Nations World Data Forum held from November 12-15, 2024, in Medellín, Colombia. The revised plan aligns with other international frameworks, such as the Global Digital Compact and the Pact of the Future, to ensure a cohesive approach to data governance and utilization. By focusing on these streamlined priorities, CTGAP2.0 aims to enhance the global data ecosystem's ability to support sustainable development effectively[3].
- The **Second Strategy for the Harmonization of Statistics in Africa (ShaS**A2) was adopted by the African statistical community as the general framework for statistical development on the continent. It aims to provide harmonized and quality statistics for the design and implementation as well as monitoring and evaluation of integration and development policies in Africa. It was endorsed in 2010 by the Joint Conference of African Ministers of Finance and Economy.
- The principles and priorities for **Transformation and Modernization of Official Statistics in Africa** as set out in the "*Road map for the transformation and modernization of official statistics in Africa, 2023-2030*" were adopted at the 8th session of the Statistical Commission for Africa. endorsed and called upon African statistical system stakeholders to integrate them into national and regional planning relevant to the development of official statistics. The UNECA's Conference of African Ministers of Finance, Planning and Economic Development during the fifty-fifth session in April 2023 called on countries, institutions and development partners to support the implementation of the said road map.
- The **EAC Third Regional Strategy for the Development of Statistics (RSDSIII).** The RSDSIII (2022/23 - 2026/27) was formulated to support regional integration by compiling and making available relevant, timely and accurate regional statistical information. It was endorsed by the Council of Ministers, which is the policy-making organ of the Community. It aims to support statistical development in Partner States in many statistics areas.
- The National Strategy for the Development of Statistics (NSDS) is internationally-recognized as the best framework for building statistical capacity across the entire NSS and for dealing with a plethora of NSS challenges in developing countries. It aims to strengthen the entire a NSS and not just the NISR. In particular, it is a robust, comprehensive and coherent framework to address data limitations, prioritize the use of resources, integrate statistics within national policy processes, and introduce and manage change to the NSS. It is critical that NSDS4 is aligned to the above international frameworks.

1.3 The Fourth National Strategy for the Development of Statistics (NSDS4)

Rwanda has built a history of statistical planning and is one of the four African countries that have successfully designed four rounds of the National Strategy for the Development of Statistics (NSDS). The NSDS is a strategic framework for building statistical capacity across the NSS and meeting the ever increasing user needs. It is also a framework to:

- better coordinate the NSS
- address statistical challenges
- mobilize and prioritise use of resources
- introduce and manage change

3 The CTAP2.0 is a realigned, streamlined and priority orientated framework for advocacy on data and statistics for sustainable development. In this context, the CTGAP launched in South Africa in 2017 is referred to as CTGAP1.0.

- accelerate adoption of the "data revolution" in the country

The NSDS1 was implemented from 2009/10 to 2013/14, followed by NSDS2 implemented from 2014/15 to 2018/19 and NSDS3 implemented from 2019/20 to 2023/24. The fourth NSDS (NSDS4) is planned for implementation from 2024/25 to 2028/29. The following diagram compares the NSDS4 and its predecessors.

Figure 3: Comparison of NSDS4 with its predecessors

The strategic intent of NSDS4 is to **consolidate gains** from previous three rounds of NSDS; capitalize on enabling GoR **policy frameworks and political will** to support statistical production and development; **transform and modernize** the traditional NSS; and husband traditional NSS transition into a **broader data ecosystem** characterized by **higher levels of data maturity**, viz**:** high level of capabilities in terms of data culture, processes and people. This level is about "*virtuous cycle*" state of a NSS where there is a strong data culture of perceived data value and use, and institutionalized stakeholder engagements; processes are sophisticated, automated, standardized, and optimized, agile and in constant state of innovation and improvement; enabling statistical and IT infrastructure are in place; and workforce can boast of new knowledge and strategic skills as well as motivation (UNECA, E/ECA/STATCOM/9/2024/15/Rev.1). NSDS4 is aligned with the above development statistical agendas and frameworks. It is also anchored in the aforementioned statistical principles and frameworks at various levels.

1.4 NSDS4 Design Approach

This NSDS covers the period between mid-2024 and mid-2029. The design of the three rounds of NSDS of mid-2009 to mid-2024 provided rich experience to NISR design team. The design process followed a well-established process that is **consultative, participatory, and inclusive**. Seven steps recommended by PARIS21 guidelines[4] were followed in the design of NSDS4. They include the following:

- **Step 1:** This step consisted of setting up the design team made of eight NISR Staff. The team possessed diverse skills and was drawn from a wider professional background covering the functional directorates of the institute. The full list with names is mentioned in the acknowledgement part of this strategy document.
- **Step 2:** This step was about identifying and listing of key stakeholders. The list included but was not limited to:
  - NISR management levels made up of the Board of Directors, Director General, Deputy Director General, Directors, and all Staff responsible for data production, management and analysis.
  - NSS management and staff responsible for data production and analysis.
  - Local Authorities (LAs) mainly the district level structures.
  - Development Partners (DPs) including the World Bank (WB), International Monetary Fund (IMF), United States Agency for International Development (USAID), the Department for International Development (DIFD), GTZ, European Union (EU), the UN ecosystem, EAC agencies, AU, bilateral and multilateral countries, and other agencies.
  - Local and international Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs), and

4 PARIS21 NSDS Guidelines 3.0, OECD, Paris 2018

Faith Based Organizations (FBOs).

– The private sector mainly large organizations and SMSEs.

- Secondly, at this stage the design team identified few but **highly relevant documents** and **literature** to allow them gain intimate knowledge, best practices, empirical as well as theoretical insights that strengthened their understanding of the process of designing the NSDS4. These documents are categorized into national, regional, continental, and global perspective. They are cited and mentioned in the list of Bibliography in this document.
- **Step 3:** The design team members carried out a deep desk review of the entire list of documents, reports and literature and a summary note was developed for quick reference.
- **Step 4:** S**takeholder** consultations were done. Structured interviews with brief questions were undertaken and the results were used as inputs into NSDS4 drafting. Moreover, **round table and focus group meetings** were held with the same intentions as the consultation.
- **Step 5:** The actual drafting of the NSDS4 began at this stage and its **outline and contents** were discussed among the team members and approved by the NISR senior management. This was an iterative process that involved frequent interactions among the team members and the management.
- **Step 6:** This step allowed the design team to bring together a larger number of experts and stakeholders into a single room for two consecutive days to contemplate and deliberate on the matters to be included in the NSDS4. It was a well-attended **workshop** held in Kigali during the month of September 2023. The entire NSS members; that is, sector MDAs, public institutions and the rest of the stakeholders mentioned in Step 2 above were invited and attended. The workshop was a result of joint effort with the **United Kingdom (UK) Office of National Statistics** who provided technical support and resource mobilization.
- In addition, **a five-day retreat** was held in the second week of June 2024 in Bugesera District. The purpose of this retreat was to refine and iron out any outstanding opinions about a few matters concerning the contents of the NSDS4 and to build consensus. This was held in collaboration with and supported by PARIS21 initiative virtually online where for two days, PARIS21 made presentations on **"Mainstreaming Climate Change Data and Gender Statistics in the NSDS4".** respectively.
- The above retreat was followed by a one-day workshop held in Kigali during the third week of June 2024, that was organized by the European Union Delegation in Rwanda. The stakeholders attended in large numbers, and it covered the scope of coordinating and managing NSS and the design of NSDS4.
- **Step 7:** The NSDS4 draft process is completed, and NDS4 is signed off and approved by the established structures ready for dissemination.

1.5 Organization of the NSDS4 document

The NSDS4 is organized into four chapters, each of which contains several sub-sections. Chapter 1 presents demand and supply of official statistics in Rwanda. Chapter 2 presents the assessment of both the NSS and the NISR as well as main findings from the assessment. Chapter 3 presents the strategic framework that includes strategic foundations (the vision, mission, core values) and strategic direction (goals, strategic priorities and initiatives) for the five years of the life period of NSDS4. The last chapter, chapter 4 presents implementation of the strategy covering the potential risks, its financing, monitoring and evaluation aspects.

The document presents several references and annexes that include the NSDS4 Log frame, list of statistics produced by NISR, list of indicators produced by various sectors and projects/activities for NISR and MDAs in the NSDS4.

Chapter 2:

Assessment of the NSS

2.1 Why the assessment of NSS?

It is standard practice in strategic planning to undertake an assessment of the current situation to inform the design of a new strategy because if we do not know where we are, we cannot rationally determine where to go from here. Therefore, in order to design an effective and relevant NSDS4, an assessment of the current state of the NSS was made. It was ensured that such an assessment was comprehensive, realistic and objective, including from the user perspective and taking into account ongoing statistical programmes and projects. The assessment also used best practices and was benchmarked against international standards and frameworks as appropriate. The assessment led to an understanding of the adequacy of the statistical outputs and the organisation and management of the NSS as a whole.

The assessment of the NSS was undertaken by NISR in 2024 to create an understanding and paint a picture of the NSS in terms of:

- legal and institutional framework for production of official statistics;
- current and future data user needs;
- linkages and co-ordination arrangements among producers and between producers and users of statistics;
- existing capacity (institutional, infrastructural, technical and resources) to meet user needs and fill existing data gaps;
- how statistics are produced - methods and procedures, adherence to international standards, constraints and challenges, etc.;
- how statistical data are managed - archived, analysed and disseminated; and
- integration of ICT into statistical work and programmes.

2.2 Assessment using external sources of information

Assessment of the NSS using external sources of information is attractive as it is easy – uses open-source (Internet) and it lends an outside and credible voice to the results of the assessment. The external sources of information for the said purpose were the World Bank and the Open Data Watch.

World Bank Statistical Performance Indicator

The World Bank Statistical Performance Indicator (SPI) is a new tool to measure the performance of NSSs in 174 countries from 2016 to 2022[5]. It is designed to be used by national governments and statistical offices as well as international agencies and donors. The goals of introducing the SPI were: to offer a forward-looking framework, to measure all statistical systems – from less mature to highly advanced, to cover the entire NSS - not just the NSI, and to provide countries incentives to build modern statistical systems[6].

The SPI is an open-source framework for assessing the performance of statistical systems and the efforts to improve them. The SPI comprises 5 pillars, namely: data use, data services, data products, data sources and data infrastructure. The table below summarizes the five pillars and provides a brief explanation of each pillar.

5 Measuring the Statistical Performance of Countries: An Overview of Updates to the World Bank Statistical Capacity Index Technical Note, World Bank SPI Team, March 2021

6 Ibid

Table 2: Five Pillars of the SPIs

Pillars	Description
Data Use	This pillar evaluates how effectively statistical information is used for evidence-based decision making and policy formulation. It assesses the extent to which data is integrated into various processes by different users such as policymakers, academicians and researchers, private sector, civil society, journalists, and the public in general.
Data Sources	This pillar refers to the origin of statistical information, including surveys, censuses, administrative records, etc. It examines the quality, coverage, and representativeness of data sources, their reliability and relevance for producing accurate and timely statistics.
Data Products	This pillar comprises the range of statistical outputs and publications produced by NSS members. It evaluates the relevance, accuracy, timeliness, and accessibility of statistical reports in different formats and their consistency across the time.
Data Services	This pillar measures the effectiveness and user-friendliness of data dissemination platforms, data visualization tools, metadata repositories, and other services offered to data users.
Data Infrastructure	This pillar examines the adequacy, reliability, and interoperability of data infrastructure components, such as data management systems including data storage systems, the security of data (transmission and accessibility), IT infrastructure, and data sharing protocols.

Each of these pillars is supported by 4 or 5 dimensions (see figure below) and uses defined methods and indicators, all available as open data. Scores for each pillar and dimension combine to produce the overall country score on a scale of 0-100. A detailed description of the SPI framework by pillar, dimensions and underlying indicators are displayed for each country on the World Bank SPI dashboard7.

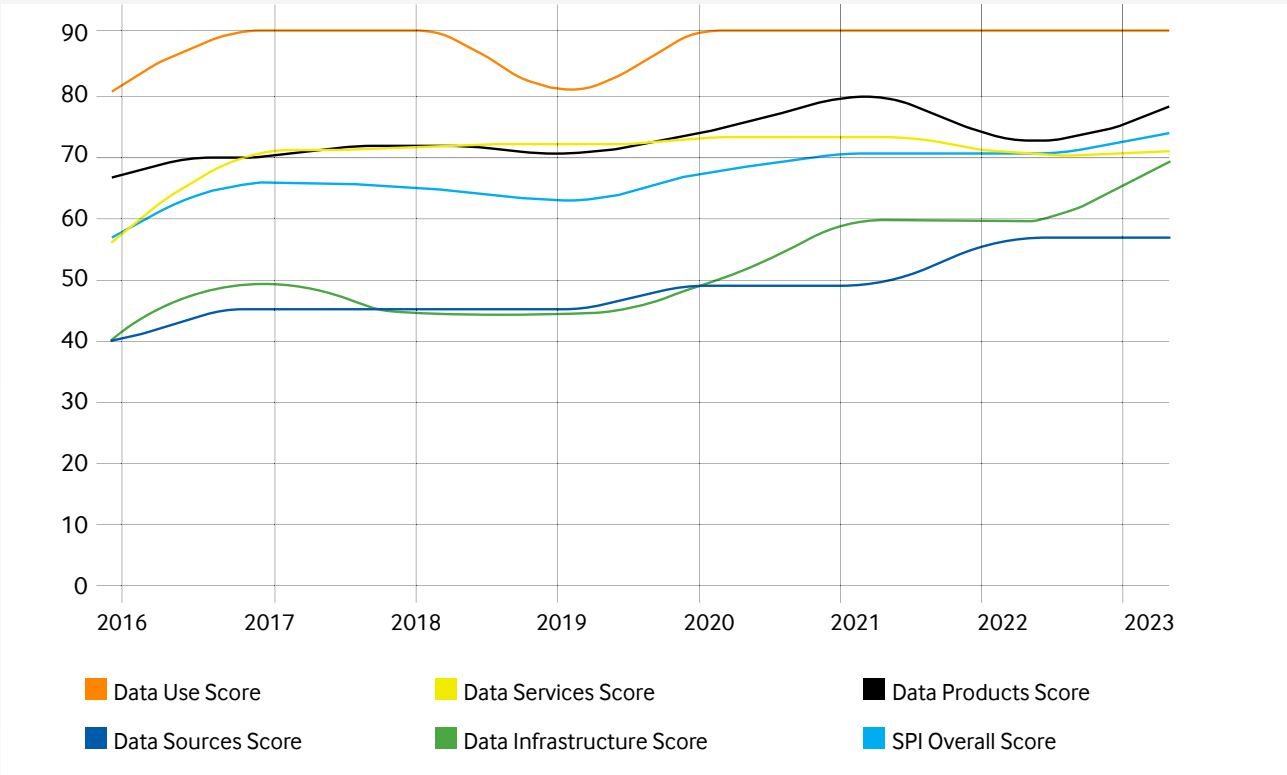
The following figure presents Rwanda's score on each pillar from 2016 to 2023. It can be seen from the figure that:

- The score on data use has been consistently high, rising from 80 in 2016 to 90 in 2023.
- The score on data services rose from 56,03 in 2016 to 71.13 in 2023.
- The score on data products rose from 66.23 in 2016 to 77.64 in 2023
- The score on data sources rose from 40.02 in 2016 to 56.93 in 2023. This score shows that there has been less than satisfactory development of data sources compared to other SPI pillars.
- The score for data infrastructure rose from 40 in 2016 to 70 in 2023. This is hefty improvement.
- The SPI overall score rose from 56.46 in 2016 to 73.4 in 2023. This very impressive performance compared to 2023 overall score by partner states in the EAC: Burundi (47.3), Democratic Republic of Congo (52.4), Kenya (70.6), Somalia (49.7), South Sudan (27.5), Tanzania (69.9) and Uganda (72).

Overall, the above scores indicate satisfactory performance save for data sources to which the NSDS4 is paying a lot of attention. The NSDS4 should therefore improve Rwanda's statistical performance on all pillars of the SPI.

7 https://www.worldbank.org/en/programs/statistical-performance-indicators/explore-data#2

Figure 4: Rwanda's score on the World Bank Statistical Performance Indicator



Open Data Index

This initiative brings together government, technology, and policy advocates working together to advance government financial data transparency as open data have the potential to empower citizens, improve how government works and improve service delivery. Some governments have signed up to the open data charter and open data principles. Periodic open data inventory is undertaken to assesses the coverage and openness of official statistics to identify gaps, promote open data policies, improve access and encourage dialogue between NSOs and data users.

The Open Knowledge Foundation8 has compiled an Open Data Index (0-100) for the years 2015, 2016, 2017, 2018 & 2020, 2022. The index is a tool used to assess and track the state of open government data around the world. It typically evaluates various aspects such as the availability, accessibility, and usability of government data across different sectors. The index is often used by researchers, policymakers, and advocates to measure progress in open data initiatives and to identify areas for improvement.

In 2022 assessment, Rwanda ranked 64th in the world and the first in Africa with a overall score of 59 (coverage at 55 and openness at 63). Overall scores of other African countries are 57 for Tunisia (72nd in the world), 54 for Tanzania (81th in the world), 53 for South Africa (85th in the world), 51 for Benin (91th in the world), 45 for Nigeria (115th in the world), 421 for Ghana (131st in the world), etc.

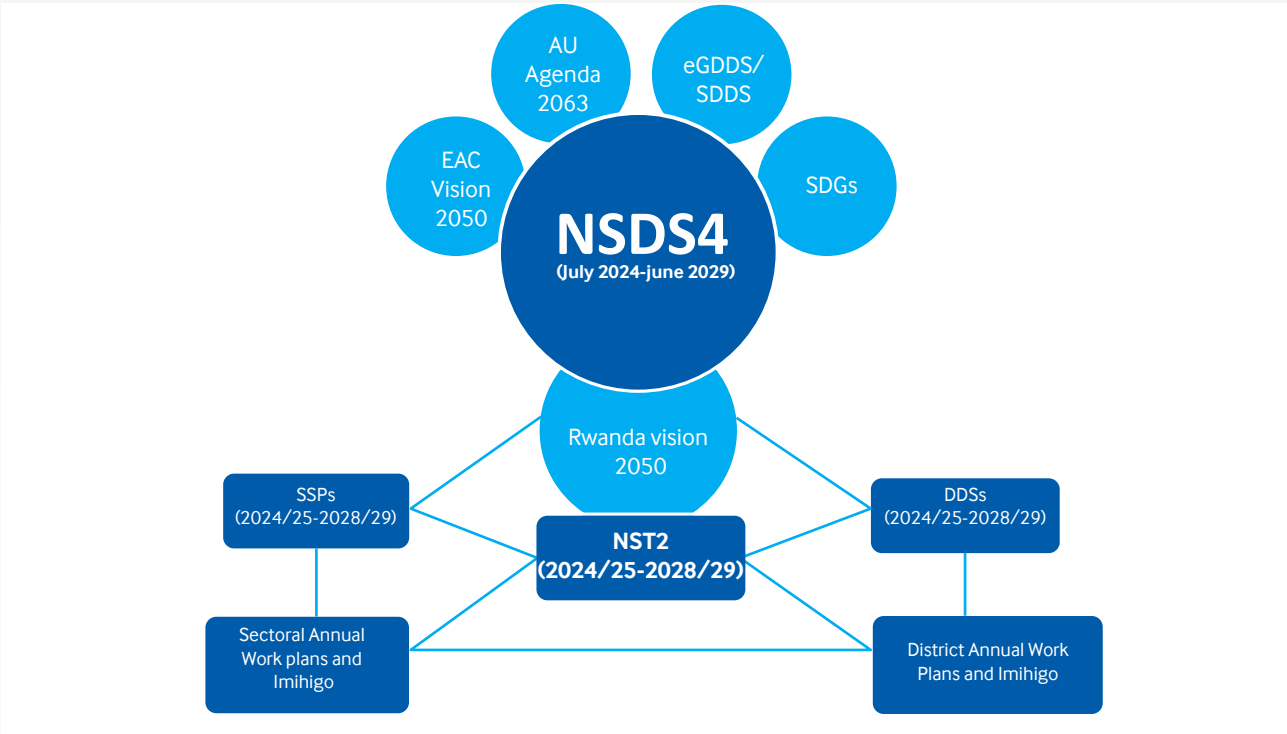
The NSDS4 should lead to even better performance by Rwanda on the Open Data Index.

2.3 Data Demand and supply assessment for development Initiatives

The assessment covered all the development initiatives at national, regional, continental, and global levels to ascertain their related data demands and supply in terms of the indicators. This schematic diagram provides a simplified presentation of the interaction between key development initiatives whose data demands (indicators) were assessed, mapped, and associated with the various sectors.

8 *Open Knowledge Foundation* is part of a worldwide movement working together for a fair, free and open future.

Figure 5: Development initiatives at national, regional, continental, and global levels



Generally, official statistics are **demanded and/or supplied** to support evidence-based policy formulation and decision making, planning and M&E in the context of national, regional, and global development initiatives.

On one side, the data is demanded by Ministries, Departments and Agencies (MDAs), national and international organizations, civil society for evidence-based planning in the context of national, regional, and global development initiatives and their M&E framework. Data is also demanded by academicians and researchers for research and development (R&D), and by journalists for reporting purposes. The citizen also demands and use statistics so that they are well informed and *become responsible citizens*.

On the other hand, data is supplied mainly by the NISR that conducts surveys and censuses at a national scale. Statistical information is also supplied by MDAs, mainly as administrative data that are generated through their reporting systems.

Districts and sectors (Imirenge) in their operations and planning both demand and supply data useful for evidence-based policy formulation and decision-making processes. The following aspects were assessed for an effective understanding of the data management and utilization at the local level that aims at improvements:

Districts need statistics for evidence-based planning, policy formulation and decision making. This data could be from primary as well as secondary data sources. Each district has a statistician whose responsibility is to compile available statistics for his/her district and share them with other district staff for use.

Nonetheless, **international organizations** are in constant data demand for their support programs in economic development, health, social-economic, agriculture, and ICT indicators. For instance, the annual data demands by the International Telecommunication Union (ITU) documents and the monthly data demands by the IMF (Cady et al, 2006). in the context **of electronic General Data Dissemination Standards (eGDDS)** and/or **Special Data Dissemination Standards (SDDS).**

Rwanda is ambitious to subscribe to the SDDS (IMF, 2013) to reap the benefits that are attached to this exercise such as:

- Easy access to international capital markets[9]: Adherence to the SDDS is often seen as a prerequisite for accessing international capital markets. Investor's view SDDS subscription as a sign of a country's willingness to provide high-quality data, reducing uncertainty and risk.

9 Sovereign borrowing cost and the IMF's data standards initiatives, Cady & Pellechio, 2006

- Transparency and market confidence[10]: The SDDS promotes transparency in economic and financial data, which helps build market confidence and facilitates investment decisions. Subscribing countries signal their commitment to providing timely and comprehensive data.
- The requested data may come from surveys, censuses and other statistics produced by NISR and/or MDAs. These data demands are directed to MDAs or to NISR.
- Similarly, international organizations use the same data to carry-out various country statistical estimations in between periods. If this is not well coordinated and managed, it could be a potential source of discrepancies between statistical results from different sources. Therefore, NSS should enhance their collaboration with the international organizations to **ensure there is convergence and harmonization of** their approaches and methodologies.
- Aside, the media sector also showed interest in the use of official statistics to increase credibility of their news release. The assessment disclosed that statistical references are playing an important role in journalistic products. More and more articles, TV and radio programs are now being accompanied by at least one reference to statistical report from NISR or any other sources. During the NSDS3 implementation, the culture of using statistics by journalists was strengthened. This is because NISR invested a lot in training programs for journalists and increased their statistical capacities.
- In the private sector, small and medium size enterprises (SMSEs) are continuously applying official statistics for their business planning processes. At times both large and SMSEs conduct their own surveys with authorization from NISR if the surveys coverage is beyond one province or the City of Kigali.
- Civil society for their planning and reporting purposes of their activities; academia, and researchers for their academic and research activities have increasingly started using various official statistics.
- Lastly, more efforts should be directed towards the creation of **awareness and advocacy for wider dissemination** of statistical products available to reach data users and suppliers, and the public in general to allow them to become knowledgeable and responsible citizens.
- Therefore, journalists, private sector, civil society, researchers, academia, and others must **regularly be trained** to increase their understanding and use of statistics in media reporting products. NISR and other data producers are required to increase the **dissemination and accessibility** of statistical information they have or produce.
- Sections 2.4 and 2.5 provide details on the assessment of NISR and MDAs capacities to respond to various data demands.

2.4 NSS capacities to respond to data demands.

a) Statistical information produced and published by NISR

NISR is the competent authority responsible to collect, process, produce and disseminate official statistics in Rwanda. It was established by an Act of Laws in 200511. It has accumulated a wealth of experience in producing official statistics through surveys, censuses and administrative records.

Censuses

The main censuses undertaken by the Institute include:

Population and Housing census: This is the main source of demographic/population data pertaining to size, distribution and some socio-economic characteristics which are necessary for democracy, good governance and planning for socio-economic development. Many development indicators use census data as the base. The census is undertaken every 10 years and was last undertaken in 2023.

Establishment census:

This census is defined by the UN as the total process of collecting, compiling, evaluating, analyzing and publishing or otherwise disseminating economic data pertaining, at a specified time, to all units in a country or in a well delimited part of a country. Undertaking the census is crucial for rebasing GDP of the country. This census was last undertaken in 2020.

10 Special Data Dissemination Standard: Guide for Subscribers and Users, International Monetary Fund (IMF, 2013)

11 Law creating the National Institute of Statistics of Rwanda

Surveys

Sample surveys are enquiries in which data are collected from a sample (or subset) of the population. On the basis of sample observations, inference or general statements are made about the whole population and its characteristics. The following surveys are commonly carried out by the NISR with indicated frequency:

Household-based surveys:

- Agricultural Survey (seasonal)
- Demographic and Health Survey (every 5 years)
- Integrated Household Living Conditions Survey (Household Budget Survey) (every 3 years)
- Labour Force Survey (every quarter)
- National Service Delivery Survey (every 5 years)

Economic surveys

- Integrated Business and Enterprise Survey (annual)
- Quarterly Business Survey (quarterly)
- Informal Sector Survey (every 5 years)
- Cross-border Survey (annual)
- Consumer Price Survey (monthly)

In addition, NISR compiles key socio-economic indicators whose frequencies vary. They include: Poverty, Consumer Price Index (CPI), Producer Price Index (PPI), Trade Statistics, National Accounts and Satellite Accounts.

NISR is using data innovation to improve the statistical information given to users. The innovations include: increased data scope, increased data disaggregation, integration of statistical information and geo-spatial information, leveraging advances in ICT to improve data production and dissemination, making use of new and non-traditional data sources, Big Data and Data analytics, and data dissemination (open data platforms including data portals). NISR also publishes Annual Statistical Yearbook which is mainly a compilation of administrative data collected from different sources. For this reason, NISR collaborates with MDAs to improve systems that generate administrative data which are transformed into official statistics such as CRVS and SDMS.

b) Challenges of data production by NISR:

- Emerging Data Requirements: As societies evolve and new challenges emerge, there is increasing demands for data on emerging issues such as climate change, digital transformation, migration, governance, etc. NISR is requested to adapt its data collection and analysis activities to address the evolving data demands without ignoring the traditional ones.
- ICT development: The increased growth in innovations and discoveries of new tools and technologies, updates and upgrades for data collection, processing, and analysis is a mounting challenge to NISR. Therefore, NISR is urged to embrace the up-to-date technologies to ensure their effectiveness and efficiency to supply statistical information through surveys, censuses, and other sources.

Data quality

The aspect of data quality assurance has been of great importance for NISR from its inception and forms a major ingredient in the design of all the four rounds of the NSDSs. It is known that data quality depends on several parameters and must be handled carefully at each stage of the statistical process. In this regard, NISR works on the following to ensure the highest level of data quality:

- User engagement: NISR has always involved users, providers, and suppliers of data at the conceptualization and the design stage for surveys, censuses, and administrative records to ensure that the data to be produced is of the highest quality. Their involvement helps to ensure that the resulting statistics are relevant for evidence-based policy formulation

and decision-making.

- Recruitment, training, and motivation of enumerators: NISR allocates enough time for training enumerators before surveys and censuses. Training aims to impart relevant technical and soft skills on enumerators to collect high quality data. In addition, NISR ensures that enumerators work in a conducive environment that enhances their motivation before, during, and after the field work. In this context, enumerators' salaries and related benefits have been revised upwards in their favor. Simultaneously, working conditions have always been catered for through availing all necessary materials that are needed for data collection during sunny and rainy seasons. In addition, reliable transportation is provided for field work. Often, NISR uses its own vehicles and at times hired vehicles to supplement its fleet of vehicles. However, private car hiring process is through the existing frameworks as established by MINIFRA. Mostly, many of the NISR vehicles are old and need to be replaced by new orders.
- Effectiveness and efficiency of data collection methods and tools: There is a strong correlation between data quality and data collection tools and methods. Considering this fact, NISR is no longer using paper-based questionnaires. These have been replaced by Computer Assisted Personal Interviews (CAPI) administered via smartphones or tablets. The NISR ICT team ensures that the CAPI based questionnaires are well developed using modern technologies. Firstly, NISR must be satisfied that these gadgets have been tested for quality and functionality. Secondly, the Institute must confirm that these gadgets have been tested in the field before the main data collection exercise to make sure they are effective and compatible with NISR's existing ICT infrastructure.
- Data disaggregation and granularity: NISR recognizes that data disaggregation as well as its granularity are important aspects of data production because it helps to ensure that no one is left behind. Therefore, in all data collection exercises NISR ensures that whenever it is applicable data are collected in a way that allows the availability of disaggregated statistics as much as possible, and in accordance with international standards. In this context, indicators are disaggregated mainly by sex, age, education, income, economic status, geographic location, disability status, etc. However, in some cases, collection and publication of granular and disaggregated data may not be feasible because of many reasons such personal and corporate data protection.
- Compliance with international standards for statistical activities: During the implementation of the previous three rounds of NSDS, NISR and the NSS in general complies with the international standards for official statistics including the ten UN Fundamental Principles for Official Statistics and International Standards for Statistical Classification that are customized to the national context, etc. In addition, Rwanda always collaborates with other countries to harmonize and standardize the statistical activities at regional and global levels. In this context, NISR and other NSS members collaborate with other data producers in EAC member states to develop guidelines that will lead the statistics harmonization and standardization in EAC. The same efforts are also undertaken at global level in context of SDGs and other indicators.
- The use of ICT and GIS for official statistics production processes: The use of ICT and GIS has become increasingly important at NISR, enabling more efficient statistical processes including data collection and field work supervision, data processing and data analysis in a highly secured environment, data dissemination and data access. In this context, NISR adopted robust security measures at national level and international standards that ensure the highest protection of its data from unauthorized access, breaches, and cyber threats. These measures include implementing encryption protocols to secure data transmission and storage, regularly updating security systems, conducting vulnerability assessments, and disaster recovery mechanisms to mitigate risks. In the same spirit of integrating digital information in all statistical processes, NISR in collaboration with other NSS member institutions invests in the use of GIS technologies including satellite imageries to capture geospatial data. This makes it possible to attach additional information such as location, boundaries, and coordinates of the data source object. When this is integrated with other data, it helps to improve sample designs and enhance the quality during the data collection process. The same efforts are also invested in data dissemination that aims at easing the access and reuse of statistical information from surveys, censuses, and other data sources. In NSDS4, these efforts will continue for the supply and use of timely and good quality statistics for evidence-based decision making and policy formulation.
- Management of respondent behavior and characteristics: NISR also considers the role of each respondent related

behavior in ensuring the data quality. In this regard, in collaboration with local authorities and media organs, NISR plans and conducts awareness and advocacy campaigns well in advance and during the data collection process to obtain individual collaboration in statistical activities. These efforts will be maintained to ensure that the public is always informed about the importance of statistics and their contribution to develop and sustain the national statistical system.

C) Tools for data quality assurance

- NISR has developed tools which are used to ensure data quality. They include the following:
  - Guidelines for quality assessment of administrative data,
  - NISR Survey Operating Procedure Manual,
  - National Quality Assurance Framework,
  - Compendium of Main Concepts and Definitions
- To produce official statistics through surveys and censuses, and strengthening administrative data systems, NISR will focus on the following:
  - Enhancing ***technical and soft skills*** of the NISR staff that are involved in surveys and censuses.
  - Strengthening the use of ***ICT based mechanisms*** for Data Quality Control.
  - Strengthening the ***user engagement*** to produce official statistics.
  - Collaborating with MDAs for the development of ***administrative data*** to support and complement surveys and censuses.
  - Updating the customized ***Standards Classification Manuals*** to match the recent ones at global level.
- The use of Big Data Analytics (BDA) and Data Science Techniques (DST) for Official Statistics

NISR takes seriously the development of BDA and other DST initiatives such as data generation through large, complex datasets, geospatial data, and satellite imageries, since they constitute alternative sources of data that can supplement the supply of timely official statistics for evidence-based policy formulation and decision making.

- In this context, a **Department of Big Data and Data Revolution** has been established within NISR structure with thirteen (13) staff members. It collaborates with other stakeholders at national, regional, continental, and global levels to develop new methodologies to be used for statistical business process models and in the production of official statistics. These new methods include but are not limited to the alternative sources that apply the emerging technologies and methods including BDA and AI. The new directorate also has the mandate to support other NSS member institutions for the same objective.
- However, leveraging these new data sources and related technologies require special technical skills and infrastructure, and they need to meet certain data standards to ensure their proper integration into the existing data value chain. Also additional considerations related to data privacy, data accuracy, and data interoperability are made in this regard where more information about these is documented at the link provided below[12].
- Furthermore, the directorate's mandates extend to maintaining the ethical and responsible use of this data. Therefore, NISR and other data producers in all sectors will keep building the required skills and other relevant capabilities to leverage the BDA and DST to improve the quality of official statistics. In addition, through the UN-RHBD, NISR and other NSS member institutions will increase collaboration with other NSOs to exchange knowledge for the development and/or use of the new methodologies to support traditional methods for official statistics.
- Communication and dissemination of statistical information

Over time, data communication across the NSS members has been improving. The entire ecosystem of public institutions has established **websites** with **pages** that display or publish frequently statistical information in different formats. The use of *infographics* in statistical reporting is also becoming familiar across NSS members.

NISR and other NSS members have invested heavily in advancing **advocacy and creating awareness** to ensure there's optimal citizen's participation and collaboration to the growth of the NSS in data collection, promoting accessibility and the

12 https://www.techtarget.com/searchapparchitecture/definition/interoperability

application of statistical information for evidence-based planning, policy formulation and decision making at various levels.

In this context, the use of **mass media** and **social media** in both **print** and **electronic** media to inform the public has proved to be very useful during the design and implementation of surveys and censuses. Several capacity building workshops have also been organized with various data users in public and non-public institutions. Most statistical reports produced by NISR, and other data producers can be accessed online on the public institution's websites and that of the Institute.

Additional efforts are needed to disseminate these statistical reports to reach a wider audience including members of the public, data users at both central and local levels, in real time. Efforts are underway to produce statistical reports that are user-friendly and readily accessible for the various consumers including policy makers, researchers, academicians, journalists, and others that use statistical products for various purposes. However, NISR is fully cognizant that there are no strong methods to monitor the impact of data dissemination on evidence-based decision making and policy formulation.

To strengthen the **communication and dissemination** of statistical information, NISR will focus on the following:

- Enhancing the communication and data dissemination team: To deal with the new challenges of communication, publication, and dissemination of official statistics, there is a need for a Data Communication Directorate with a clear Communication Strategy within NISR organizational structure. This is crucial for ensuring effective communication with various stakeholders/groups/audiences and dissemination of statistical information. In addition, NISR will collaborate with partners and stakeholders at national, regional, continental, and global levels to continuously build technical and soft skills on data communication.
- Leveraging the cutting-edge technologies to improve the data dissemination: The development of Interactive Dashboards that facilitate data users to explore and analyze data dynamically is highly needed. The NISR website will also be upgraded as required by user's demands and the evolving related technologies including AI. The website will be upgraded in a way that facilitates data integration and analysis, allowing developers and researchers to programmatically access and use the data. NISR will provide Application Programming Interfaces (APIs) and more machine-readable formats For the said purpose.
  - Improving publication of statistical information: This will include publication of statistical information in Kinyarwanda, use of infographics in statistical reports, and more machine-readable tables. This will enhance accessibility, understanding and use of statistical information.
  - Enhancing the dissemination of statistical information at the local level: Local leaders are involved in the data collection during surveys and censuses. It is the NISR obligation to share the findings with them and capacitate them to use of the findings for planning, policy formulation and decision-making.
  - Establishing feedback mechanisms that allow data users to provide input on the usability and relevance of disseminated statistics. This two-way communication will help NISR to address user needs in a timely manner and enhance their data products.

d) Sectors and their Statistical Systems

Sector Statistical Systems produce most of the data required for monitoring national and international development. As it can be seen in the following paragraphs, up to 84% of the data required for monitoring development indicators is produced by the sectors. This underscores the importance of strengthening sector statistical systems.

Under the coordination of NISR, sectors were guided to undertake self-assessment of their statistical systems in terms of profile, data demand and supply, status of administrative data, key data challenges and strategic orientations. This was done during a two days training workshop in September 2023 at the NISR Training Centre for directors of planning and statisticians for central government and districts.

All sector MDAs across Rwanda can produce statistics through **surveys or administrative records**. Some sectors leverage their **administrative records** and transform them into official statistics and few of them are published. However, there are a few sectors that are not leveraging administrative records to transform them into statistics and publish them.

District data supplies: Local governments generate various administrative data through their daily operations. They include

records related to taxation, permits, citizen interactions, etc. In addition, local governments contribute a lot in data generation of sectors such as education, agriculture, social protection, etc. These data sources provide valuable understanding of living conditions of citizen at district, and in some cases at sector (Umurenge) level. However, there is a need to establish robust mechanisms for data quality assurance of these administrative data at local levels. Districts and their stakeholders are requested to work hand in hand to strengthen the district capacities in data collection, processing, and analysis.

Various systems for administrative records were either developed or strengthened in all sectors, but they are not leveraged enough to become relevant sources of data that can be transformed into official statistics. In this context, for more than 10 years, GoR through NISR has been investing a lot into the CRVS to make it another source of data for some vital events such as births, deaths, marriages, etc.

In the same context, NISR in collaboration with other stakeholders in the education sector is investing in the SDMS to make it a good source of data for some indicators in this sector. Experiences of these two administrative data systems will inform other sectors to strengthen their administrative records in a way that they can provide data that can be easily transformed into official disaggregated statistics. Whenever it becomes necessary, legal instruments will be revised to allow this to happen.

Sector coordination by NISR remains to be the main challenge towards the production of official statistics through administrative records. Another challenge is the **lack of staff** with the required technical skills. These two challenges lead to issues related to the planning and implementation of statistical activities in sectors.

Therefore, coordination of statistical activities at sector level must be strengthened by increasing collaboration and information sharing across institutions that are in the sector. Specifically, coordination of sector statistical systems is the responsibility of the sector line ministry that must establish regular mechanisms to plan and monitor programs, activities and/or projects that aim at supplying and using statistics.

In each sector there are **Sector Working Groups (SWG)** and **Technical Working Groups (STWG).**

Sector Working Groups (SWs) are technical working forums through which the GOR and stakeholders meet to discuss sector and cross-sector planning and prioritization according to strategic plans and development programs.

In addition, there are Technical Working Groups (TWGs) which are composed of staff of the sector leading ministry along representatives from Development Partners, Non-Governmental Organizations (NGOs), Faith-Based Organizations (FBOs), and Civil Society Organizations (CSOs) working in the specific areas and expertise of the TWG. These Working groups meet on a quarterly basis.

The TWG ensures that sectoral statistics are produced through administrative records, surveys, and censuses and/or BDA while observing national and international standards of official statistics.

The following sub-sections provide detailed assessments of sectors in terms of production and use of statistical information.

2.4.1 The Agriculture Sector Statistical System (ASSS)

The Profile of the ASSS

Rwanda has been actively developing and strengthening its ASSS to support evidence-based policy formulation and decision making, monitor agricultural performance, and contribute to the sustainable agricultural development. Agricultural sector is coordinated by the Ministry of Agriculture (MINAGRI).

The following are agencies that are involved in the ASSS:

The ASSS is made up of the following institutions that are coordinated by MINAGRI - the Rwanda Agriculture Board (RAB) and the NAEB. There're also development partners such as the Food and Agriculture Organization of the United Nations (FAO) that conducts the Comprehensive Food Security and Vulnerability Analysis (CFSVA) in collaboration with MINAGRI; Non-Governmental Organizations (NGOs) and private companies contribute also to some extent to the ASSS by generating statistics in the sector.

NISR conducts Seasonal Agricultural Surveys (SASs) to collect comprehensive data on Rwanda's agricultural sector. These

surveys cover multiple agricultural seasons (Season A that spans from September to February, Season B that spans from March to June, and Season C that spans from July to September) to provide data users with agricultural statistics covering land use, crop cultivation, and other key agricultural aspects.

NISR produces other statistical reports that contain statistical information related to the agriculture sector. These include the National Accounts (NA) and Price Indices (PI), and GDP, CPI, PPI, etc., Labour Force Survey (LFS), the EICV, Establishment Census (EC), Population and Housing Censuses, etc.

a) The ASSS data demand and supply

The agricultural statistics are highly needed by the agriculture sector or other sectors to facilitate the evidence-based decision making and policy formulation, planning, and M&E for national, regional, continental, and global development programs such as NST2, Vision 2050 and its sub-strategies, and the SDGs.

The following data are related to the agriculture sector:

- Crop production data: including acreage under cultivation for different crops, yield, and production statistics (by crop type, region, season, etc.), cropping patterns and crop rotations, irrigation data (area under irrigation, water sources, etc.)
- Livestock data: including population sizes of different livestock species (cattle, poultry, sheep, goats, etc.), production data (milk, meat, eggs, etc.), livestock health and disease monitoring data, feed and fodder availability and consumption data, etc.
- Fisheries and aquaculture data: including fisheries production, aquaculture production (by species, region, farming systems, etc.), fish stock assessments and sustainability indicators.
- Soil and land data: including soil characteristics, land use and land cover data, soil degradation and erosion data, data on sustainable land management practices, etc.
- Weather and climate data: including rainfall patterns, temperature, humidity, and other meteorological data, climate projections and scenarios, data on extreme weather events (droughts, floods, etc.), etc.
- Agricultural inputs data: including the use of fertilizers, pesticides, and other agrochemicals, seed varieties and their adoption rates, machinery, and equipment utilization data, etc.
- Market and trade data: including commodity prices (domestic and international), agricultural exports and imports, supply chain and logistics data, market access and trade barriers information, etc.
- Farm management and productivity data: including farm sizes, land tenure, and ownership patterns, farm labour and employment data, adoption of sustainable and precision agriculture practices, agricultural productivity, and efficiency indicators, etc.
- Food security and nutrition data: including household food consumption and dietary diversity data, prevalence of food insecurity and malnutrition, food availability, access, utilization data, etc.
- Socioeconomic and demographic data: including farmer characteristics (age, gender, education, etc.), rural household income and poverty data, access to agricultural extension services and credit, etc.

b) ASSS Reported Assessment Findings

Findings from the assessment showed that the total number of indicators in agriculture sector to be used in NSDS4 period is 67 allocated to national, regional, continental, and global development initiatives. Out of these indicators, about 60 indicators will be produced through administrative data systems in the agriculture sector, while 6 indicators will come from NISR surveys (EICV, Agricultural Household Survey and SAS) and the Comprehensive Food Security and Vulnerability Analysis (CFSVA), mainly by MINAGRI and World Food Programme (WFP) with NISR technical and methodological support.

c) The Administrative data in ASSS

The sector has a reporting system that can be used to generate administrative records. There are quite a few MIS in the ASSS that could be a good source of administrative data in the sector if well managed. They include the Smart Nkunganire System

(SNS), Smart Kungahara System (SKS), National Agriculture Livestock Insurance System (NAIS), Esoko, and Agriculture Land Information System (ALIS) for private investment. The main challenge is that all these systems are not integrated, and this aspect complicates the management and maintenance of the administrative data quality. The list of indicators in the ASSS is attached in annex 2.

d) Key Challenges of ASSS

- Capacity limitations: There is a lack of statistical personnel with the required skills for data collection, data analysis, and statistics dissemination, as well as the use of official statistics for evidence-based policy formulation and decision-making in the sector.
- Coordination of the agriculture statistical system: Effective coordination among the entities (public and private), research institutions, farmer groups, and development partners involved in the ASSS is a challenge due to differing priorities and institutional mandates.
- Quality and Completeness of Administrative Data: Administrative data in agriculture sector suffer from issues of incomplete coverage, missing data, or inconsistent data quality. This can affect the reliability and usefulness of the administrative data for statistical purposes.

e) Strategic orientations of the ASSS:

The following will be the sector focus for the development of the ASSS in the NSDS4 period:

- Collaborating with NISR to produce agriculture statistics through surveys, censuses, and other sources.
- Collaborate with other relevant sectors to strengthen systems for administrative data.
- Systems in the sector should be modernised, integrated, and harmonized in such a way as to be able to generate agriculture statistics.
- The use of BDA and DST should aim to support the traditional methods of official statistics.
- More capacity building initiatives for different actors in the ASSS should be organized.
- Coordination mechanisms for the production and use of agriculture statistics should be strengthened.

2.4.2 The Education Sector Statistical System (ESSS)

The profile of the ESSS

The Ministry of Education (MINEDUC) coordinates the ESSS. The following are agencies that are affiliated to the MINEDUC: Rwanda Basic Education (REB); Higher Education Council (HEC); National Examination and School Inspection Authority (NESA); Rwanda TVET Board (RTB); University of Rwanda (UR); Rwanda Polytechnic (RP); Rwanda National Commission for UNESCO[13] (CNRU).

The ESSS in Rwanda involves data collection, data analysis, and publication of statistics related to education in terms of various aspects of education, including available school infrastructure and materials, access to education, enrolment, retention, gender parity, school staff, IT/ICT in education and school textbooks at all education levels in Rwanda including nursery, primary, secondary, tertiary, TVET, numeracy and literacy in general.

The ESSS data demand and supply

The education sector requires diverse types of data to facilitate evidence-based policy formulation and decision-making, planning, monitoring and evaluation of national, regional, and global development programs such as NST1&2, EAC Vision 2050, AU Agenda 2063, and SDGs. The following are some types of data that are related to education sector:

- Student data: including demographic statistical information (age, gender, socio-economic status, etc.), enrolment and attendance data, academic performance data (test scores, grades, course completion, etc.), graduation and dropout rates, special education and learning support needs.

13 UNESCO abbreviates United Nations Education and Scientific Organization

- Teacher and staff data: including teacher qualifications, experience, and professional development, teacher-student ratios, teacher performance evaluations, staff attendance and turnover rates.
- Educational infrastructure and institutional data: including school buildings and resource availability (classrooms, libraries, labs, etc.), school funding and expenditure data, curriculum, and instructional materials, extracurricular activities, and programs.
- Learning outcomes and assessment data: including national and international student assessment results (e.g., PISA, TIMSS, PIRLS), subject-specific proficiency levels, learning progress and growth data.
- Educational equity and data access: including enrolment and achievement gaps based on gender, socioe-conomic status, ethnicity, or location, data on marginalized or underrepresented groups, accessibility, and inclusion measures for students with disabilities.
- Post-secondary and workforce data: including college and university enrolment, retention, and graduation rates, student loans and financial aid data, employment outcomes and job placement rates, skill requirements and labour market demands.
- Education policy and program evaluation data: including implementation and effectiveness of educational policies and initiatives, impact assessments of educational interventions and reforms, cost-effectiveness and return on investment analyses.
- Educational technology and online learning data: including usage and adoption of educational technology tools, online course enrolment and completion rates, learning analytics and student engagement data.

Education statistics are essential and used for educational planning, resource allocation, curriculum development, teacher training, and overall improvement of educational systems. They also help stakeholders and policymakers to make informed decisions and develop strategies to enhance teaching and learning outcomes.

ESSS Reported Assessment Findings

The sector assessment findings showed that the total number of indicators in education sector to be used in NSDS4 period is 80. These can be disaggregated into national, regional, continental, and global development programs indicators. The assessment shows that 76 indicators will be produced through administrative data systems in the education sector: that is about 95% of the total sector indicator. While 6 indicators will come from NISR surveys (EICV and LFS). The Fifth Population and Household Census provides a lot of statistical information that support evidence-based decision and policy making in education sector.

Administrative data in education sector (Sector Information Management System and data management at district level)

Every year, the education sector publishes the Education Statistical Yearbook. This publication takes data from the School Data Management System (SDMS) and other administrative records from the education sector.

The SDMS can provide a huge amount of administrative data. This is because it encompasses various modules, including an academic module for registering individual student and staff records, an infrastructure module for documenting school facilities, a special programs module for recording education program data, and finance-related modules for budgeting and accounting. Additionally, it includes functionalities for requesting Capitation Grants and School Feeding Funds (CGSFF).

However, the administrative records' data systems in the education sector can be transformed into a single system. This integration will improve the management and maintenance of the administrative data process in the sector. In addition, regular training programs and supervision of education data clerks at local level could be implemented to ensure the highest quality of administrative education data is produced. The list of education indicators is attached in annex 3.

Challenges of the ESSS

- Maintaining the school data management system (SDMS): Maintaining the SDMS pauses a significant challenge due to the absence of resolute staff at the school level that are responsible for its management and utilization. Without a designated individual, the data base is not updated, and the data quality may be compromised. This leads to outdated

information and reduced system efficiency.

- Integration of SDMS with NIDA information: Currently, the SDMS is not linked with NIDA. Yet, linking SDMS with NIDA information systems will help to streamline registration processes and enhance data accuracy.
- Coordination: Coordinating the ESSS is crucial for ensuring the availability of timely data with good quality to support evidence-based policy formulation and decision making, resources allocation, and M&E of educational outcomes. However, coordination of various entities in education sector for the purpose of statistical system is challenging.

Strategic orientations of the ESSS:

- Collaborating with NISR to produce education statistics through surveys and censuses.
- Strengthening the administrative data systems as a vehicle of getting timely education data.
- The current SDMS will be integrated with other administrative systems in the sector and in the NSS.
- Leveraging big data analytics and data science techniques to support the traditional methods of official statistics, such as learning assessment data, geospatial data, etc.
- Capacity building for different actors in the ESSS.
- Enhancing coordination among various stakeholders, including MDAs and development partners.

2.4.3 Environment & Natural Resources Sector Statistical System (ENRSSS)

Profile of ENRSSS

The development of a robust statistical system for environment and natural resources in Rwanda has always been one of the priorities for the NSDS. This is due to the importance of reliable data for informed decision-making and monitoring progress towards national, regional, continental, and global development programs, such as RV50, SDGs, etc.

The Environment & Natural Resources (ENR) sector is coordinated by the Ministry of Environment and Natural Resources (MINENR). The following agencies also play a vital role in the development of ENRSSS: Rwanda Environment Management Authority (REMA); Rwanda Land Management and Use Authority (RLMUA); Rwanda Water Resource Board (RWB); Rwanda Meteorology Agency (RMA); Rwanda Green Fund (FONERWA), Rwanda Forest Authority and Rwanda Development Board (RDB).

Sector data demand and supply

The ENR statistics are highly needed by the sector or other sectors to facilitate the processes of planning and monitoring for national, regional, and global development programs such as RV50 and its sub-strategies, the SDGs, etc. The ENR statistics are also highly needed to produce the **Natural Capital Accounts (NCA),** which is an important framework that put together economic data and environmental data to understand better the country environmental assets and their impact on citizen's well-being and the national economy.

Consultations and desk reviews highlighted that the following types of data are needed and produced by ENR sector:

- Biodiversity and protected areas: including statistics for national parks, forest reserves, and wetlands. The country is home to unique biodiversity, including mountain gorillas in the Volcanoes National Park.
- Natural resource inventory data: including forest inventory data (types, extent, biomass, etc.), mineral and energy resource data (reserves, extraction rates, etc.), water resource data (surface water, groundwater, etc.), land use and land cover data, etc.
- Forestry and land management: including statistics that are related to soil erosion and land degradation, sustainable agricultural practices; etc.
- Water resources: including statistics for water infrastructure, including the construction of dams and water treatment plants, access, and use of freshwater resources.
- Environmental quality data: including air quality data (levels of pollutants, particulate matter, etc.), water quality data

(surface water, groundwater, marine water); soil quality data (contamination levels, nutrient content, etc.); noise pollution data, etc.

- Renewable energy: with a focus on hydropower, solar, and geothermal sources.
- Waste and pollution data: including solid waste generation and management data, industrial waste and hazardous waste data, wastewater discharge and treatment data, greenhouse gas emissions data; waste management: statistics for solid waste management, including electronic waste and hazardous waste streams, waste sorting and recycling initiatives, etc.
- Climate change: including data of temperature, precipitations, greenhouse gas emissions distributed across various sectors, etc.
- Public awareness and participation data: data on environmental education and awareness programs, data on community participation in environmental initiatives, data on stakeholder engagement and consultation processes.

2.4.4 The list of ENRSSS indicators is found in annex 4 of this report.

ENRSSS Assessment Findings

ENRSSS will supply a total of 74 indicators into the NSDS4 covering the national, regional, continental, and global development programs. Among these 72 indicators will come from the administrative records, while 3 indicators will come from surveys and censuses conducted normally by NISR including the EICV, RDHS, SAS, etc.

Sources of Statistical Information for ENR

- Surveys and Censuses: Surveys and Censuses conducted by NISR contain rich information that are crucial for evidence-based policy formulation and decision making in ENR sector. They include the EICV, RDHS, SAS, etc. The Population and Housing Census contains also rich information that can be used by the ENR sector.
- Administrative data in the ENR Sector: There are many opportunities to produce ENR data through various reporting platforms within the ENR sector and managed by MDAs including the Ministry of Environment and linked agencies/ Authorities. The sector developed its Management Information System (MIS) that aims at compiling data from various sources; all institutions in the sector have also established systems that allow them to capture data according to their operations.
- These for instance include the Rwanda Water Management Board (RWMB): which is establishing a system that captures the level of water on all rivers and lakes in Rwanda on regular basis. At the district level, the ENR sector has District Environment Officer whose responsibilities are to collect sector indicators on regular basis and upload them into the Environment Management Information System (EMIS). If these systems are strengthened, administrative records will be improved and related data will be transformed into statistics in the sector of ENR.
- Censors generated data: these are data that are generated by censors on rivers and other water sources through the Rwanda Water Resources Board (RWRB) efforts to monitor the level and quality of water resources in Rwanda. They are published in real time through the Rwanda Water Resources Portal14.

Key challenges in the ENRSSS

The following are challenges in the ENR Statistical System:

- Sector Coordination: The ENR sector involves multiple stakeholders including government agencies, research institutions, NGOs, and private entities. Coordinating data collection and sharing across these diverse actors can be complex.
- Timely availability of ENR data with good quality: Some areas lack proper monitoring systems, leading to gaps in environmental and natural resource statistics.
- Capacity Building programs: Developing statistical expertise within the ENR sector is essential. There is limited capacity

14 Rwanda Water Resources Portal, https://waterportal.rwb.rw/about_us

in the sector to collect, analyse, interpret and dissemination data in this sector. This points to the need to strengthen the statistical skills of professionals to ensure reliable data production.

- Integration of environmental and socioeconomic data: There are different MIS in the sector that need to be integrated to facilitate the data management in the sector. In addition, ENR reporting systems can be linked with other socioeconomic indicators systems to provide a holistic view.
- Data dissemination: Statistical information is not readily accessible to policymakers and researchers. and the public.

The ENRSSS must be well developed and well-coordinated in a way that they supply timely and superior quality data to support evidence-based policy formulation and decision making and facilitate the production of Natural Capital Accounts (NCA) data.

Future orientation of ENRSSS

The ENRSS will focus on the followings among other activities, programs, and projects in NSDS4:

- Producing timely and good quality data for NCA: these data will enhance the general understanding of the role of environment and natural resources in the Rwanda economy and citizens' well-being.
- Enhancing the use of Internet of Things, Big Data Analytics and Data Science Techniques for ENRSSS data: Leveraging modern technology (such as remote sensing, GIS, and big data analytics) can enhance data collection and analysis. However, adopting these tools requires investment and capacity building.
- Establishing regular coordination mechanisms for ENR data including harmonizing methodologies, standards and definitions is crucial for consistency and comparability of statistics.
- Transforming and/or modernizing methods and tools for data collection, data management and data analysis.
- Establishing mechanisms for data quality control to validate data accuracy, but resource constraints can hinder their implementation.
- Establishing various dissemination channels for ENR data including user-friendly platforms such as dashboards and open data portals for a comprehensive dissemination of ENR data; the ENR Statistical Yearbook, etc.
- Integrating data from different systems and sectors (e.g., agriculture, energy, health) to enhance policy formulation.

2.4.5 Energy Sector Statistical System (ENSS)

The profile of the ENSSS

The energy sector is coordinated by the Ministry of Infrastructure (MINIFRA). The main implementing institution in this sector is REG with its subsidiaries EDCL and EUCL. But other institutions, especially in private sector, play a vital role in energy sector. This includes the sale of petrol and gas.

The ENSSS covers the collection, processing, analysis, dissemination, and use of data related to energy production, energy consumption, energy import and energy export. The ENSS in Rwanda is supposed to track data on energy production from various sources, such as hydroelectric, thermal, and renewable energy.

Additionally, it monitors energy consumption patterns in different sectors, including residential, industrial, and commercial.

Sector data demand and supply.

The Rwanda ENSS covers diverse types of data to support evidence-based planning, M&E, and policy formulation, and decision making, not only in the energy sector, but also for other sectors. Here are some of the data that are produced by the energy sector:

- Energy production data: including electricity production related data (by source: hydropower, thermal, solar, etc.), fuel production related data (petroleum products, biofuels, etc.), renewable energy production related data (solar, geothermal, etc.) and cooking energy related data.
- Energy use data (percentage of households using electricity): Electricity use related data including by source of electricity

(grid, off-grid, or mini-grid), by category (residential, productive, and social users of electricity), clean cooking energy use data including by technology and source of fuel and geographical locations and biomass for cooking use data.

- Energy consumption data: including electricity consumption related data (residential, commercial, industrial, etc.), fuel consumption related data (petroleum products, cooking fuel, etc.), energy consumption patterns and trends by sector (transport, industry, households, etc.) and cooking energy consumption related data for households, institutions in service sector and industries.
- Energy infrastructure data: including data on energy generation facilities (power plants, refineries, etc.), transmission and distribution network data (grid infrastructure, pipelines, etc.), energy storage facilities (batteries, fuel storage, etc.).
- Energy resources and reserves data: including data on energy resources (coal, oil, natural gas, etc.), renewable energy resource potential (solar, geothermal, etc.), energy reserves and depletion rates.
- Energy trade data: including energy imports and exports (electricity, petroleum products, etc.), energy trade balance and dependency, etc.
- Energy pricing and tariff data: electricity tariffs for different consumer categories, petroleum (Fuel & LPG) prices and subsidies, etc.
- Energy efficiency and conservation data: including energy efficiency indicators (energy intensity, energy use per capita, etc.), data on energy-efficient technologies and practices, energy audits and energy management data.
- Environmental and social impact data: including greenhouse gas emissions from the energy sector, air pollution and other environmental impacts, social impacts (energy access, affordability, etc.)
- Energy investment and finance data: including investment in energy infrastructure and projects, energy sector financing and revenue data, data on energy subsidies and incentives, etc.

In addition, NISR provides a few demographic and sociolect-economic indicators that are used to inform the energy sector. These are for instance the population size and population distribution data, and population projections, household living conditions including household income and household expenditure related, economic indicators (GDP, industrial growth, etc.) and other indicators that are linked to energy sector.

ENSSS Assessment Findings

Findings show that very few indicators will come from the ENSSS totalling 16 covering national, regional, continental, and global development programs. Out of these 16 indicators, 5 will come from NISR surveys (EICV) and the Population and Housing Census, while 11 indicators will be produced through administrative records. The list of indicators is presented in annex 5 at the end.

Administrative Data in the Energy Sector

The main source of administrative data in the energy sector remains the REG and EUCL Information Management Systems that can avail administrative data of electricity production and use in Rwanda. The RURA publishes these administrative data on quarterly basis.

Key challenges in the ENSSS:

The ENSSS faces several challenges that can impact its accuracy, timeliness, and usefulness in data use and supply. They are related to various factors such as technological limitations, staff insufficiency, and resource constraints.

These challenges negatively impact the data quality:

- Administrative data in energy sector that does not cover all relevant aspects of the energy sector comprehensively. Certain energy sources, consumption patterns, or sub-sectors are underrepresented or not included, leading to an incomplete picture of the energy landscape. In some cases, administrative data may not adequately capture information on renewable energy sources or emerging technologies. This limitation can hinder the assessment of progress toward

sustainable energy goals.

- Complexity of energy systems: The energy sector consists of a wide range of sources including fossil fuels, renewables, processes including extraction, conversion, transportation; and end-uses that are grouped into residential, commercial, and industrial. These concepts make data management in the energy statistics to be very complex.
- Sector coordination: Energy data are collected and managed by various institutions and companies. Their coordination to ensure timely data management is a challenge to date.
- Limited staff capacity in charge of managing the energy sector data.

Strategic orientations of the ENSSS:

The following is needed to strengthen the ENSSS:

- Setting up clear indicators that reflect long term national and global strategic plans.
- Strengthening the administrative data systems as a sustainable way of getting timely energy data and cover all energy sub-sectors such as the oil consumption, solar energy, and clean cooking technologies adoption.
- Collaborating with NISR to produce energy statistics through surveys and censuses.
- Consolidation of the team in charge of energy statistics by increasing the number of staff and enhancing their technical and soft skills for the production and use of statistics in energy Sector.
- Producing the **Energy Statistical Yearbook** that will provide comprehensive energy data.
- Integrating the use of BDA and AI to modernize the production and use of statistics in the energy sector.
- Integrate disaggregation of energy data by geographical location in terms of urban-rural stratum, administrative location, and gender classifications i.e., male-female headed households on all relevant energy data indicators.

2.4.6 Financial Sector Statistical System (FSSS)

Profile of FSSS

The Rwanda FSSS includes different components that provide insights into the country's financial sector. MINECOFIN coordinates the FSSS that is a producer as well as user of the financial statistics.

The following are constituents of the FSSS:

- The NISR and the National Bank of Rwanda (BNR) play significant roles in producing financial sector statistics, including monetary statistics, balance of payment statistics, and financial soundness indicators. They work together to produce economic statistics like the Producer Price Index (PPI), Consumer Price Index (CPI), and Industrial Production Index (IIP).
- In terms of data dissemination, NISR and BNR publish regular statistical reports, and data on their website, providing information on different financial statistics such as price indices, monetary and financial sector developments, interest rates, exchange rates, and other key indicators.
- FSSS supports and improves regional and international cooperation on financial sector statistics. For instance, Rwanda is a member of the EAC Monetary Affairs Committee (EMAC) and the IMF's Statistical Data and Metadata Exchange (SDMX) initiatives. This cooperation offers opportunity to work with other countries for the harmonization of statistical practices in financial sector and promotes knowledge sharing.
- Finally, RSSB, RURA and RRA also play a vital role in the production and use of data on financial sector statistics.

The FSSS Data Demand and Supply

The FSSS produces different types of data to support evidence-based decision making and policy formulation. Here are some of the key types of data supplied:

- Monetary and financial statistics: This includes the money supply and liquidity indicators; interest rates and yield curves;

foreign exchange rates and reserves; banking sector indicators (loans, deposits, capital adequacy, etc.)

- Financial market data: including stock market indices and trading volume; bond market data (yields, prices, issuances, etc.); derivative market data (futures, options, swaps, etc.); commodity market data (prices, trading volume, etc.)
- Balance of payments and international investment position: including trade in goods and services; income and current transfers; capital and financial account transactions; external debt and reserves.
- National accounts and financial accounts: including Gross Domestic Product (GDP) and its components; household and business financial accounts; financial flows and balance sheets.
- Public finance statistics: including government revenue and expenditure; budget deficits and public debt; fiscal policy indicators and sustainability measures.
- Financial soundness indicators: including capital adequacy and asset quality of financial institutions; profitability and liquidity indicators; non-performing loans and loan loss provisions.
- Financial inclusion and access data: including access to financial services (banking, insurance, mobile money, etc.); usage and adoption of financial products; financial literacy and consumer protection metrics.
- Fintech and digital finance data: including mobile money and digital payment statistics; cryptocurrency and blockchain-related data; crowdfunding and peer-to-peer lending data.
- Investment and capital flow data: including Foreign Direct Investment (FDI) and portfolio investment; remittance flows; capital inflows and outflows.
- Financial infrastructure and regulation data: including financial regulatory frameworks and compliance data; financial integrity and anti-money laundering data; financial consumer protection data.

The list of indicators belonging to FSSS is depicted in annex 6.

FSSS Assessment Findings

A total number of indicators in FSSS to be produced in NSDS4 period is 49 from administrative records and 9 indicators will come from surveys and national accounts compiled by NISR and/or BNR. These indicators are needed not only at national level, but also at regional, continental, and global levels. They comprise indicators that are needed for SDDS subscription (Cady et al, 2006).

Administrative data in Finance Sector

NSDS4 will look at administrative records to respond to some data demands at national, regional, continental, and global levels. In FSSS, there are many reporting systems that can easily generate administrative data to be transformed into official statistics.

BNR is implementing MIS as an aid to the development of statistical system namely Integrated Banking Supervision System (IBSS) that facilitates data collection and monitoring of financial institutions.

Key challenges in the FSSS

The following are challenges faced by the FSSS:

- Timeliness and frequency: A few financial sectors institutions face delays in reporting or lack the capacity to provide data on a more frequent basis.
- Human resources: There is not sufficient human and technical resources within the financial sector statistical system to ensure effective data collection, processing, and analysis.
- Coordination and data sharing: Effective coordination and data sharing among various stakeholders is a challenge due to institutional regulations or data collection methodologies.

The future orientation of FSSS

The FSSS will focus on the following in NSDS4:

- Improving the timeliness and frequency of data releases to support timely decision-making and monitoring in the financial sector.
- Continuous capacity building and training programs are required to enhance the skills and expertise of staff involved in financial sector statistics.
- Enhancing mechanisms for data integration and harmonization across different sources.
- Strengthening coordination mechanisms for the data production and sharing in the financial sector.

2.4.7 Governance and Decentralization Sector Statistical System (GDSSS)

Profile of GDSSS

The Ministry of Local Government (MINALOC) supports and implements the decentralization policy and initiatives. It is responsible to collect, process, analyse, disseminate, monitor, and evaluate governance and decentralization data at the local level. The Rwanda Governance Board (RGB) is responsible for promoting good governance practices and monitoring governance indicators.

The GDSSS is coordinated by MINALOC. The following are institutions/agencies that are affiliated to the Social Protection Sector: RGB, LODA, MINUBUMWE, MINAGRI, MIGEPROF, etc.

Decentralization Structure: Rwanda has a four-tier decentralized administrative structure: provinces, districts, sectors, and cells. Data collection and reporting mechanisms are established at each level, with districts playing a pivotal role in compiling and consolidating data from lower administrative levels.

Data Collection and Reporting: The NISR conducts regular censuses, surveys, and administrative data collection exercises to gather information on various governance and decentralization aspects. Districts and lower administrative units are required to report on a range of indicators related to local governance, service delivery, and development activities. The RGB conducts periodic governance assessments and surveys to measure governance indicators at different levels.

The GDSSS data demand and supply

The GDSSS produces and supplies statistical information that facilitate the M&E exercise of national, regional, continental, and global development initiatives such as the NST2, EAC2050, AUA2063, and SDGs, etc.

The following is the list of indicators to be produced by the sector in NSDS4 period:

- GDSSS supplies and demands the following Local governance and service delivery data: performance indicators for local government entities (districts, sectors, and cells); service delivery data (education, health, water, and sanitation), infrastructure and development project data, public finance and budget execution data at the local level, citizen satisfaction and feedback data on service delivery, etc.
- Decentralization and devolution data: fiscal decentralization indicators (revenue sources, expenditure patterns, intergovernmental transfers), human resource capacity data at decentralized levels, data on the transfer of functions and responsibilities to local government, indicators of citizen participation and community involvement in local decision-making, etc.
- Transparency, accountability, and anti-corruption data: public access to information and open data indicators, corruption perception and experience data, data on public complaints and grievance redressal mechanisms, procurement, and contract monitoring data, etc.
- Rule of law and justice sector data: justice indicators, crime and security statistics, data on legal aid and alternative dispute resolution mechanisms, data on human rights and gender-based violence (GBV).
- Political participation and representation data: voter registration and turnout data, data on political party representation and competition, representation of women, youth, and marginalized groups in decision-making bodies.
- Environmental governance and natural resource management data: land ownership and use data, data on natural

resource exploitation and conservation efforts, environmental impact assessment data, climate change and disaster risk data, etc.

The list of GDSSS indicators is shown in annex 7.

GDSSS Assessment Findings

The assessment established that GDSSS indicators to be produced during the NSDS4 period are 67. Among them, 49 indicators will be produced through administrative records at different institutions in the sector, while 18 indicators will be produced through surveys conducted by NISR, RGB or any other institution in the sector.

The work of volunteers has contributed significantly to strengthening the national socio-economic development and good governance initiatives in Rwanda. As such, the GDSSS is expected to produce data related to volunteer work in the country. However, the volunteer work15 must be well defined before it is integrated in the GDSSS.

Administrative data in GDSSS

The **GDSSS** has a lot of reporting systems that can facilitate the development of statistical system in the sector and generate data that will be transformed into official statistics.

However, there is a need to integrate all these systems to facilitate the compilation and publication of these administrative statistics. There is also a need to establish **data quality checking mechanisms** for all statistics that will be generated through administrative data records.

Key challenges in the GDSSS

Challenges of **GDSSS** include**:**

- Ensuring data quality and consistency across different administrative levels.
- Continuous capacity building and resource allocation to maintain and enhance the statistical system.
- Further integration and harmonization of data collection processes across different sectors and levels of government.

The focus of the GDSSS in NSDS4

In addition to the NISR efforts of supplying statistical information that can be used by all sectors, the GDSSS support is directed to:

Enhance coordination and collaboration mechanisms:

- Enhance the coordination framework that involves key stakeholders, such as the MINALOC, the Rwanda Governance Board (RGB), and other relevant ministries and agencies.
- Promote data-sharing and integration across different levels of government and sectors.
- Foster collaboration with development partners, civil society organizations, and the private sector to leverage their resources and expertise.

Transform and modernize data collection and management systems:

- Strengthen administrative data platforms, improve the use of modern technologies and digital tools such as BDA and AI for data collection, data analysis, dissemination, and interpretation of statistical information[16].
- Develop robust data management systems that ensure data quality, security, and interoperability across different sources and levels.
- Update standardized and harmonized data collection methodologies, definitions, and classifications to ensure data consistency and comparability.

15 As defined in the latest statistical standards, **volunteer work** *comprises non-compulsory work performed for others without pay.*

16 In this area, the process of Imihigo evaluation should be done through an online system.

Invest in statistical capacity building:

- Provide comprehensive training programs for statistical personnel at national and decentralized levels, focusing on data collection, data analysis and interpretation of statistical information.
- Strengthen the statistical units within local government entities (districts, sectors, and cells) by allocating adequate human and financial resources.
  - Explore partnerships with civil society, non-government organizations, academic institutions, and research organizations to support the production and use of statistical information in the sector.

2.4.8 Health Sector Statistical System (HSSS)

Profile of the HSSS

Institutional Framework: The Ministry of Health (MOH) is the principal institution responsible for overseeing and coordinating the HSSS. The HSSS is coordinated by the MoH and other institutions such as the Rwanda Biomedical Centre (RBC). The RBC is responsible for collecting, analyzing, and disseminating health-related data, including disease surveillance and public health emergencies.

The country currently operates a well-functioning, decentralized healthcare public service system comprising 1700 health posts, 500 health centres, 42 district hospitals, and five national referral hospitals. Rwanda also has a vibrant private health services sector, which comprises of 2 general hospitals, two eye hospitals, 50 clinics and polyclinics, eight dental clinics, four eye clinics, and 134 dispensaries.

Since the NST1 and NSDS3 implementation, Rwanda has made significant progresses in developing a robust health sector statistical system to support evidence-based decision making and policy formulation, monitoring, and evaluation. The momentum needs to be continued and accelerated for the NST2 and NSDS4 implementation.

Data sources of Health Statistics in Rwanda:

- Administrative data: Rwanda has implemented a comprehensive Health Management Information System (HMIS) to collect routine data from health facilities across the country. The HMIS covers a wide range of indicators related to maternal and child health, communicable and non-communicable diseases (NCDs), health service utilization, and health system performance. Electronic medical record systems, such as OpenMRS, are being adopted to improve data quality and interoperability. The RBC operates a robust disease surveillance system, including the Integrated Disease Surveillance and Response System (IDSRS), to monitor and respond to disease outbreaks and public health emergencies. The IDSRS collects data on priority diseases and conditions from health facilities and communities across the country.
- Population-based Surveys: Rwanda conducts regular population-based surveys, including the Demographic and Health Survey (DHS) and the Integrated Household Living Conditions Survey (IHLCS), which provide valuable health data. These surveys collect information on various health indicators, such as maternal and child health, nutrition, family planning, and access to healthcare services.
- Health Facility Assessments: Rwanda conducts periodic health facility assessments, such as the Service Provision Assessment (SPA), to evaluate the availability and quality of healthcare services. These assessments gather data on infrastructure, equipment, staffing, and service delivery at health facilities.
- However, there is a need to integrate different sources of health data to produce timely and good quality health data. Integration of BDA and other DST such as AI can also contribute a lot in strengthening the HSSS.

Capacity Building and Data Use:

- Building technical and soft skills for health data related aspects such as data collection, data analysis and interpretation, data communication and use is essential for translating health data into actionable insights and useful for informed decision-making. In this context, Rwanda through the MoH, NISR, and the stakeholders have invested in building capacity

for various levels of the health system and data users, including training programs for health workers and data managers, academia, and researchers, media, and civil society, etc.

- However, more efforts are needed to strengthen technical and soft skills for the production and use of health data at different levels.

Data Use of Health data*:*

- Health data is crucial for evidence-based policy formulation and for decision-making, planning, monitoring and evaluation for national, regional, continental, and global development programs and interventions such as NST1 and 2, SDGs, etc.
- The MOH promotes the use of data for decision-making through regular review meetings, data dashboards, and dissemination of health statistics and reports.
- However, more awareness and advocacy efforts are needed to boost the use of health data for evidence-based policy formulation, decision making, advocacy, and research purposes. Dissemination of health data, in machine readable and machine understandable formats, especially for administrative data, needs to be enhanced to allow data access and data use by different data users.

Partnerships and Coordination:

- Rwanda, through MoH, RBC, NISR and other players in health sector collaborates with international partners, such as the World Health Organization (WHO), UNICEF, ICF macro, USAID, and other development agencies, to strengthen its health sector statistical system. The partnership framework needs to be enhanced, especially to facilitate the introduction of new technologies and methodologies to produce health data in Rwanda.
- The Health Sector Working Group (HSWG) facilitates coordination and data-sharing among stakeholders in the health sector. More efforts are needed to boost the coordination of HSSS.

The HSSS data demand and supply

The HSSS requires and produces a wide range of data to support evidence-based decision making, planning, and monitoring for various aspects of health sector; on the other side health statistics can be used by other sectors for their planning, and M&E.

Here are some types of data that are related to the health sector:

- Demographic and population data: these are data that are produced mainly by the Population and Housing Censuses. They include different indicators such as population size disaggregated by age, by sex, by locations, by socio-economic status, etc., birth and death rates, fertility rates, life expectancy, migration related patterns, urbanization, and settlement, etc.
- Morbidity and mortality data: Incidence and prevalence of diseases, injuries, and health conditions; causes of death (by disease, age, gender, region, etc.); disability-adjusted life years (DALYs) and other burden of disease measures.
- Health service utilization and access data: these data include but are not limited to hospital admissions, outpatient visits and emergency department visits; availability, accessibility, and utilization of healthcare services (primary care, specialist care, diagnostic services, etc.); barriers to healthcare access (financial, geographic, cultural, etc.), etc.
- Health workforce data: Number of healthcare professionals (physicians, nurses, midwives, pharmacists, etc.) disaggregated by distribution and other characteristics such as their education levels, healthcare workforce in public and private health facilities, etc.
- Health financing data: household/individual healthcare expenditures (public, private, out-of-pocket, etc.); sources of healthcare funding (government, insurance, household contributions, etc.); financial protection and catastrophic health spending, etc.
- Health risk factor data: prevalence of risk factors (smoking, obesity, physical inactivity, alcohol consumption, etc.); environmental exposures (air pollution, water quality, etc.); social determinants of health (education, income, housing, etc.), etc.
- Maternal and child health data: antenatal care coverage, skilled birth attendance and postnatal care; immunization

coverage and vaccine-preventable diseases; nutritional status, breastfeeding practices, and childhood developmental indicators, etc.

- Disease-specific data: data of communicable diseases (HIV/AIDS, tuberculosis, malaria, etc.); data of non-communicable diseases (cancer, cardiovascular diseases, diabetes, etc.), etc.
- Health system performance data: data for quality-of-care indicators (patient safety, clinical effectiveness, responsiveness, etc.); healthcare resource allocation and utilization (beds, equipment, supplies, etc.); health information systems and data management capabilities, etc.

HSSS Assessment Findings

The assessment showed that indicators in HSSS to be produced in NSDS4 period totals 121. Among them, 87 indicators will be produced through administrative records at MoH and RBC. The remaining ones will be produced through surveys by NISR.

Administrative data in HSSS

The HSSS has a reporting system that enables the production of a big number of administrative data that covers different areas in health sector. These administrative data are generated through different systems for administrative records in health sector. These administrative data are published through the ASYB produced and published by NISR.

The CRVS is another source of administrative data in HSSS. The system was launched in 2018 and started with births and deaths registration at health facilities. Operationalization of the system was thereafter extended to all registration points and all vital events. Currently, the system includes the following nine (9) events: birth, death, marriage, annulment of marriage, recognition, adoption, guardianship, and legitimization. At the present, the system is digitalized that is, it is paper-less-based, and no paper templates are used for vital events registration. At the end of April 2024, births and deaths registration rate through CRVS stood at 90% and 41% respectively.

Challenges of the HSSS

Despite the significant progress made in developing the HSSS in Rwanda, there are still several challenges that need to be addressed:

- Gaps in Data Collection and Reporting: Some health programs or service areas, especially in private health facilities, have gaps in data collection or inconsistent reporting, leading to incomplete or fragmented data. Traditional medicine practitioners may not be adequately captured in the existing data collection systems.
- Data Quality and Completeness: Ensuring the accuracy, reliability, and completeness of data collected from health facilities and communities remains a challenge, especially in remote areas. Data quality issues may arise due to inadequate training, lack of standardized data collection tools, or limited supervision and monitoring. This is due to inadequate ICT infrastructure, especially in remote areas, which pauses challenges for electronic data collection, transmission, and storage. Limited access to reliable internet connectivity and power supply can affect the timely reporting and sharing of health data.
- Human Resource Constraints: High turnover rates or shortage of skilled personnel, particularly at lower levels of the health system, can disrupt data collection and reporting processes. Limited human resources with appropriate skills in data management, analysis, and use can hinder the effective functioning of the health sector statistical system.
- Data Integration and Interoperability: Integrating data from multiple sources such as facility-based HMIS, disease surveillance systems, and population-based surveys, is challenging due to differences in data formats, definitions, and standards. Achieving interoperability between different health information systems and ensuring data consistency across levels is a complex task.
- Data Use and Decision-Making: Ensuring that collected data is effectively used for evidence-based policy formulation, and decision-making, program planning, M&E, as well as resource allocation remains a challenge at various levels of the health system. Capacity building and change management efforts are required to promote a culture of data-driven policy formulation and decision-making.

- Funding and Resource Constraints: Limited and inconsistent funding for the HSSS can hamper its sustainability and impede necessary investments in infrastructure, human resources, and technological advancements. Over-reliance on external funding sources may pause risks to the long-term sustainability of the system.
- Coordination and Governance: Effective coordination and governance mechanisms are required to ensure alignment and collaboration among different stakeholders, including government agencies, development partners, and non-governmental organizations, in strengthening the HSSS. This remains a challenge to the HSSS.

The HSSS strategic orientations in the future

The following is an overview of the HSSS profile in the past, and strategic orientations in the future:

To Improve Data Collection and Analysis: The HSSS will focus on improving administrative data through routine health information systems, integrated disease surveillance and response systems. A new strategy for the CRVS development will be developed. In addition, periodic surveys like the DHS, EICV will also be conducted. Health data from different sources will be integrated to allow more holistic analysis.

To improve Data Dissemination: Dissemination of health statistics will also be improved, especially by availing more statistical information in infographics, summaries in Kinyarwanda and more machine-readable data.

Capacity building: The health sectors will invest in building technical and soft skills for staff involved in data collection and data analysis, and staff in charge of using health data for evidence-based policy formulation and decision making, planning, M&E application.

The list of indicators in the HSSS is attached as annex 8.

2.4.9 ICT Sector Statistical System (ICT-SSS)

The Profile of the ICT-SSS

The **ICT-SSS** is coordinated by the Ministry of ICT and Innovation (MINICT). Other institutions play a role in the development of ICT statistical systems. These are RISA, RURA, NIDA, MINEDUC and RDB.

The ICT-SSS data demand and supply

The ICT-SSS in Rwanda involves gathering data on various indicators. The main ones are the following:

- Internet Access: Assessing the penetration and accessibility of broadband and internet services, including the distribution of fixed and mobile broadband subscriptions.
- Mobile Cellular Subscriptions (MCS): Tracking the number of MCS and evaluating the growth and trends in mobile telephony.
- ICT Infrastructure: Monitoring the development and deployment of ICT infrastructure, such as optic fibber networks and other connectivity initiatives.
- E-Government Services: Evaluating the availability and usage of e-government services, including online platforms for public services and information dissemination.
- ICT in Education: Assessing the integration of ICT in educational institutions, including the use of technology for learning and administration.
- Digital Literacy and Skills: Evaluating the level of digital literacy and skills among the population, including educational and training programs.
- E-commerce and Online Transactions: Monitoring the growth of e-commerce and online transactions, including data on online retail, digital payments, and electronic financial services.
- Cybersecurity: Assessing the state of cybersecurity measures, including data on cyber threats, incidents, and the implementation of protective measures.

- ICT Investments and Expenditures: Analysing investments and expenditures in the ICT sector, including public and private sector spending on ICT infrastructure and services.
- Innovation and Research in ICT: Examining innovation indicators, research and development initiatives, and the adoption of emerging technologies in the ICT sector.

Key sector indicators are capture in annex 9 .

The ICT-SSS Assessment Findings

The assessment of the ICT-SSS sector shows that 49 indicators on the ICT-SSS will be produced in NSDS4 period. Among them, 42 indicators will be produced through administrative records and 7 indicators will come from surveys.

Administrative data in ICT Sector

Intensive use of ICT infrastructures in public and private institutions have created opportunities to develop administrative data, not only in ICT sector, but also in other sectors in Rwanda. The ITU Handbook for the Collection of Administrative Data17 in ICT is a key reference document for the collection of internationally comparable indicators on telecommunications that is ICT based on administrative sources.

The Handbook includes definitions and methodological clarifications for more than 90 internationally agreed indicators, discussed by the Expert Group on Telecommunication/ICT Indicators (EGTI).

Challenges of the ICT Sector Statistical System

- Lack of Standardization: The lack of standardized administrative data methods and tools across different institutions and sectors affect the production and analysis of ICT related data.
- Human Resource Capacity: There are limitations in human resource capacity, including a lack of skilled personnel with expertise in data collection, analysis, and interpretation of ICT statistics.
- Data Privacy and Security Concerns: Collecting and managing ICT-related data at individual and establishment levels may raise worries about privacy and security, particularly given that some ICT related information are sensitive.
- Rapid changes in ICT-SSS: The ICT sector is characterized by continuous advancements and rapid innovations, which can pause challenges for data analysis and comparability of ICT data across time.
- Focus of the ICT-SSS in NSDS4
- There is a need to harmonize data collection processes and standards to ensure the reliability and comparability of ICT statistics from different sources.
- Therefore, there is a need of continuous and adequate training and capacity building for staff that are involved in data collection and data analysis to ensure there is good quality ICT statistics.
- Ensuring compliance with data protection regulations and implementing robust security measures is crucial for maintaining trust and confidentiality.
- Guaranteeing that the staff in charge of ICT data management are updated about changes and innovations in the ICT sector to ensure data analysis is processed in a way that allows time-based comparability of ICT data.

The list of indicators of the ICT Sector during the NSDS4 is attached as annex 10.

2.4.10 Justice Reconciliation Law and Order Sector Statistical System (JRLO-SSS)

Profile of JRLO-SSS

The JRLO-SSS is coordinated by the Ministry of Justice (MINIJUST). The following are public institutions or agencies that are affiliated to the JRLO-SSS: MINIJUST, MININTER, MINUBUMWE, National Public Prosecution Authority (NPPA), Rwanda

17 Handbook for the collection of administrative data on telecommunications/ICT, 2020, Handbook for the collection of administrative data on telecommunications/ICT (itu.int)

Investigation Bureau (RIB), Rwanda National Police (RNP), Rwanda Correctional Services (RCS), Supreme Court (Judiciary), Office of the Ombudsman, Institute of Legal Practice and Development (ILPD), National Commission for Human Rights (NCHR), Rwanda Law Form Commission (RLFC) and the Rwanda Governance Board (RGB).

The JRLO-SSS is responsible for data collection, data processing, data analysis, and dissemination of statistics related to justice, reconciliation processes, and the maintenance of law and order in Rwanda.

The JRLO-SSS data demand and supply

Most of the JRLO-SSS data come from administrative records. The following are sub-sectors that contribute to its development:

- Judicial system: This includes data on the number and types of cases filed, pending, and resolved in courts at various levels; information on court backlogs, case processing times, and the efficiency of the judicial system; and statistics on the composition and workload of judges, prosecutors, and other legal professionals.
- Crime and public safety: Data on reported crimes, crime rates, and trends across different types of offenses, such as violent crimes, property crimes, and cybercrime; information on crime prevention measures, community policing initiatives, and public perception of safety and security; and statistics on law enforcement resources, personnel, and operations.
- Correctional facilities and rehabilitation: Data on prison populations, including inmate demographics, offense types, and sentence lengths; information on prison conditions, overcrowding, recidivism rates, and rehabilitation programs; and statistics on alternative sentencing options, such as probation, parole, and community service programs.
- Human rights: Data on reported cases of human rights violations.

The JRLO-SSS Assessment Results

The assessment of JRLO-SSS shows that the number of indicators in JRLO-SSS to be used in NSDS4 period is 136 allocated to national, regional, continental, and global development programs. Out of these 136 indicators, about 109 indicators will come from administrative records, while 27 indicators will come from surveys and censuses conducted by NISR and RGB.

Administrative data in JRLO-SSS

- This sector has different reporting mechanisms that can generate administrative data. The Integrated Electronic Case Management Information System (IECMIS) is one among other information management systems that are used in the sector. However, this system is not yet at a level of producing indicators for this sector.
- At district level, there is a Coordination Committee for JRLOS activities. This committee is composed of representative of all institutions operating in the JRLOS and a representative of all CSOs operating in the district, professional bailiffs (abaheshabinkiko), lawyers and the District Director of Good Governance. The secretary of this Committee is the MAJ Coordinator. At the end of every quarter the committee submits a report at the Ministry of Justice.

Challenges of the JRLO-SSS:

- Data Fragmentation: Various entities such as the Rwanda National Police, Judiciary, Prisons, and institutions in charge of reconciliation collect and manage data independently. This leads to difficulties in data integration and analysis.
- Data Quality and Reliability: Factors such as incomplete or inaccurate data, data entry errors, and lack of validation mechanisms compromise the overall quality of data in JRLOS, undermining its usefulness for monitoring and evaluation purposes.
- Data Privacy and Confidentiality: Collecting and managing data within the JRLOS, particularly sensitive information related to criminal justice proceedings, raises concerns about data privacy and confidentiality. Safeguarding the confidentiality of individuals involved in legal proceedings and reconciliation efforts is essential to maintaining trust and integrity within the justice system.
- Data Integration and harmonization: Integrating data from multiple justice sector institutions and partners is a challenge

due to lack of data standardization, interoperability of systems, and harmonization across different sources is negatively affecting the development of administrative data in JRLOS.

- Dissemination: Statistical information within the JRLOS is complex. It contains legal terminologies, procedural complexities, and technical details. Communicating such information in a clear, understandable manner to diverse audiences, including policymakers, practitioners, researchers, and the public, can be challenging.

The JRLOS Focus in the NSDS4 Future

The sector will do the following during the NSDS4 implementation:

- Enhancing the data collection methods and tools by upgrading and maintaining the systems of administrative data in JRLOS
- Improving technical and soft skills of staff in charge of collecting, analysing JRLOS data and dissemination of related statistical information.
- Improving operational processes, and institutional frameworks is crucial for the smooth functioning of the justice sector. This will be pursued.
- Strengthening the coordination mechanism for the JRLO-SSS.

2.4.11 Private Sector Development and Youth Employment (PSDYE) Sector Statistical System (PSDYE-SSS)

Profile of PSDYE-SSS

The private sector development is coordinated by MINICOM. Youth employment is coordinated by MINIYOUTH. Other institutions are also part of the sector. They include the Ministry of Public Service (MIFOTRA), Ministry of Youth and Culture, Ministry of Gender, and Family Promotion (MIGEPROF), Rwanda Development Board (RDB), National Youth Council (NYC), National Industrial Research and Development Agency (NIRDA), Rwanda Revenue Authority (RRA), Rwanda Cooperative Agency (RCA), Rwanda Cooperation Initiative (RCI), Rwanda Standards Board (RSB) and the Rwanda Inspectorate and Consumer Protection Authority (RICA).

Investing in the **PSDYE-SSS** is very important considering the role this sector plays in job creation, especially for youth employment, economic growth, and development. The private sector development in Rwanda significantly contributes to youth employment by actively engaging in youth skills development programs, providing training, and creating job opportunities for young people.

The PSDYE-SSS data demand and supply

In this context, statistical information on the various aspects of their contribution to economic growth is essential and needs to be enhanced.

- Statistical information related to the number of Micro, Small, and Medium Enterprises (MSMEs) and the way that they are engaged in various economic activities, including their contribution to job creation is not only a need, but also a must.
- They will include jobs creation, productivity, investment in innovation, technology, and infrastructure, and the overall contribution to the country's economic growth.

The list of the key sector indicators is presented in annex 11.

The PSDYE-SSS Assessment Findings

The assessment shows that the total number of indicators in PSDYE to be used in NSDS4 period is 57 allocated to national, regional, continental, and global development programs. Out of these 57 indicators, it is realised that 36 indicators will come from administrative records, while 21 indicators will come from surveys and censuses that will be conducted by NISR, including the EC and the Integrated Business Enterprise Survey (IBES).

Administrative data in the sector of PSDYE

This sector has several reporting systems that can be used to generate administrative data and official statistics across institutions that operate in the sector. The main ones are the Business Registry MIS, eCargo tracking, Cooperative Management Information System (CMIS), etc.

Key challenges faced by the PSDYE.

The following are challenges faced by the PSDYE-SSS:

- Integration of administrative data systems: These systems are not integrated to facilitate the data generation and transformation into official statistics.
- Coordination: Coordinating various sources of data, especially the administrative records is complex. The complexity is rooted in data-sharing agreements, standardizing definitions, and classifications of statistics in the sector, and implementing data integration processes.
- Data Privacy and Confidentiality: Data confidentiality is a critical concern in the private sector. Private sector entities hold sensitive business information that can compromise their competitive advantages or infringe existing legal obligations. This creates challenges of data access.

The following are the strategic orientations of the Sector in NSDS4:

- Strengthening the administrative data systems in the sector: The sector should identify all relevant administrative data sources and establish procedures to integrate and harmonize them to produce statistics pertaining to private sector and youth development.
- Capacity building: Enhancing required capabilities for data processing, data analysis and data dissemination at institutional level by investing in infrastructure, software tools and human resources.
- Leveraging the ICT development to produce statistics: Integrating big data analytics to support traditional methods of official statistics.
- Enhancing the Coordination mechanisms for the PSDYE-SSS: Creating a dedicated coordination body or committee - a Technical Working Group (TWG) - comprising of representatives from relevant government agencies, private sector federation, and other stakeholders. The main objective of the TWG will be to oversee the production and dissemination of statistics in the private sector, as well as their quality.

2.4.12 The Social Protection Sector Statistical System (SPSSS)

The profile of SPSSS

The **SPSSS** is coordinated by the MINALOC. The following are institutions/agencies that are affiliated to the sector: LODA, RSSB, MINUBUMWE, NCDA, MINAGRI, MIGEPROF, MIFOTRA, MINEMA, MINIYOUTH, MoH, NCPD, NRS, RAB, RDRC.

The **SPSSS** is responsible for data collection, data processing, data analysis, and dissemination of statistics that are related to various aspects ofgt **social protection programs** and initiatives. In addition, it is responsible to use the same data to address society risks faced by individuals and households such as poverty, gender, vulnerability, and diseases.

The **SPSSS** encompasses a wide range of policies and programs, including social assistance (**such as cash transfers, food assistance, and social services**), social insurance (**such as pensions, unemployment benefits, and health insurance**), and labour market programs (**such as employment services and vocational training**).

The SPSSS data demand and supply

Statistics generated by this sector are essential for evidence-based policy formulation and decision making, program design, resource allocation, and M&E of social protection initiatives. These statistics are used also for a better understanding of

social risks, vulnerabilities, and the effectiveness of interventions and efforts that aim at reducing poverty and improve living conditions of individuals and households.

The SPSSS Assessment Findings

Sector assessment revealed that a total number of indicators in **SPSSS** to be used in NSDS4 period is 30 allocated to national, regional, continental, and global development programs. Out of these 30 indicators, about 26 indicators will come from administrative records, while 4 indicators will come from surveys and censuses that will be conducted by NISR.

Administrative data in the SPSSS

The sector has many reporting systems that can be used to generate administrative data and official statistics. The main Management Information Systems (MIS) used by the sector are the MEIS by LODA, Social Registry Information System (SRIS) by MINALOC, etc. However, these systems need to be integrated to facilitate the data generation and transformation into official statistics. In this sector key indicators are given in annex 12.

At district levels, the SPSSS has a department supervised by a Director of Social Development Unit (DSDU), and at sector level, there is a Social Protection Officer (SPO).

Key SPSSS Challenges

The sector has a few challenges or weaknesses that include:

- Complexity of social protection programs: Collecting and integrating data from diverse social protection programs is challenging. This is because social protection involves a wide range of programs and interventions, each one having its own objectives, target populations, and implementation mechanisms.
- Coordination and Harmonization: The SPSSS consists of different agencies and stakeholders that are involved in several social protection aspects. This makes it difficult for the sector system to coordinate and harmonize data collection, processing, and analysis. This leads to duplication of efforts, inconsistencies in data, and difficulties in aggregating information for a comprehensive analysis.
- Data Quality and Timeliness: It is a challenge for the sector system to ensure that the data demanded and supplied meet the desired quality and is released on time. There are delays in data collection through administrative records systems, data processing, and reporting. In addition, incomplete or inaccurate data can compromise the effectiveness of program evaluation, evidence-based policy formulation and decision-making. However, if data aspects are well managed the problem of data unavailability in the sector it will be solved.

The SPSSS will focus on the following during the NSDS4 implementation period:

- In collaboration with NISR, the sector will produce statistics of VUP.
- The sector will maintain and upgrade systems of administrative statistics.
- The sector will strengthen technical and soft skills for the statistical system.
- Establish mechanisms for the coordination of the entire sector system.

2.4.13 The Sport & Culture Sector Statistical System (SCSSS)

The Profile of the SCSSS

The **SCSSS** is at its infancy stages of development. Currently, the administrative records systems do not exist, which makes it difficult to establish statistical system. The only sources available for data related to the sports and culture issues are the population and housing censuses, and other surveys conducted by NISR. Other sources of data can provide useful statistics such as data on infrastructures that can be used for instance, to provide data on sports play fields including arenas and stadiums.

However, there are several initiatives that aim at developing robust and sustainable statistical system in the sector. Capacity Building Plans will be designed to train the sector personnel responsible for administration and management of statistics on the development of sector M&E framework and new MIS. Furthermore, plans are underway to develop and strengthen sector programs, guidelines, and policies related to intellectual property rights.

In addition, there are concerted efforts **to improve maintenance and archiving of administrative records through introduction of digitisation and ICT interventions**. Finally, implementation of the above initiatives should ensure they are strongly aligned to the NSDS4 programs on modernization and transformation of the NSS in general.

The SCSSS Assessment Findings

Assessment of SCSSS showed that the total number of indicators related to the sector in NSDS4 period is 44 allocated to national, regional, continental, and global development programs. All these indicators will be produced through administrative records within the sector. The list of indicators in the sector and their sources is attached as annex 13.

Key challenges of the SCSSS

The following are key sector challenges:

- Lack of methods and standards for the collection and analysis of sport and culture data.
- Insufficiency of human resources with relevant skills for data collection, data analysis and publication of statistics on sports and culture .
- Stakeholders are not aware about the importance of statistics on sport and culture and the sector contribution to the development of other sectors.

The following are focus areas of the sector in the next five years:

- Coordination: Establishing rigorous mechanism to coordinate all institutions involved in the SCSSS; engaging relevant stakeholders, such as sports federations, cultural institutions, athletes, artists, and policymakers.
- Capacity building: Train statisticians, researchers, and data analysts in sports and culture-specific methodologies, foster a culture of data literacy among sports and cultural organizations as well as associations, and other stakeholders involved in data collection, analysis, and dissemination.
- Enhance data collection and data analysis: Establish data collection, standardized methods, framework that covers various aspects of sports and culture. This includes participation rates, performance metrics, cultural events attendance, and economic contributions.
- Increase awareness and advocacy: Raise awareness about the importance of statistical data in shaping sports and cultural policies; advocate for increased investment in data production and use of statistical information for evidence-based policy formulation and decision making for the development of sport and culture sector and its contribution to the country social economic development.

2.4.14 The Transport Sector Statistical System (TSSS)

The Profile of the TSSS

The TSSS works on the data collection, data processing, data analysis, dissemination and use of statistics related to the various modes of transportation, including roads, air, and water transport. Transport statistical information plays a vital role in M&E of status and performance, and evidence-based decision making and policy formulation in the transportation industry and related sectors.

The transport sector is coordinated by the Ministry of Infrastructure (MININFRA). The following are institutions and agencies that are affiliated to the Transport Sector: RTDA, RNP, RCCA, REMA and RURA.

The TSSS data demand and supply

The TSSS covers indicators in the following sub sectors:

Transport Infrastructure and facilities: Different data on the length of roads by types (tarmacked, paved, and not paved), airports and ports, capacity, and conditions of these facilities.

- Freight and passenger traffic: This includes statistics on the movement of goods and people by different transportation modes, such as the volume and costs of freight transported by road, air, or water, and the number of passengers carried by various transportation modes.
- Vehicle registration and fleet composition: Statistics on the number and types of vehicles registered, including cars, trucks, buses, motorcycles, ships, and aircraft, as well as their age, fuel efficiency, carrying capacity, and emission levels.
- Safety and accidents: statistical information on transportation-related accidents, injuries, and fatalities.
- Transport energy consumption: Statistical information on the energy consumption.
- Transport gas emissions: Statistical information on the greenhouse gas emissions associated with transportation modes. These statistics are crucial for evidence-based policy formulation and decision making that aims at environment protection.
- Employment and labour force: Statistics on the workforce involved in the transportation sector, including employment levels, wages, and occupational categories.
- Financial and economic indicators: Statistics on the economic performance of the transport sector, such as investments and contributions to the overall Gross Domestic Product (GDP).

The TSSS Assessment Findings

Transport sector assessment report narrates that the total number of indicators from the sector to be used in NSDS4's five-year period is 47 allocated to national, regional, continental, and global development programs. Out of these 47 indicators, 45 indicators will come from administrative records, while 2 indicators will come from surveys and censuses conducted by NISR. These are mainly the EICV and National Accounts (NA).

Administrative data in Transport Sector

The administrative data in the TSSS include data of transport regulation that deals mainly with road transportation of persons and goods using buses, minibuses, taxi cabs, car rental, motorcycles, trucks among other means of transportation. It deals also with inland waterways transportation of persons and goods using vessels. Driving school buses are also among the regulated services.

This strategy report provides information on road and inland waterway transportation of persons and goods, driving schools, and freight forwarders. These administrative data are provided by RURA18.

Administrative data in the transport sector also include data on transport infrastructure that deals with roads' construction and conditions, road safety, etc. These data are produced and availed by the RTDA19. In TSSS, key indicators are given in annex 14.

Key challenges of the TSSS

The following are challenges faced by the TSSS:

- Complexity and diversity of the transport sector: The transport sector encompasses a wide range of activities, including passenger and freight transportation, infrastructure development, vehicle manufacturing, and logistics operations. Capturing the diverse and dynamic nature of the transport sector, including new technologies, business models, and emerging trends, is getting more challenging for statistical systems. Different definitions, classifications, and

18 RURA, Statistics in Transport, https://rura.rw/fileadmin/Documents/transport/statistics/STATISTICS_IN_TRANSPORT_SECTOR_T_AS_OF_SECOND_QUARTER_OF_2022.pdf

19 RTDA Annual report, https://www.rtda.gov.rw/fileadmin/templates/publications/RTDA_Annual_report_2020-2021.pdf

methodologies used by various organizations and agencies can hinder data comparability and integration efforts.

- Data integration and harmonization: The transport sector involves multiple modes of transportation such as road, air, and water, each with its own set of data sources and collection methods. Integrating and harmonizing data from these different sources is a complex and challenging task.
- Cross border statistics: Transportation activities often involve cross-border movements of goods and people, making it difficult to accurately capture and attribute data to specific countries or regions.

The TSSS Focus on the Future of NSDS4

The sector will focus on the following during the implementation of NSDS4.

- Strengthening the Coordination mechanisms to the challenges of the TSSS: All institutions involved in the transport sector need to coordinate their efforts in collecting, processing, and disseminating transport data. They include establishment of clear roles, responsibilities, and data-sharing policies among these institutions. This will help to avoid duplication of efforts and ensure consistency in data collection and reporting.
- Institutional and human resource capacity building: This will be done for the collection, analysis, and dissemination of transport statistics by institutions the sector.

2.4.15 The Urbanization and Rural Settlement Sector Statistical System (URSSS)

The Profile of the URSSS

The URSSS is responsible for organizing the collection, processing, analysis, and dissemination of data and statistics related to the patterns, trends, and dynamics of urban and rural areas. This system plays a vital role in understanding the challenges, opportunities, and implications associated with the growth of urban centers and the development of rural settlements.

The sector is coordinated by the Ministry of Infrastructure (MINIFRA). It comprises other institutions, mainly the Rwanda Housing Authority (RHA), Rwanda Transport Development Agency (RTDA), Water and Sanitation Authority (EWSA), LODA and MINALOC. Responsibility for urban management is at district government level.

The Sector data demand and supply

The following are sub systems that contribute to a better understanding of the sector and the related evidence-based policy formulation and decision making:

- Population distribution and dynamics: Population statistics for instance size, distribution, and demographic characteristics, etc. Also demanded and produced is information on urbanization rates, the proportion of the population living in urban areas, and related data.
- Urban and rural infrastructure: Statistics on the availability, quality, and accessibility of infrastructure in urban and rural areas such as housing, transport facilitations, water and sanitation, energy, and communication networks.
- Land use and urban planning: Information on land use patterns, zoning regulations, and urban planning practices, including the preservation of green spaces.
- Economic activities and employment: Statistics on economic activities distribution (such as industries, services, and agriculture, across urban and rural areas), employment patterns, income levels, and livelihood opportunities in urban and rural settlements.
- Public spaces: Availability and management of public spaces, recreational areas, and cultural heritage sites in urban and rural areas.
- Environmental and sustainability indicators: Information on urban and rural environmental challenges, such as air pollution, waste management, water quality, and the impact of climate change.
- Social and cultural aspects: Statistics on access to education, healthcare, and other social services in urban and rural

areas. Data on cultural diversity, community cohesion, and the preservation of traditional lifestyles and practices in rural settlements.

- Urban governance and policy: Information on urban governance structures, including planning, management, and decision-making processes. Data on the implementation and impact of policies and programs related to urban development, rural revitalization, and regional integration.
- Data on the adoption of sustainable practices: Information needed and supplied on green infrastructure, renewable energy sources, and resource efficiency measures.

The URSSS oversees all issues related to urban and rural development. An overlap of responsibilities exists between the sector and various other government institutions. Also, sectoral measures are overseen through the respective line Ministries and a uniform and coordinated implementation at local level is needed.

The URSSS Assessment Findings

The sector assessment report shows that the total number of indicators in URSSS to be produced in NSDS4 period is 35 allocated to national, regional, continental, and global development programs. Out of these 35 indicators, it is realised that 29 indicators will come from administrative records, while 6 indicators will come from surveys and censuses that will be conducted by NISR, mainly the EICV.

The administrative data on URSSS

The URSSS generates administrative data of granted building permits, disaggregated by district, sex, and age. This data is managed and organized through Building Permits Management Information System (BPMIS). However, the system needs to be upgraded to generate the number of building permits that have been executed. It is proposed that statistics desk or post at Rwanda Housing Authority (RHA) should be established that will be responsible for compiling data on urbanization and rural settlement.

The list of indicators that will be produced through NSDS4 is annexed 15.

Key challenges of the URSSS: The following are challenges of the URSSS:

- Coordination among stakeholders: Effective coordination and data sharing among various government agencies, local authorities, and stakeholders involved in urban and rural development is a challenge in Rwanda. Overcoming institutional silos and ensuring consistent data collection methodologies and harmonized definitions can be problematic.
- Limited resources and capacity: The system faces resource constraints in terms of human, financial, and technological capacities to maintain a comprehensive statistical system.

The sector will focus on the following during the implementation of NSDS4.

- Data collection: Collaborate with NISR to collect and disseminate urbanization and rural settlement related statistics through surveys and censuses; invest in administrative data systems for the sector; BDA and DS will also be used to support other sources of data.
- Capacity building programs: Conducting trainings for the staff in charge of data management in the URSSS.
- Strengthening the coordination mechanisms for the URSSS: All institutions involved in URSSS need to coordinate their efforts in collecting, processing, and disseminating the sector data. They include establishment of clear roles, responsibilities, and data-sharing policies among these institutions. This will help to avoid duplication of efforts and ensure consistency in data collection and reporting.
- Integration of spatial data: Incorporating spatial data, such as satellite imagery and geographic information systems (GIS), into the statistical system can be resource-intensive and may require specialized expertise that may currently be limited in Rwanda.

2.4.15 Water, Sanitation, and Hygiene (WATSAN) Sector Statistical System (WATSAN-SSS)

The Profile of the WATSAN-SSS

The WATSAN-SSS involves a comprehensive data collection, analysis, and reporting mechanisms to monitor and evaluate various indicators at household and facilities' levels including access to clean water, sanitation facilities, and hygiene practices.

This sector is responsible to monitor progress towards national, regional, continental, and global development programs such as National Statistical System (NST), RV2050, and SDG for targets that are related to water, sanitation, and hygiene.

The WATSAN-SSS is coordinated by the MINIFRA with the following institutions and agencies affiliated to it: WASAC, MINEDUC, MINISANTE, MoE, Districts.

The WATSAN-SSS data demand and supply

In the **WATSAN-SSS**, various types of data are collected, analysed, and published to assess the availability, accessibility, and quality of water and sanitation services, which is captured in annex 16. These data include:

- Water supply statistics: including statistical information related to the access and use of sources of water for consumption and its quality. They may include piped systems, rivers, lakes, groundwater, and data on water treatment and distribution systems.
- Sanitation statistics: including statistical information concerning the availability and use of sanitation facilities, including toilets, latrines, and sewage systems. This may include information on the types of sanitation facilities available, their coverage, usage rates, and access to improved sanitation facilities.
- Hygiene statistics: including statistical information related to hygiene practices and behaviours, such as handwashing with soap, menstrual hygiene management, and general hygiene education and awareness. This may include surveys or assessments of hygiene practices in households, schools, healthcare facilities, and communities.
- Health statistics: including statistical information on water-related diseases and health outcomes, such as diarrheal diseases, waterborne illnesses, and hygiene-related infections. This may include epidemiological data collected from healthcare facilities, community health surveys, and studies on the impact of water and sanitation interventions on public health.
- Infrastructure statistics: including statistical information on the infrastructure and facilities related to water supply and sanitation, including data on water treatment plants, distribution networks, sewage systems, and sanitation infrastructure. This may include data on the condition, capacity, and coverage of infrastructure assets.
- Financial statistics: including statistical information on the financing and investment in the water and sanitation sector, including budget allocations, expenditure patterns, funding sources, and financial sustainability indicators. This may include data on public sector spending, donor funding, user fees, and tariffs for water and sanitation services.
- Policy and governance statistics: including statistical information on policies, regulations, and governance structures related to the water and sanitation sector, including legal frameworks, institutional arrangements, and stakeholder engagement mechanisms. This may include data on policy implementation, compliance, and accountability mechanisms.

The WATSAN-SSS Assessment Findings

In terms of indicators, an assessment showed that the total number of indicators in **WATSAN-SSS** to be used in NSDS4 period is 30 allocated to national, regional, continental, and global development programs. Out of these 30 indicators, it is realised that 26 indicators will come from administrative records, while 4 indicators will come from surveys and censuses that will be conducted by NISR. These are mainly the EICV, the RDHS and the RPHC.

Administrative data in WATSAN-SSS

The **WATSAN-SSS** possesses diverse ways of generating administrative data that can be transformed into official statistics. The main one is the WASH Management Information System (WASH-MIS) that is used to collect data in the sector up to district level.

Another system includes the WASAC Management Information System (WASAC-MIS) that generates administrative data related to water production and water consumption in the country. Most of the WATSAN administrative data are published through the Annual Statistical Yearbook produced and published by NISR.

However, more efforts are needed to ensure the best quality of administrative data in WATSAN sector. These efforts include regular training programs of data clerks at all levels, strong supervision mechanisms for data flows. The current WASH-MIS system needs to be modernized and transformed to make it more robust in data capturing using electronic gadgets such as smartphones or tablets.

At district levels, the WATSAN has a WASH Officers under the Vice Mayor in charge of economic development. According to the new structure of WASAC, there will be also a WASAC staff at district level that will contribute to the development of administrative data in WATSAN sector.

Key Challenges of the WATSAN-SSS

The following are challenges of the **WATSAN-SSS**:

- Data gaps and quality issues of WATSAN at household level: The statistics in the WATSAN-SSS come from surveys and censuses conducted by the NISR. However, these statistics are updated every three years (EICV) and every five years (RDHS), and ten years (Population and Housing Census).
- Data gaps and quality issues of WATSAN data at public facilities level: For the WATSAN at facilities level, there is the possibility to collect related data through reporting systems in the sector. However, the administrative data systems need to be integrated to facilitate the comprehensive data analysis.
- Coordination and data sharing: Effective coordination and data sharing among various government agencies, NGOs, and other stakeholders involved in WASH programs can be difficult, leading to fragmented and duplicative data collection efforts.

The sector will focus on the following in NSDS4:

- The WATSAN sector will collaborate with NISR to update WATSAN data through surveys and censuses.
- The WATSAN will maintain the WASH-MIS to produce good quality WASH administrative data by implementing robust data quality control mechanisms (such as data validation rules and automated error checks), automating data capture from service delivery points, and integrating data from various sources.
- The WATSAN-SSS will enhance technical and soft skills of staff in charge of WATSAN statistics.
- The WATSAN will strengthen coordination mechanisms and knowledge sharing between all players in WATSAN-SSS.

One overarching challenge observed in all sectors was a lack of established department of statistics at ministerial level, and at institutions which are affiliated to the ministries. Mostt of the challenges identified in individual sectors relate directly to said absence of a statistics department. Without such department, statistical planning and resourcing, data production, management and dissemination becomes difficult. This underscores the need for every public institution in Rwanda to have a statistics department or unit.

As the coordinator of NSS, the NISR will strongly advocate for the establishment of statistics department/unit in every public institution in Rwanda and provide statistical capacity building opportunities to sectors in the context of NSDS4 implementation (see pillar III).

2.4.16 Public Financial Management Sector Statistical System (PFM-SSS)

a) Profile of the Public Financial Management-Sector Statistical System (SSS)

The Public Financial Management (PFM) Sector Statistical System (SSS) in Rwanda is a structured framework responsible for the collection, analysis, and dissemination of financial data to support economic planning, policy-making, and governance. It encompasses various institutions, including the Ministry of Finance and Economic Planning (MINECOFIN), the National

Institute of Statistics of Rwanda (NISR), the Rwanda Revenue Authority (RRA), and the Office of the Auditor General (OAG), among others. The system is designed to enhance transparency, accountability, and efficiency in the management of public resources.

b) Public Financial Management Data Demand and Supply

Data Demand:

- Government agencies require financial data for budgeting, expenditure tracking, and policy formulation.
- Development partners and donors use the data to assess fiscal performance and guide funding decisions.
- The private sector and investors seek macroeconomic and fiscal indicators for investment planning.
- Civil society organizations and academia require data for research, advocacy, and governance monitoring.

Data Supply:

- Administrative data from MINECOFIN, RRA, and other public finance institutions.
- National surveys and reports generated by NISR.
- Financial statements and audit reports from OAG.
- Budget execution and performance reports from the Rwanda Public Procurement Authority (RPPA).
- Revenue collection and expenditure tracking databases.

c) Public Financial Management-SSS Assessment Findings

- Strengths: Rwanda has a well-organized public financial management system with strong institutional frameworks and technological advancements in data collection and reporting.
- Weaknesses: There are gaps in data integration, limited accessibility of real-time financial data, and inconsistencies in financial reporting across different entities.
- Opportunities: Growing adoption of digital platforms for financial management presents opportunities for improved data accuracy and timeliness.
- Threats: Cybersecurity risks and potential data inconsistencies due to different data collection methodologies.

d) List of Indicators in the Public Financial Management-Sector Statistical System

- National budget allocation and execution rates
- Government revenue collection (tax and non-tax revenue)
- Public debt levels and debt sustainability indicators
- Public expenditure by sector and economic classification
- Budget deficit/surplus trends
- Procurement performance and efficiency
- Public investment and capital spending trends
- Audit compliance and financial accountability indicators

e) Administrative Data in Public Financial Management-SSS

- Tax revenue and taxpayer compliance data from RRA
- Budget execution and expenditure reports from MINECOFIN
- Public procurement data from RPPA
- Financial audits and compliance reports from OAG
- Government payroll and human resource expenditure data

f) Key Challenges of the PFM-SSS

- Data Fragmentation: Lack of integration between different financial management systems.
- Limited Capacity: Some institutions face human resource and technical limitations in data analysis and interpretation.
- Data Quality Issues: Inconsistencies and delays in reporting financial data.
- Cybersecurity Threats: Risks associated with digital financial management systems.
- Limited Public Access: Some financial data is not readily available for public scrutiny.

g) Key Strategic Objectives to Strengthen the Public Financial Management-Sector Statistical System (SSS) (July 2024 – June 2029)

- Enhance Data Integration and Interoperability: Develop and implement a unified financial data management system across government institutions.
- Improve Data Accuracy and Timeliness: Strengthen reporting frameworks and automate financial data collection processes.
- Capacity Building: Provide training and technical assistance to financial management personnel to enhance data literacy.
- Strengthen Data Security: Implement robust cybersecurity measures to protect financial data integrity.
- Promote Transparency and Public Access: Establish open data platforms for public access to key financial information.
- Enhance Performance Monitoring: Introduce real-time financial tracking mechanisms to improve accountability and efficiency.
- Foster Collaboration: Strengthen partnerships between government agencies, development partners, and research institutions to improve data utilization for policy-making.

2.5. The NSS Coordination

Given that there are many producers of official data in the country, it is crucial that they are well coordinated. Indeed, statistical coordination is an important characteristic of a properly functioning NSS. NISR is mandated by the Law N° 45/2013 of 16/06/2013 on the organization of statistical activities in Rwanda to coordinate the NSS. Such coordination has also been recently emphasized by the Presidential Order published in Official Gazette n° Special of 03/08/2023.

Statistical coordination aims to achieve mutual support and synergy among data producers, avoid duplication of effort and production of conflicting data, rationalize use of available resources for statistics and achieve data quality.

There two types of Statistical coordination: (1) Inter institutional coordination which aims to break "silo mentality", (2) Technical coordination which aims to standardize main concepts, definitions, and classifications used in the NSS.

The NSS coordination is primarily carried out by the NISR through the NSDS and other means as can be seen below:

2.5.1 The NSS coordination through authorization to conduct Surveys.

According to Article 11 of the Law N° 45/2013 of 16/06/2013 on the organization of statistical activities in Rwanda, the Survey Visa approval process is an important and critical element of NSS coordination under NISR responsibilities. This process serves as a gateway for researchers, whether they are from government entities, private institutions, higher learning institutions and research centers, non-governmental organizations, etc. to undertake statistical surveys at the national level or within specific provinces.

To get a visa, a researcher or institution is advised to submit a formal application. fEnsuring an efficient, accessible, and reliable surveys visa services is paramount for promoting robust research and data collection in Rwanda. However, the process of survey visa approval presents gaps and challenges and needs to be modernized and transformed. In this context, in line with the overall government policy of service digitalization, the process of surveys visa can be integrated into Irembo services. In our pursuit of improving the survey visa approval process, NISR recognizes the transformative potential of digital solutions,

and it is possible to strategically leveraging the IREMBO platform to modernize and transform the way applicants' access and engage with visa approval services. This initiative aims at simplifying the process but also promotes transparency, accessibility, and efficiency, aligning with our commitment to advancing high-quality statistical research in Rwanda.

2.5.2 Capacity building programs for NSS member institutions

Training programs: NISR offers trainings across NSS members (Central and local government staff, civil society organizations, media, academia, youth volunteers, children, etc.) that aim at strengthening technical and soft skills for statistical processes. Capacity building programs cover not only the traditional methods of data collection, but also the use of emerging technologies for data generation, data processing and data analysis, such as BDA and DST. Through the NSDS3 implementation, partnerships have played a vital role in strengthening technical and soft skills among NISR and other NSS members. The NISR Training Centre: The NISR-TC was launched in May 2019 and has been the backbone of capacity building transformation. It also houses the national Data Science Campus (DSC) and the UN Regional Hub of Big Data (UN-RHBD). It hosts various statistical events including capacity building programs at national, regional, continental, and global levels.

Challenges and Weaknesses of Capacity Building Programs: Even though NISR has managed to train a good number of data producers and users, there is a need to continue strengthening capacity programs for above mentioned categories of stakeholders to ensure production of timely and good quality data as well as its appropriate use for evidence-based planning policy formulation, and decision making.

The following are challenges faced by the capacity building programs:

- Technical staff turnover at NISR and NSS institutions: it has been observed that after capacitating the staff, some resigned from their positions in search of green pastures. This creates a skills gap at NISR and across the NSS.
- There is huge demand for various skills and technology for data production and use.
- Insufficient space and infrastructure for training demands: Demands for the NISR Training Centre (TC) use are growing. It is being realized that NISR TC doesn't have enough space to host all training programs, space for restaurant and parking. In addition, technology facilities at NISR TC are outdated, and this makes it difficult to deliver high-quality training programs.
- Limited staff at the NISR TC: The NISR TC has a small team of two personnel who must manage everything from trainings scheduling to logistics and administration. The team at NISR TC needs to be increased and include staff in charge of communication, and one staff member in charge of logistics and asset management.

The NISR will focus on the following in NSDS4:

To respond to the capacity **building** needs, NISR will focus on the following during the NSDS4 period:

- establish a dedicated unit for NSS coordination and capacity building at NISR.
- develop annual capacity building programs for various data users and data producers including MDAs, civil society, private sector, academicians, etc.
- enhance collaboration with other institutions to develop adequate and relevant capacity building programs that are required to strengthen soft and technical skills for official statistics.
- modernize the NISR TC infrastructure, equipment, and technologies.
- strengthen the team that manages the NISR TC.
- strengthen the NISR TC communication and awareness that allows NISR to interact with stakeholders and the public.
- establish at NISR a dedicated room for people with visual impairments for inclusiveness in data production and use with appropriate technology.

Legal instruments for statistical activities and data management

One instrument among others that facilitate NISR to coordinate the NSS, is the law n° 45/2013 of 16/06/2013 on the organization of statistical activities in Rwanda that provides how the NSS should be coordinated. This law gives NISR the mandate of coordinating the NSS (Article 8) and clarifies the composition of NSS (Article 9). In particular, the Law highlights one way of coordinating statistical activities in Rwanda. Article 11 stipulates that NISR must issue prior approval to any researcher aiming to collect data that covers a whole Province or City of Kigali.

In October 2021, the Law No 058/2021 of 13/10/2021 aiming at protecting personal data and ensuring privacy of individuals in Rwanda was published and it contributes significantly to the NSS coordination. In summary, the law provides and emphasizes that processing personal data should comply with the data protection requirements that are stipulated in Article 5.

In this context, the law emphasizes the implementation of appropriate measures including "anonymization and/or pseudonymization" to strengthen personal data protection. In fact, the law prohibits processing personal data in a way that can facilitate the identification of individuals.

It also authorizes longer storage periods of personal data for statistical purposes, subject to implementation of adequate technical and organizational measures. There is a need to sensitize data producers and users and the public in general about the legal framework for statistical activities in Rwanda.

Coordination tools

A number of coordination tools have been developed and are in use. These include:

- NSDS4: NSDS is the overarching framework for statistical coordination and national statistical development.
- **Generic Statistical Business Process Model (GSBPM)**: It provides a standard framework and harmonised terminology to help data producer in the country to modernise their statistical production processes, as well as to share methods and components.
- **Code of Practice**: The Statistics Code of Practice sets professional and ethical standards for developing, producing and disseminating official statistics in the country. It builds on the UN Fundamental Principles of Official Statistics and establishes common standards that all data producers need to observe to ensure production and dissemination of coherent and trustworthy official statistics. It also helps to promote the application of best international statistical principles, methods and practices by all data producers to enhance the quality of their products and services. As such, the code of practice is a good tool for technical coordination and for maintaining quality in official statistics. The NISR is in the process of preparing a statistics Code of Practice for the NSS
- National Data Quality Assurance Framework: A Data Quality Assurance (DQA) framework within NSS is a structured approach to ensuring that statistical data is accurate, consistent, complete, reliable, and timely across all stages of its production and dissemination. As a coordination tool, it fosters alignment among national statistical offices, line ministries, and other data-producing entities by establishing shared standards, governance mechanisms, and processes for data quality. This framework enhances collaboration and consistency in data collection, validation, and reporting, ensuring that all stakeholders adhere to internationally recognized principles and methodologies. The current National Data Quality Assurance framework was prepared by NISR in 2014.
- The compendium of main concepts and classification: The compendium of main concepts and classifications refers to a comprehensive and standardized repository of definitions, methodologies, frameworks, and classification systems that guide the production, analysis, and dissemination of statistical data. It serves as a foundational reference for NSS, ensuring consistency, comparability, and coherence in statistical activities across sectors and geographies. By aligning with international standards, such as those set by the United Nations Statistical Commission, the compendium ensures that official statistics meet global benchmarks for quality, relevance, and transparency. The current compendium was prepared by NISR in collaboration with other NSS member institutions and was released for use in 2016.

2.6 The UN Regional Hub for Big Data for Africa Coordination

2.6.1 The Profile of the UN-RHBD

The United Nations Regional Hub for Big Data (UN-RHBD) and Data Science (DS) in Africa was established in 2019 under the partnership between the United Nations Economic Commission for Africa (UNECA), the National Institute of Statistics of Rwanda (NISR), and the UN Department of Economic and Social Affairs (UNDESA).

The hub's main objectives are to facilitate cross-border collaboration on projects that apply big data and data science to complement traditional methods of official statistics, provide knowledge on newly developed methodologies, algorithms, and tools, and offer trainings in the use of big data and data science for the community of official statisticians in Africa.

The hub will achieve its objectives through four work streams: advocacy, research, capability building, and contributing to the United Nations Global Platform.

Key challenges of the regional hub:

The following are major challenges of the regional hub:

- Issues of data sharing: Accessing and sharing data sources can be challenging due to different reasons such as data ownership, personal protection and privacy worries, business interests, etc. The big data hub is requested to initiate data-sharing agreements with institutions and propose legal frameworks. However, this can take a long time, a situation that can slow down the speed of use of huge sources of data.
- Issues of interoperability and standardization of Big Data Sources: Big data sources are heterogeneous with different formats, structures, and standards. These differences in data sources make it difficult to analyze data from various sources. The big data hub is tasked to promote interoperability of data sources and propose common standards to facilitate the exchange of data between the hub and institutions possessing data.
- Issues of stakeholder engagement at national, regional, continental, and global levels: Engaging many stakeholders is very crucial for an effective and sustainable use of different sources of big data to support other methods of official statistics. It helps to ensure that the use of big data aligns with the goals and needs of relevant parties. The big data hub is tasked to look for adequate strategies to enhance stakeholders' engagement for the use of big data sources.

These strategies include establishment of a clear governance framework outlining processes and roles related to data access and use, especially in the context of official statistics; establishing and maintaining communication channels for information sharing about the use of big data sources and related methodologies, as well as the related statistical insights; etc.

The focus of the Hub in NSDS4

The following are major activities and projects towards operationalizing the UN Regional Hub for Big Data and Data Science for Africa:

- Setting up a local team dedicated to operationalizing the hub. The team will include technical experts, projects coordinator, communication manager and Regional Hub Liaison Person based at UNECA Office, Kigali.
- Organizing capacity building workshops, retreats, study tours, and webinars on a regular basis.
- Promoting cross-border collaborative projects.
- Conducting regular sessions to evaluate the hub operationalization including annual physical Hub Steering Committee meetings.
- Enhancing the stakeholders' awareness through various events including showcasing successful use cases of big data sources that have positive impacts on decision-making processes.
- Establishing strategic partnerships at national, regional, continental, and global level for the use of Big Data sources for official statistics.

2.7 Lessons learnt

From the assessment of the NSS, some key lessons emerged especially in areas of statistical awareness, statistical coordination, resource mobilization, role of IT, user's needs and capacity enhancement.

- The demand for data continues to increase in scope, quantity, quality, timeliness and disaggregation including by gender and other classifications. Currently data demand outstrips data supply that is constrained by, among other things, inadequate resources and statistical capacity. The lesson here is to mobilize more resources through statistical advocacy at national and international level.
- The GoR is alive to its responsibility to ensure production and availability of official statistics as part of the national development infrastructure (soft infrastructure) and "public good" that is critical to national development.
- Stakeholder engagement is a critical aspect of statistical work, ensuring that data producers effectively meet the needs and expectations of various stakeholders. It is, therefore, important to institutionalize stakeholder engagements by providing platforms for engagement in constructive dialogue on statistical issues, priorities, and challenges.
- NSS Statistical advocacy is essential for creating statistical literacy but needs to be supported by good statistical data and information as well as champions to achieve desired results.
- Statistical planning helps to review and reengineer NSSs to achieve improved performance and to set long-term objectives for improved performance and prioritized use of limited resources among different activities. It is important not to wait for an NSDS to end before designing a follow-up NSDS. NISR has taken this lesson to heart.
- In addition to the NSDS, each sector should have a well-designed sector-specific Statistical Plan to guide the development of sector statistics. NISR should champion and support the design of these plans.
- The NSDS provides holistic and coordinated approach to planning for national statistical development. The NSDS process should be participatory and inclusive, with key stakeholders consulted to ensure ownership of both the process and the product.
- The GoR and many institutions in the country (in public, private, civil society and research and academic) appreciate the importance and immense benefits that derive from use of data to support policies, plans, decision-making and reporting on development progress at every level. This is critical as it spurs demand for data and supports the sustainability of the NSS.
- Statistical coordination is critical to national statistical development. It essential to achieve mutual support, cost effectiveness, reduce duplication of effort, avoid production of conflicting data and improve data quality. It should, therefore, be promoted as much as possible.
- Leveraging advances in ICT will enable innovation and transformation, timeliness, reduction in data production costs and achieve quality in official statistics.
- There are now non-traditional data sources which can be leveraged to improve official statistics. These include Big Data arising from the increasing use of the Internet of Things (connected devices), social media, mobile applications, web scraping, satellite imagery, etc. This however requires adequate computational capacities and related technical skills.
- Focusing on improving administrative data is critical as the NSS will remain weak and non-responsive to user needs to the extent that administrative data sources are not improved.
- Continuous capacity enhancement is a critical factor in the improvement of statistics in the country. In fact this should be part of the battery of strategies to transform and modernize the NSS.
- Partnerships and international cooperation are essential to the process of modernization and transformation of official statistics in the country.

2.8 Strengths, Weaknesses, Opportunities and Threats (SWOT analysis)

A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was used to summarize the above assessment by:

- identifying and evaluating controllable activities in functional areas among NSS institutions which are performed especially well (strengths) or poorly (weaknesses), and
- identifying and evaluating trends and events which are external to the system and largely beyond its control - Political, Economic, Social, Technological, Environmental and Legal (PESTEL) - but which could benefit (opportunities) or harm (threats) the system.

The idea was to build on identified strengths, eliminate weaknesses, take advantage of strengths and mitigate identified threats to the NSS. The analysis is summarized as shown in the following table below.

Table 3: SWOT Analysis

Strengths:	Weaknesses:
1. Ability to adhere to international statistical standards and practices, 2. The adoption of technology such as Computer-Assisted Personal Interviewing (CAPI) systems, mobile data collection tools and remote data access to ensure data security; 3. Existence of technical capacity and experience at NISR to design and implement large scale statistical operations like censuses and national surveys; 4. Capacity to effectively and implement the NSDS, 5. Effective Public Finance Management (Accountability) 6. Effective management of partnerships, 7. Infrastructure for statistical production and management, 8. Existence of a Statistical Training Centre.	• Limited skilled personnel in some areas of data collection, analysis, and advanced statistical methodologies, which could affect the timely production of high-quality statistics; • Inadequate statistical coordination among MDAs; • Absence of a national integrated data repository (warehouse); • Inadequate Communication of statistics including insufficient use of local language; • Absence of statistics department/units in many MDAs; • Inadequate statistical advocacy and awareness activities and initiatives
Opportunities:	**Threats:**
1. Existence of a clear legal framework for statistics; 2. Existence of political will to statistics (enabling national policy frameworks); 3. The growing availability of technology for big data analytics, artificial intelligence, and data visualization, 4. Strong partnerships with international organizations, donors, and development partners that provide technical and financial support for various statistical activities; 5. Availability of International frameworks, methodologies, standards, etc; 6. Existence of a national data centre	• Financial dependency on external donors and insufficient domestic funding for statistical activities; • The rapid evolution of data needs in response to emerging challenges (e.g., climate change, pandemics) might outpace the current capacity of the NSS to collect, process, and analyze new types of data. • Increasing concerns around data privacy, confidentiality, and cybersecurity risks can affect data collection efforts and public trust in the NSS; • The growing demand for skilled data professionals in both the public and private sectors could lead to difficulties in retaining highly skilled statisticians within the NSS; • Inadequate ability for the NSS to meet the ever-increasing demand for high-quality data from different stakeholders (government, private sector, development partners, etc).

2.9 Emerging issues and NSDS4 strategic priorities

2.9.1 Emerging issues

In view of the changing statistical landscape, countries need to transform and modernize their NSSs to deal with new and ever-increasing data demand, the emerging data ecosystem, new data sources, innovative technologies, etc. In this context, the NSDS4 needs to address the emerging issues including the following:

- there are new data entrants into the data space among which are data suppliers, data producers, data users. This is leading to the extension of the traditional NSS to the emerging data ecosystem of which the NSS is part – this requires review of the Statistics Act to bring these new players on board;
- NISR functions to go beyond statistical coordination of the NSS and also include data stewardship for the NSS which may also require a review of the current statistics act;

- the need to transform and modernize the NSS to make it more agile, resilient, efficient, and responsive to unprecedented widening, increasing and evolving and diverse data user needs. A document, "Roadmap for the Transformation and Modernization of Official Statistics in Africa"[20], which was produced by the UNECA and endorsed by the Statistical Commission for Africa in October, 2024 provides principles and priorities for the said transformation and modernization of official statistics. These principles and priorities need to be mainstreamed into NSDS4;
- new opportunities presented by emerging technologies and expanding use of digital and mobile communications – emergence of data science, Artificial Intelligence (AI) and Machine Learning (ML) which are defining the 4th industrial revolution;
- the need to improve the quantity and quality of administrative data in various sectors to meet both the data needs in the sector and external data users of the sector statistics. This needs to go hand in hand with ensuring systems and data interoperability as well as data integration;
- increasing partnerships for development data that is creating opportunities for funding, knowledge sharing, networks, etc.

2.10 NSDS4 Strategic priorities

The fourth NSDS aims at transforming and modernizing the official statistical processes within NSS. In this context, the following will be the NSDS4 strategic priorities:

- Strengthening data supply (production, dissemination) and use of official statistics for evidence-based decision making and policy formulation.
- Value addition to the existing data sources by strengthening national capabilities for BDA including satellite imageries, machine learning, AI, etc.
- Improving the coordination and communication of data within the NSS.
- Strengthening transformation and modernization in the use of technologies for data quality control.
- Ensuring institutional sustainability by enhancing technical and soft skills, knowledge management and learning culture.
- Leveraging existing opportunities for partnerships, collaboration, and cooperation to strengthen supply and use of official statistics.

2.11 Critical success factors for NSDS4

The following were identified as critical success factors and were built into the NSDS4:

- A strong data culture of perceived data value and use in driving national development policy and budget processes. This is about continued support to statistics and their use by GoR especially for policy and decision making.
- Institutionalized and consistent stakeholder engagements underpinned by appropriate advocacy messages.
- Continued political support and commitment to statistics by the GoR as a "public good".
- Continued and effective leadership of NISR;
- Continued effective leadership and coordination of the NSS by the NISR;
- Ensuring that statistical processes are sophisticated, automated, standardized, and optimized, agile and in constant state of innovation and improvement;
- improved working environment for statistics departments/units in MDAs (where there exist) and advocating for their establishment where they don't exist;
- Improved morale for statistical personnel;
- Forming strategic multi-stakeholder partnerships for development data that is creating opportunities for capacity building, funding, knowledge sharing and networks;
- Periodic monitoring, evaluation and reporting on strategy activities, outputs, outcomes and impacts.

20 UNECA, Strategic Toolkit for the Transformation and Modernization of National Statistical Systems in Africa, E/ECA/STATCOM/9/2024/15/Rev.1, Addis Ababa, 23 September 2024

Chapter 3:

Strategic framework

This chapter presents the NSDS4 strategic foundations (vision, mission and core values) and strategic direction (pillars, strategic objectives and projects/activities).

3.1 NSDS4 Vision

NSS is the leading producer and supplier of official statistics in the region and is among the best globally.

3.2. NSDS4 Mission

Our mission is to modernize and transform the NSS to respond to data demands efficiently and effectively to enhance the use of official statistics.

In the context of NSDS4, modernization and transformation will involve the process of updating and/or replacing predecessor tools, software, hardware, and technologies that were used during the preceding implementation of NSDSs. This will improve their functionality by making them more effective and efficient. The modernization involving replacement will affect the statistical business tools not limited to tablets, smartphones, GPS devices, computers, and servers for data collection, storage, and organization.

Furthermore, software modernization will cover updating, upgrading and acquisition of new statistical packages for data analysis and to produce various statistics. This will lead to the transformations in the way data output and statistical products are disseminated via high-speed internet, world-class web-based tools, and social media platforms.

3.3 NSDS4 Core Values

In performing their duties both NSS and NISR specifically should instill and embrace and abide to the following core values. [a] Integrity [b] collaboration [c] innovative ideas [d] adhering to the highest professional standards, and [e] Providing values for money.

In implementation of any of the programs, projects, and activities outlined in this strategy document the staff, consultants, volunteers, interns, and part-timers such as the data enumerators must be well informed on how they should respect these core values. The entire management of NISR and NSS in general should encourage and reward innovative behavior, creativity and problem solving mentality among the personnel.

3.4 NSDS4 Pillars and Strategic Objectives

3.4.1 NSDS4 pillars

The NSDS4 pillars which are mutually supportive, are closely aligned to those of the preceding NSDS3 are adopted from the Program-For-Result (P4R) initiative that NISR is implementing in collaboration with the World Bank (WB). This aimed at maintaining the momentum and continuity gained from designing and implementing the past three rounds of NSDS. The pillars are:

Pillar 1: Produce data to support evidence-based policy formulation and decision-making

Pillar 2: Lead a national data revolution to scale data uptake and impact

Pillar 3: Build capability across the NSS to promote data uptake and use

Pillar 4: Strengthen the enabling environment for sustainable statistical development

The pillars are aligned with the international statistical frameworks – regional, continental and global.The following table shows how the NSDS4 pillars are aligned to RSDSIII goals, SHaSA2 strategic themes and the CTGAP2.0 key areas, which are the overarching regional, continental and international statistical development frameworks respectively.

Table 4: NSDS4 pillars against RSDSIII goals, SHaSA strategic themes and CTGAP 2.0 key areas

NSDS4 pillars against RSDSIII goals	
RSDSIII goals	**NSDS4 *Strategic Objectives***
Enhanced institutional development of the Community Statistical System	Strengthen the enabling environment for sustainable statistical developmentt
Strengthened capacity for production and use of harmonized and quality community statistics	Better insights from data for policy and decision-making Better policies and decisions
Increased data uptake, use and impact in the region	Lead a national data revolution to scale data uptake and impact Build capability across the NSS to promote data uptake and use
NSDS4 pillars against SHaSA2 strategic themes	
SHaSA2 strategic themes	NSDS4 Strategic Objectives
Produce quality statistics for Africa	Produce data to support evidence-based policy formulation and decision-making
Coordinate the production of quality statistics for Africa	Strengthen the enabling environment for sustainable statistical development
Develop sustainable institutional capacities of the African statistical system	Strengthen the enabling environment for sustainable statistical development
Promote a culture of quality policy and decision-making	Build capability across the NSS to promote data uptake and use
Coordination and strategic leadership on data for sustainable development	Strengthen the enabling environment for sustainable statistical development
Innovation and modernization of the NSSs	Lead a national data revolution to scale data uptake and impact
NSDS4 pillars against CTGP2.0 key areas	
CTGAP2.0 key areas	NSDS4 Strategic Objectives
Innovation and Modernization for Better and More Inclusive Data and Statistics	Lead a national data revolution to scale data uptake and impact
Use and Value of Data and Statistics for Better Decision Making	Produce data to support evidence-based policy formulation and decision-making
Institutional Leadership in Building Trust, Protection, and Ethics of Data and Statistics	Strengthen the enabling environment for sustainable statistical development
Partnerships to Mobilize Resources and Coordinate Efforts to Develop Data and Statistical Capacity	Strengthen the enabling environment for sustainable statistical development

It can be seen from the table that the three RSDSIII goals, four SHaSA2 themes and the four key areas of the CTGAP2.0 are covered by various NSDS4 pillars. To that extent, therefore, implementation of the NSDS4 will contribute toward attainment of objectives of the RSDSIII, SHaSA2 and the CTGAP2.0.

3.4.2 NSDS4 strategic objectives

Under the four NSDS4 pillars, 12 strategic objectives (SOs) - three under each pillar- have been identified. These SOs are SMART, viz. Specific, Measurable, Achievable, Relevant and Time-bound. The pillars and SOs are summarized in the following table:

Table 5: NSDS4 pillars and strategic objectives

Pillars and strategic objectives	
Pillar 1: Produce data to support evidence-based policy formulation and decision-making	
SO1	Sustain and enhance core data production at NISR
SO2	Enrich and expand data supply across the NSS
SO3	Leverage NSS data products to lead Imihigo indicator selection and performance evaluation
Pillar 2: Lead a national data revolution to scale data uptake and impact	
SO4	Harmonise best practices in data governance across the NSS:
SO5	Enable data openness, integration, and interoperability through enhanced legal and policy frameworks
SO6	Equip and operationalise a public Data Science Campus to facilitate data access and promote innovation
Pillar 3: Build capability across the NSS to promote data uptake and use	

SO7	Expand strategic communication and advocacy to increase data uptake and statistical literacy
SO8	Enhance capacity for data production and statistical analysis
SO9	Introduce new methods in data science and analytics
Pillar 4: Strengthen the enabling environment for sustainable statistical development	
SO10	Build and sustain a workforce to support sustainable statistical development
SO11	Investing in Operational Infrastructure, Assets, and Logistics for Sustainable Statistical Development
SO12	Mobilise resources and strategic partnerships to support sustainable statistical development

The ensuing sub-sections describe the SOs and provide a definite list of priority programs, projects, and activities[21] to be implemented. A total of 218 activities will be implemented under NSDS4 in the next five years. Of these, a total of 124 activities (annex 21) will be carried out by NISR as part of their mandate while 94 activities (annex 22) will be carried out by MDAs. The lists are comprehensive and include estimated costs for carrying out those activities in the next five years of the NSDS4. In addition, the disaggregation of the activities led to a well detailed list of indicators[22] that will permit collecting granular and metadata geared towards improving the ***production and dissemination*** of official statistics for the GoR by the entire NSS ecosystem.

NISR Activities, Programs and Projects in NSDS4

Analysis of annex 21 related to NISR's activities indicates that pillar I has a total of 39 activities distributed among its SO1, SO2, and SO3 containing 29, 6 and 4 activities respectively. Pillar II has a total of 37 activities - 3 activities under SO4, 1 activity under SO5 and 33 activities under SO6.

Furthermore, pillar III has the least number of activities totaling 16 only with 11 activities under SO7, 4 activities under SO8 and 1 activity under SO9. Finally, pillar IV has 32 activities distributed among the three SOs as follows: 4 activities under SO10, 21 activities under SO11, and 7 activities under SO12. NSDS4 will, therefore, implement a total of 124 programs, projects, and activities through NISR as part of its mandate.

MDAs' activities

The 94 MDAs' statistics activities that are planned for implementation under NSDS4 coordination mechanism are presented in annex 22. Of these statistical activities, 73 or 77.7% are under SO1 and SO2; 11 activities are under SO4; 3 activities are each under SO9 and SO10; and 2 activities under both SO7 and SO8. It can also be observed that in the MDAs, about six SOs do not have activities at all as these are covered under NISR's responsibility. They are SOs 3, 5, 6, 11 and 12.

Pillar I: Produce data to support evidence-based policy formulation and decision-making

This Pillar expands on the work from the previous strategies to make data supply more responsive to various demands at national, regional, continental, and global levels. This includes activities to enhance data production through surveys, censuses, and administrative data under the sector statistical plans, and strengthen NSS performance through Imihigo planning and evaluation.

The Pillar captures SOs 1-3. The SO1 focuses on official statistics produced and releases by NISR. SO2 captures the development of administrative systems and other NSS data products, while the SO3 covers NISR's leadership in Imihigo validation and evaluation phases.

- SO1: Sustain and enhance core data production at NISR: This strategic objective focuses on the production of statistical information through surveys and censuses that will be conducted by NISR through its Generic Statistical Business Process Model (GSBPM). In addition, NISR will use the updated technology to always control the quality during data collection. The strategic objective encompasses also other statistics from national accounts and administrative statistics compiled and published by NISR.
- SO2: Enrich and expand data supply across the NSS: This SO covers data production activities led and/or performed by

21 The word activities carry the same meaning as programs or projects or both and are all used interchangeably.

the MDAs, and Local Authorities (LAs) with a particular focus on national, regional, continental, and global development programs. These activities include improvement of the existing systems for administrative records such as CRVS, SDMS, and HMIS. In addition, this will include development of new systems and establishing of mechanisms that allow interoperability of different administrative data systems to facilitate holistic data analysis. Under the coordination of line ministries, sector statistical plans will play a vital role to implement SO2.

- SO3: Leverage NSS data products to lead Imihigo indicator selection and performance evaluation: Indicators for Imihigo will be derived from official statistics produced under SOs 1 and 2. Therefore, SO3 covers all NISR-led activities in Imihigo indicator validation and evaluation phases. During the validation phase, NISR will support the development of Imihigo indicators to ensure selected indicators meet SMART criteria and follow a logical sequence. The evaluation phases include mid-term (6-month) and final evaluations (12- month) for each GoR fiscal year.

Pillar II: Lead a national data revolution to scale data uptake and impact

Under this Pillar, NISR and other NSS member institutions will work together to establish adequate frameworks that facilitate and enrich Rwanda's data value chain and promote innovation. This includes Data Revolution Policy (DRP) interventions to expand access to data and technology, support ethical data use and apply novel methods to research and analysis in support of the public good.

Pillar II encompasses strategies that cover issues in data governance and management, including interventions to crowd-in big data and other non-traditional data sources, upgrade technology and improve systems. They also include initiatives that aim at developing policies, standards, and legal frameworks to support data sharing, integration and activities that will operationalize the NISR Data Science Campus (DSC) and the UN Regional Hub for Big Data.

SO4: Harmonise best practices in data governance across the NSS: This SO covers investments in IT infrastructure, systems, and legal instruments to support the transformation and modernization of statistical processes. The development of the national data portal will ensemble NSS data products into a single platform housed and maintained by NISR. Efforts to strengthen sector-level data governance, standards, and systems including MIS development shall together be captured in the sector statistical plans.

SO5: Enable data openness, integration, and interoperability through enhanced legal and policy frameworks: The SO5 responds to the existing needs for data openness and integration while protecting personal data and privacy and intellectual property rights. To that end, NISR and other NSS member institutions will work together to develop policies for data sharing across sectors.

SO6: Equip and operationalise a public Data Science Campus to facilitate data access and promote innovation: This SO focuses on investments to operationalize the DSC and the UN-RHBD at NISR. This involves equipping both the campus and the hub with adequate technology, software, staffing and the hub with relevant skills, experiences, as well as developing new work streams in training and research respectively. In addition, the DSC and the UN-RHBD will expand partnerships and advocacy initiatives to familiarize members of the NSS and the wider public with the data revolution.

Pillar III: Build capability across the NSS to promote data uptake and use

This Pillar captures various initiatives that aim at strengthening technical and soft skills for all NSS member institutions. They include training programs in statistical methods and data science, programme management, leadership, and communication.

This pillar also integrates various initiatives for public statistical literacy, awareness, and advocacy to increase data access and use of official statistics for different purposes including evidence-based decision making and policy formulation, planning and M&E, research and academic purposes, journalistic products, etc.

- SO7: Expand strategic communication and advocacy to increase data uptake and statistical literacy: The SO7 activities will aim at improving the dissemination of statistical information and their access to increase the use of statistics for evidence-based decision making and policy formulation, planning and M&E at individual and institutional levels, up to the lowest administrative entity. This includes modernizing data portals and publications, as well as new initiatives to reach a wider audience and strengthen the Communities of Practice (CoPs). SO7 also establishes capacity building plan

(CBP) and trainings in data literacy, programme management and communication to strengthen NSS dissemination channels.

- Enhance capacity for data production and statistical analysis: Activities under SO8 focus on CBP and initiatives to strengthen knowledge management and learning within NSS member institutions, facilitated by the modernization of the NISR Training Centre. On one hand, the CBP will provide practical trainings and other forms of training including on job training for all components of the GSBPM . On the other hand, initiatives to strengthen knowledge management and learning will create adequate environment and conditions that enhance knowledge-sharing culture and develop a centralized repository to store and organize institutional knowledge such as the best practices, lessons learned, and expert insights. As part of the capacity building, NSDS4 focuses on recruiting, training, deploying, and enhancing the employability of "professional interns". It aims to develop a pipeline of skilled professionals by offering structured internships to recent graduates in statistics, economics, ICT, Data Science, and related fields. Through hands-on experience, mentorship, and targeted training, interns will gain various competencies in data production, data management, data analysis, data dissemination, and use of statistical information for evidence based decision-making. NSDS4 further supports long-term career development through capacity-building workshops, career counseling, and job placement efforts, ensuring a sustainable increase in skilled personnel within the NSS sectors.
- SO9: Introduce new methods in data science and analytics: Activities under this strategic objective focus on the adoption of new methods in data science and analytics within the National Statistical System (NSS) to improve the quality, relevance, and timeliness of official statistics. It emphasizes methodological rigor, transparency, data quality, and ethical standards, ensuring compliance with international statistical guidelines. It encourages innovations by integrating machine learning, big data analytics, artificial intelligence, and advanced statistical models, among others, while promoting data integration from diverse sources. A phased approach (comprising research, pilot testing, evaluation, and integration) will guide adoption of new methods, supported by capacity building and collaboration with national, regional, and global experts. Risk management, continuous monitoring, and adherence to privacy laws are essential to ensure reliability and trustworthiness. NSDS4 will be periodically reviewed to stay aligned with emerging trends in data science

Pillar IV: Strengthen the enabling environment for sustainable statistical development

Pillar IV outlines a suitable intervention that aim at offering staff adequate and conducive working environment for statistical activities. The following SOs under this Pillar focus on modernizing the NISR infrastructure and assets, as well as other operational logistics.

- SO10: Build and sustain a workforce to support sustainable statistical development: Activities under this SO focus on maintaining the highest-level of staff performance at NISR and other NSS member institutions including all operations for human resources management, improvements in staff retention mechanisms, internal capacity building for operational staff in areas of program and/or financial management to strengthen institutional performance.
- SO11: Investing in Operational Infrastructure, Assets, and Logistics for Sustainable Statistical Development: This objective focuses on modernizing infrastructure, assets, and equipment to enhance statistical development. As the government continues to digitalize its operations, official statistics will significantly benefit from these advancements. Therefore, SO11 prioritizes investments in technology, particularly software and hardware, to improve efficiency in data management and strengthen the overall statistical system.
- SO12: Mobilise resources and strategic partnerships to support sustainable statistical development: This SO focuses on efforts for NSS coordination, mobilizing financial resources and securing adequate technical supports through partnerships to execute all NSDS4 activities. Activities under SO12 also cover a substantial portion of the NISR SPIU portfolio, including M&E of NISR operations and sector plans' implementation.

Summary Analysis of the Pillars

This analysis of the four pillars with their twelve SOs attached to them underpins the implementation of the planned 218 total projects, programs, and activities for the NSDS4. The analysis also reveals that three SOs have the most activities namely **SO1 has 102, flowed by SO6 with 33 and then SO11 with 21 activities**.

This highlights the importance and priority activities of NSDS4 planned to enhance core data production at NISR including to equip and operationalise public DSC to facilitate data access and promote innovation and investing in operational infrastructure; and ensuring availability of sufficient assets, and logistics to support sustainable statistical development as NSS implements NSDS4.

Chapter 4:

NSDS4 implementation, monitoring and evaluation

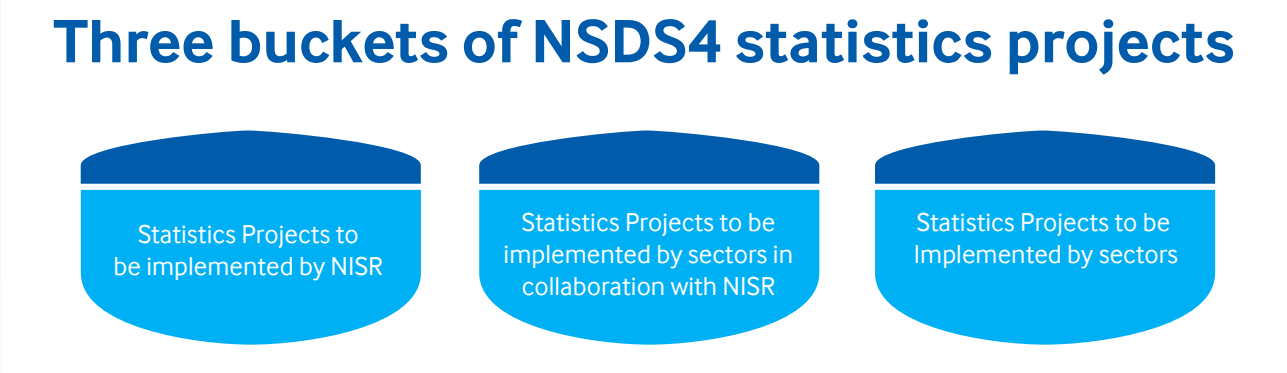
This chapter presents the last stage in the NSDS4 process - implementation, monitoring and evaluation. This is a critical stage of the NSDS4 process where the strategy is translated into action to: a) deliver the results, achieve purpose and contribute effectively to the strategy's overall objectives, b) manage the available resources efficiently, and c) monitor and report on progress to support performance management. It is, therefore, important that this stage is properly planned for.

4.1 Implementation

4.1.1 Buckets of NSDS4 statistics projects

Statistical projects that will be implemented in the period of 2024/25 – 2028/29 are classified into three groups as the following diagram shows:

Figure 6: Statistics projects in NSDS4



To achieve the NSDS4 objectives and targets, all NSS member institutions will work closely and in a coordinated way to ensure that the required resources are mobilized. Sectors are also advised to invest enough effort to coordinate statistical activities that will be implemented by their institutions.

Modern technologies can be leveraged for this purpose in addition to being used for data generation, -exchange and interoperability of administrative data systems within and across sectors.

Regular M&E of NSDS4 implementation at every sector is needed to make time adaptation according to new contexts and challenges.

4.1.2 Implementation Strategy

The NSDS4 will be implemented through annual action plans by NISR and sectors. Each institution is required to submit its annual statistical project budget estimates to NISR through MINECOFIN. The NSDS4 will also be implemented through institution performance contract framework that will help to mainstream the NSDS4 programs, projects, and activities in their institutional and individual performance contracts (Imihigo).

In implementing the current NSDS these four elements are fundamental:

- **Prioritization and sequencing of the activities**: NSDS4 respecting the **priority areas** articulated in sub-section 4.1 above NISR and NSS in implementing the planned activities shall **sequence the process** to capitalize on the gains made from the preceding procedures, **synergizing,** and **interoperability** of strategic actions in **different systems** and their **related functions**. This will propel and steer the implementation of NSDS4 to achieve the desired objectives within the specified period.
- **NISR coordination and management functions***:* NISR's capabilities in coordinating the NSS and managing the production and dissemination of official statistics in Rwanda has **grown exponentially** since its inception and when the first NSDS1 came into force in the years 2006. **Technical advancement** for instance, is manifested in the *DRP, the establishment BDA and Data Science Directorate, initialization of the NISR Training Center (NTC), Big Data Campus (BDC), and the UN-RHBD, application of AIs, and reinforcing the application of both IT and ICT* operations in the production and dissemination of official statistics.
- In addition, the growth in scope is vindicated by figure ** above showing a positive correlation between the expansion of the activities to be carried out and the increase in **financial budget** needed to implement vast activities in NSDS4.

Overall, the budget remains unstable over the 20 years of NSDS 1 to 4 with budgetary fluctuations attributed to the changes in the **exchange rates** and the **turbulent global financial markets**. The budget portrays upward and down swings during the period between 2009 to 2029. For instance,

- NSDS1 budget was USD 80,587,523, while
- NSDS2 budget was USD 63,340,000, and then
- NSDS3 budget stood at USD 105,896,213[23] respectively with their five implementation periods ending at NSDS1 2009, NSDS2 2014, and NSDS3 2024.
- The current NSDS4 requires USD 102,534,015 to carry-out the planned activities for the next five years ending June 2029.

NISR Senior Management is fully cognizant of this requirement where it must consider **value-for-money procurement**, reinforce **prudence in accounting** and **institute strict financial internal controls.** All these efforts will ensure NSDS4 is implemented **economically, efficiently, and effectively**.

- **Upgrading of infrastructures, software, and hardware***:* NSDS4 shall continue the good work of the preceding 3 rounds of NSDSs mainly **acquisition, upgrading, introducing new technologies** to transform the AI and Data Science Technics, and Machines Learning, refurbishing the NISR Training Center, Big Data Campus, and UN-RHBD operationalization. Aside, it will work on **server upgrade, websites, portals, and pages redesign, and data dashboard development** for real time data dissemination.

  At the same time, it will focus on **data transformation tools and gadgets** such as smartphones, tablets, computers, GIS imageries, as well as data analysis packages including STATA, Python, CsPro, SPSS, and Excel. The Training Centre will require improved internet infrastructure, regular maintenance, and upgrading of the existing Local Area Network (LAN), with the needed software, hardware, and server expanded capacity. These shall strengthen, facilitate, and improve processes and procedures in data collection, analysis, and dissemination of the resulting statistics.

- **Strengthening the legal Framework***:* In context of NSDS4 implementation, NISR will initiate a process of reviewing the existing legislations to establish gaps that affect the implementation of the NSDS4. This `points to the need to strengthen the current NISR organizational structure by introducing the services of **legal officer**. For example, regarding **privacy issues** mentioned elsewhere in this document and the application of the **administrative data as well as metadata** as part of the SOs of the NSDS 3 and 4 will require dedicated services of an in-house legal officer.

  These four elements are among the **key fundamentals** of implementing NSDS4 that are intertwined into the four pillars, which in turn are disaggregated into twelve SOs. Nonetheless, in addition they should form the basis to carry-out the earmarked activities, programs, and projects destined to achieving the objectivess of the NSDS4 as elaborated in its **vision, mission, and core values**.

4.2 Highlights of NSDS4 implementation

NSDS4 implementation will involve the following:

- Awareness creation
- Institutional arrangements
- Enhance human resource capabilities
- Resource mobilization
- Partnerships and international cooperation
- Communication and knowledge management

4.2.1 Awareness creation

It is often the case that strategies are designed but not adequately communicated to stakeholders including the workforce. It

23 This high budget could be a result of the national census that was due this period.

is important, therefore, that stakeholders in the NSS including policy and decision-makers get educated about and understand and share the vision and mission of the NSDS4, the strategies for achieving them and how their individual actions and those of others will contribute to the success of the NSDS4.

To do this effectively, an extensive communication programme among stakeholders in the NSS will be developed and implemented beginning with statistical staff of the NISR and in sectors. It will then be rolled out to cover policy and decision-makers in the public, private and civil society sectors and among cooperating partners to not only create awareness about the NSDS4 but also secure buy-in and support for NSDS4 implementation. This will be particularly important in sectors where statistics is not recognized as a priority.

4.2.2 Institutional arrangements

Legal and ethical requirements

Implementation of NSDS4 will ensure compliance with legal and ethical requirements. In this context, NISR and other NSS member institutions shall adhere to the relevant laws such as procurement legislations, NISR service charter, human resources management rules and other regulations that can affect the NSDS4 implementation. This requires establishing compliance frameworks, conducting regular and specific risk assessments, establishing and implementing internal controls, and providing regular training to employees that are involved in complying with rules and regulations. Provision has been made in the strategic framework to review and bring up-to-date the National Statistics Act especially in light of the urge to transit from the traditional NSS to emerging data ecosystem and its implications. Other things that can be included in the review of the current statistics act include the following: Establishment of a statistics department/unit in every MDA, establishment of a national statistics fund as recommended by the African Charter on Statistics which was endorsed by African Heads of States and Governments in 2009, the expanded mandate of NISR (coordinating the emerging data ecosystem, imihigo evaluation, hosting the UN Regional Hub for Big Data and Data Science for Africa, etc), and strengthening the NISR to be able to discharge its mandate as recommended by the Cape Town Global Action Plan for Sustainable Development Data[24] and the UNECA Roadmap for the Transformation and Modernization of Official Statistics in Africa[25].

Governance structures

The successful implementation of NSDS4 will also depend on the effective governance structures that promote coordination, professionalism, accountability, transparency, and ethical conduct throughout the statistical processes as expounded in section 3.3 on core values. This includes relevant involvement of the NSDS Steering Committee that brings together all sector activities indicated in the Second National Strategy for Transformation (NST2).

The NSDS Steering Committee is responsible for guiding and overseeing the implementation of the NSDS. It comprises representatives from various stakeholder institutions, including NISR, line ministries, government agencies responsible for producing and using statistics, academia and research institutions, private sector organizations, civil society organizations, development partners, and international organizations.

The NSDS Steering Committee plays a crucial role in ensuring the successful implementation of the NSDS by providing high-level guidelines for the coordinated development of the NSS.

Its roles and responsibilities include:

- Providing strategic direction and oversight for NSDS implementation.
- Promoting coordination and collaboration among different data producers and users.
- Mobilizing resources (financial, human, and technical) for NSDS activities.
- Monitoring and evaluating NSDS progress.

24 UN Statistics Division, 2024

25 UNECA, Integrated Strategic Toolkit for the Roadmap for Transformation and Modernization of Official Statistics in Africa, Addis Ababa, 2024

- Advocating for the importance of statistics and the NSDS at the highest levels of government and society.
- Ensuring alignment of the NSDS with national development priorities and international statistical frameworks.
- Facilitating stakeholder engagement and fostering a culture of data use and evidence-based policy formulation and decision-making.

The NSDS Steering Committee meets every three months to review progress, address challenges, and make strategic decisions related to NSDS implementation.

Also critical will be the full commitment of the NISR Board of Directors, Sector and Technical Working Groups (STWG) that include the NSDS4 on their agenda.

NISR's organizational structure

Current structure

The successful implementation of NSDS4 will depend on the quality of NISR staff and how the core values outlined above are respected. It will also depend on how well the NISR organization structure is aligned to its responsibilities as provided for by the law that established it as cited elsewhere in this document.

The Board of Directors is the NISR's governing body. Above the Board of Directors is the MINECOFIN and immediately below it is the Office of the Director General (DG). The DG is supported by three offices, namely Corporate Services, SPIU and the Deputy Director General. These are the most senior management offices at NISR which will oversee the implementation of the NSDS4. These are assisted by 8 Heads of Directorates who drive the institute's vision and mission described in the preceding sub-sections.

In addition, NSDS4 comes with expanded responsibilities in terms of scope of activities, programs, and projects to be implemented in the next five years (coordinating the emerging data ecosystem, facilitating and hosting statistics and other government trainings programs, imihigo evaluation, hosting the UN regional Hub for Big Data and Data Science for Africa, etc.). Therefore, there is a need to strengthen NISR'S internal control function by strengthening the Internal Audit Office, legal office to advise NISR and NSS on the data related legislative issues, communication department/Unit to coordinate awareness creation and data uptake, NSS coordination including capacity building programs.

4.2.3 Enhance human resource capabilities

Knowledge and skills enhancement

To facilitate the development and sustainability of the NSS, there is a need to have enough number of statistical personnel with sufficient working knowledge, skills, working tools and conducive working environment within the NISR and other MDAs. Under NSDS4, regular training will be needed and conducted to strengthen technical and soft skills for all staff that are involved in statistical work. The emphasis in enhancing technical skills will be on data innovation including use of new data sources and capacity building especially in strategic areas of Data Science, Artificial Intelligence (AI) and Machine Learning (ML). Therefore, annual training and capacity building programs will be developed, implemented, and monitored. Knowledge and skills development is also one way of motivating staff.

Career progression

As Rwanda reinforces its position as a regional leader in data-driven decision-making and evidence-based policy, its National Institute of Statistics of Rwanda (NISR) must also have its internal systems as modern and performance-oriented. One of the key foundations of this transformation is a strategically aligned and well-designed career progression system that motivates staff, attracts the best, and ensures institutional excellence.

Currently, the absence of a well-defined career development system risks long-term capacity loss, staff motivation, and technical know-how sustainability. Filling this gap is not an administrative formality. It is a strategic imperative in direct alignment with Rwanda's national development agenda.

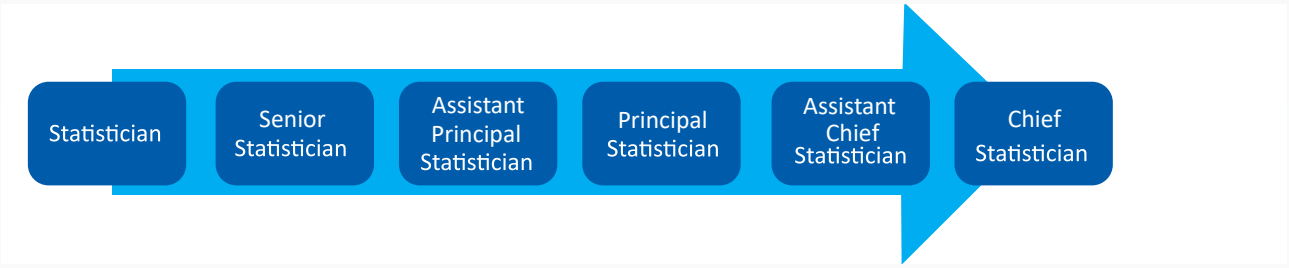
As part of NISR's human capital development vision under NSDS4, a two-track career progression model will be followed. The model will define two equally prestigious and rewarding tracks:

- Leadership & Management Track: For individuals with strong organizational, interpersonal, and strategic leadership skills, who are capable of leading teams and managing statistical programs in alignment with national and international standards and objectives.
- Technical & Research Expertise Track: A technical career track for those who excel in advanced analytics, statistical methodologies, and research innovation, which allows them to develop their technical capability without progressing into people management.

This structure acknowledges that not all talent is managerial, and that technical excellence needs to be rewarded and encouraged in its own right. Through the alignment of jobs with strengths and aspirations, NISR will have staff that is adaptable, motivated, and committed to producing high-quality statistical outputs.

In accordance with NSDS4, targeted advocacy, policy development, and institutional transformation will support the formalization of these tracks. Clear competency frameworks, performance standards, and individualized professional development plans will ensure career progression based on merit, specialization, and alignment with institutional goals.

Figure 7: Proposed professional career path for statisticians



There should be a post of Chief Statistician as the highest professional post at the NISR not Director which is administrative. A young statistician joining the NISR should aspire to become a Chief Statistician like in Universities young lectures aspire to become Professors and not School Deans and Departmental Heads. The post of Chief Statistician should be equivalent to that of a Professor in a University, To become a Chief Statistician, one must excel in their areas of work and be recognized by their peers in the country and abroad as authorities in their areas. It is expected that like a Professor at a University, a Chief Statistician will have strong academic background (e.g. a Ph.D degree), high professional and technical credentials and long accumulated experience in his/her area. Universities may from time to time invite a person at this level to review training programs, teach some specialized courses, present seminars and even supervise some student theses.

Continuing Professional Development

Continuing Professional Development (CPD) is a combination of approaches, ideas and techniques for continued learning throughout one's career. The broad aim of CPD is to keep up to date with new developments in the profession so that one can continue to grow and develop as a professional. In the context of CPD, statisticians will be encouraged to enhance their professionalism by attending training courses (some privately organized, doing analytical work, writing and publishing scientific papers (like other scientists do), and participating in seminars and conferences. In this connection, NISR will be organizing periodic professional statistical seminars to further promote professionalism in the NSS. Professionals from other NSS institutions will be invited and encouraged will be invited and encouraged to participate in these seminars.

In the same vein, professional statisticians will be encouraged to enroll as members of international statistical associations such as the International Statistics Institute (IAI), The Royal Statistical Society of UK, etc. These associations provide tremendous opportunities. Finally, statisticians in Rwanda will be encouraged to establish a National Statistical Association to promote interest of the statistical profession in the country. Once established, it should be ensured that the association thrives and serves its purpose. This has been mentioned because in many African countries where it has been established, the association has become inactive and ineffective.

4.2.4 Resource mobilization

The primary goal of resource mobilization is to ensure that the NSDS4 is well resourced to be able to implementing its identified activities effectively.

It is expected that the GoR in collaboration with Development Partners (DPs) will provide resources required to implement NSDS4 priorities. Support from DPs will be in context of shared strategic commitments to the country.

The African charter on statistics (2009) recommends the establishment of a national statistics fund to ensure availability of resources for statistical development in an adequate, predictable and sustainable manner. In addition, the Second Strategy for the Harmonization of Statistics in Africa (SHaSA2) that was adopted by the African Ministers of Finance and Development also urged African countries to establish such a fund. In fact SHaSA2 recommended allocation of 0.25% of the annual national budget to statistics. Advocacy will be carried out to ensure that commitments made by GoR as signatory to above documents are met.

4.2.5 Partnerships and international cooperation

Partnerships and international cooperation will be a driving force for the successful NSDS4 implementation. The following are the key focus areas that will be covered by partnerships and cooperation opportunities:

- Capacity building and knowledge exchange for the development of statistics in Africa: The desired partnerships shall focus and harness collaboration with NISR on strengthening technical and soft skills for the development and sustainability of the NSS.
- Development and harmonization of new statistical methodologies and standards: NISR and other agencies will collaborate with their partners including international organizations and NGOs with advanced level in BDA to develop and harmonize new statistical methodologies and standards that can support the traditional data sources.
- Advocacy and resource mobilization: In the next five years, NISR will enhance and consolidate the existing good relationships with various development partners to mobilize financial and technical support for purposes of national statistical development.
- Infrastructure and technology development: In this area, NISR will keep collaborating with regional and global partners on securing adequate infrastructure, including furniture, ICT tools and systems for all components of the Statistical Business Model (SBM) including data quality control, data management platforms, and dissemination tools.
- Sectoral statistics development: NISR will work with partners targeting specific sectors such as agriculture statistics, gender statistics, labor statistics, and economic statistics to establish Statistics Units/Departments and to also design sector-specific Statistical Plans anchored into the Sector Development Strategies. This will greatly facilitate improvements in administrative data which MDAs compile on an ongoing basis as a by-product of administrative operations.

4.2.6 Communication and knowledge management

Effective and efficient communication and knowledge management are crucial components of a well-coordinated NSS and will be critical for the implementation of NSDS4. Accordingly, the following aspects of communication and knowledge management will be handled during implementation of the NSDS4:

- Encourage documentation and archiving of case studies, success stories, and lessons learned from data governance initiatives within the NSS and beyond.
- Establish a centralized knowledge repository or data governance portal to document and share best practices, guidelines, templates, and other relevant resources.
- Implement knowledge-sharing platforms such as online forums, communities of practice, or collaborative workspaces, to facilitate the exchange of ideas, experiences, and lessons learned.
- Prepare and implement a Communication Strategy to streamline and coordinate how dissemination and release of information should be conducted.

4.3 NSDS4 monitoring and evaluation

NSDS4 implementation will be closely monitored especially with regard to its deadlines and ensuring production of quality deliverables. Such monitoring aims to:

- ensure that stated objectives are being achieved,
- track inputs, activities and outputs as per the established feedback mechanisms
- determine if implementation is on course or not,
- alert management on problems or potential problems before the situation becomes critical, and
- take corrective actions to ensure that performance conforms to Strategy or that the Strategy is revised in light of new experience.

The overall NSDS4 implementation will be monitored by the NISR under the support and coordination of the **NISR's Single Project Implementation Unit (SPIU)**. Results from monitoring shall be reported directly to the NISR senior management for action. In carrying out this exercise, SPIU will use the log frame (Annex 21) and the budget appended as Table 8 of this document as basic tools. The log frame provides performance indicators, baseline data, milestones and targets in the log frame.

NISR management will prepare forward and backward reviews and present them to the NISR Board of Directors and the NSDS4 Steering Committee on a quarterly basis. These bodies will serve as the supervisory bodies for the entire NSDS Monitoring, Evaluation and Learning (MEL) process, providing a mechanism for accountability.

In addition to internal processes for annual NSDS4 monitoring, two evaluations will be conducted. Firstly, is the **mid-term evaluation** to be conducted around FY2026/27 to gauge progress towards attaining the NSDS4 objectives and targets. The evaluation will make recommendations about what adjustments are required to improve the implementation of NSDS4 during the remainder period of its life.

The second is the **final evaluation** to be conducted at the end of FY2028/29 that will assess the extent of success or failure of NSDS4 performance. This will provide useful input for the design of the fifth round of NSDS (NSDS5). These evaluations will be conducted by an independent external party and submitted to the NISR Board of Directors and the NSDS4 Steering Committee for a review of current trends in NSS performance.

4.4 NSDS4 key assumptions and potential risks

The NSDS4 design logic is robust since it is based on the analysis of **NSS** and **NISR** current situation. However, no matter how carefully an NSDS is designed, **unforeseen** events may occur. Therefore, this sub-section outlines the key **assumptions and risks** that should be considered to ensure smooth and successful execution of the NSDS4.

Timely and efficient implementation of the NSDS4 **programs, projects,** and **activities** as well as the attainment of its intended **results** or **strategic objective (SO)** shall depend on the **coordination**, **trustfulness**, and **close relationship** with the **NSS ecosystem**, **NISR's Board of Directors**, **NISR Management**, **SPIU**, and particularly the **NISR's Directors**. The relations with primary data producers, suppliers, and users, as well as with the other target groups will also be extremely important.

4.4.1 Key Assumptions

Assumptions help us to see what might affect the execution of the NSDS4 and what must be put in place if NISR aims at achieving all the NSDS4 results, the purposes, and the overall objectives.

The following key assumptions underlie the successful implementation of the NSDS4:

Table 6: NSDS4 Implementation Assumptions

S/N	Assumptions
1	Decision makers and focal points within NSS and specifically NISR will remain committed to realizing the NSDS4's strategic objectives.
2	Availability of sustainable and sufficient resources to carry-out all the planned surveys, census, programs and projects in the NSDS4.
3	NISR and other NSS organizations can access modern and new technology as a tool and aid to data collection, processing, and analysis.
4	The effective implementation of the NSDS4 depends on the level of cooperation among NSS institutions. Good cooperation and effective communication within the entire NSS ecosystem and the NISR's management is crucial for the successful execution of the NSDS4.
5	NISR as a coordinator of the NSS will provide timely technical support to the data providers and suppliers to ensure smooth undertaking of surveys and census produced by NISR.
6	A strong commitment from NSS to adopt an open partnership approach, thus facilitating good collaboration with the data producers, suppliers, and users.
7	Partnerships with development partners in the country, region and internationally will be strengthened
8	Political stability continues to prevail in Rwanda at both national and interregional levels that could trigger some potential political challenges that may hamper the successful implementation of the NSDS4.
9	Comprehensive, consistent, and well-coordinated NISR's management approach on NSDS4 programs, project, and activities.
10	The hangover of both COVID-19 pandemic, internal conflict around Lake Kivu and international wars of Russia-Ukraine, and Israel-Palestine, do not negatively affect the execution of NSDS4 planned programs and activities.

4.4.2 Potential Risks

The future is always uncertain, and Risks are inevitable at most times. Due to their potential to have an adverse impact on project results, potential risks should be identified and mitigation measures provided to mitigate their impact. In contrast to the assumptions, risks are not purely external, but comprise both internal and external factors. We should therefore be prepared to address any potential risks using appropriate mitigation measures and have appropriate remedies should the risks materialize.

The table below identifies the potential risks to NSDS4 implementation and assesses the severity of their potential impact. It also presents mitigating measures. The risk assessment will be reviewed at least regularly during the NSDS4 life and factored into our management approach.

Table 7: Potential NSDS4 Risks – Probability/Impact and Mitigation

Risk	Probability/ Impact	Mitigation
Risks related to natural calamities and vagaries of weather (outbreak of pandemics, floods, mudslides, hurricanes, and the like)	High probability Medium impact	• Outbreak of pandemic such as the Covid-19 in the past 3 years. Rwanda has now established measures to combat pandemics like Covid- 19 and respects the World Health Organization (WHO) Global CODIV-19 protocol, including to minimize face to face events, observing limitations on the number of participants per meeting event, maintaining social distance, advance vaccination, etc. • The NSS is fully experienced with the different platforms and methodologies for holding meetings, large events, and focus groups sessions virtually. NISR has implemented numerous online events and workshops (up to 500 participants) and is very experienced in online facilitation. NISR applies a combination of online platforms, webinars and is a frequent user of online surveys and interactive tools. • The effects of global climate change and its ramifications in terms of floods and droughts, mudslide and hurricanes, and the related phenomena could significantly be lower due to Rwanda's preparedness towards these negative impacts- especially on the surveys and census in the remote and rural areas.
Civic unrest and violence destabilize the country, notably around the Lake Kivu area.	Medium Probability Low impact	• Rwandese have lived in this kind of situation over the years, and they have learned and developed coping mechanisms and strategies to circumvent this if it happens. This will therefore not hinder progress towards attainment of the NSDS4 goals and targeted results.
Fiduciary risk. Misuse of budgeted funds/ corruption; lack of accountability.	Low probability Low impact	This will be mitigated by: support to accountability mechanisms; design and implementation of an active monitoring strategy; implementation of audits and sequenced phased and/or output-based instalments to lower mismanagement of risks; strengthen, the internal controls by introducing the Internal Audit function proposed above

Risk	Probability/ Impact	Mitigation
Insufficient commitment by the NSS and NISR management to implement reforms with respect to sensitive and privacy NSDS4 data issues and special purpose-statistics.26	Medium probability High impact	• NISR should create awareness by explaining to the senior policy and decision makers the advantages of promoting use of quality, accessible and reliable data for planning, policy formulation, and decision making. • NISR should implement high-level coaching and mentoring of the DSMRP as part of capacity building initiatives about how to implement, monitor progress and evaluate the impact of the NSDS4. • Strict observance of legal provisions for data confidentiality and security including data anonymization 27 and/or pseudonymization28. • continuously create greater awareness especially among middle and junior staff about the importance of quality and accurate data.
Low stakeholder engagement and low awareness about importance of data to planning and decision-making (including on the cross-cutting issues)	High probability Low impact	• NISR as a coordinator of NSS should design and implement a comprehensive Advocacy Campaign for creating awareness among the NSS data producers, providers, suppliers, and users, about importance of data for policy formulation and decision making including on cross-cutting issues.
Risks related to information and data availability	Low probability Medium impact	• NISR is the competent authority for the production and dissemination of data, statistics and information on development and all agencies rely on them for their programming. NISR will coordinate and liaise closely with NSS as the primary source of information and national data. • This will be complimented by international agencies and NGOs working on data issues – WB, IMF, and PARIS21. • The NISR shall also liaise with the line and sector ministries, provincial and the constituencies for information and data related issues • The Central Bank of Rwanda, and MINECOFIN will also serve as a source of information and data on socio-economic, fiscal and financial data.
Risks related to unavailability of skills and low capacity of local authorities on data collection, management and analysis.	High probability Medium impact	• There has been good commitment from Rwanda to its continued cooperation with the Provincial governments that has seen excellent implementation of surveys and censuses. Further, there are already existing governance structures to support implementation of the NSDS4 comprising of development partners (DPs), government institutions and other stakeholders and which NISR will closely liaise with. • low capacity, a key component of the four rounds of NSDS concerns training and capacity building and n transfer of skills and knowledge, will be mitigated by engaging consultants and experts to build needed capacity for coordination and implementation of NSDS4 planned activities and programs.

4.5 NSDS4 Estimated budget

The total budget for implementing the NSDS4 for 5 years is is US$ 107,403,629 or an average of US$ 21,480,724 per year. Of the total budget, US$ 78,974,566 or 74% will fund activities at NISR while US$ 28,429,053 or 26% will fund activities in sectors (MDAs).

The lion's share of the budget amounting to 53% of total budget will be spent on Pillar 1: Production of statistics to support evidence-based decision making. This is obvious given that censuses and surveys, the main sources of data from NISR, are costly to undertake. The second expensive Pillar to implement is Pillar IV: Strengthening the enabling environment for sustainable statistical development which will take US$ 22,359,023 or 20.8%. Pillar III: Building statistical capability across the NSS to improve data uptake and use takes the least amount of the budget, amounting to 8.3%. The table 8 presents the budget estimates for the NSDS4 implementation by pillars.

26 For instance, vital and core statistics should be considered holistically.

27 Data anonymization is the process of protecting private or sensitive information by erasing or encrypting identifiers that connect an individual to stored data.

28 ***Data pseudonymization*** is the process of removing personal identifiers from data and replacing those identifiers with placeholder values. It is sometimes used for protecting personal privacy or improving data security.

Table 8: NSDS4 estimated budget

	Pillars & Strategic Objectives	NISR		NSS		Total	
		Frw	USD	Frw	USD	Frw	USD
Pillar I	**Produce statistics to support evidence-based decision making**	**59,662,143,933**	**45,893,957**	**14,873,517,218**	**11,441,167**	**74,535,661,151**	**57,335,124**
SO1	Sustain and enhance core data production at NISR	49,010,264,417	37,700,203		0	49,010,264,417	37,700,203
SO2	Enrich and expand data supply across the NSS	6,704,116,710	5,157,013	14,873,517,218	11,441,167	21,577,633,928	16,598,180
SO3	Leverage NSS data products to lead Imihigo indicator selection and performance evaluation	3,947,762,806	3,036,741		0	3,947,762,806	3,036,741
Pillar II	**Lead a national data revolution to deepen statistical impact**	**5,788,255,000**	**4,452,504**	**18,620,334,905**	**14,323,335**	**24,408,589,905**	**18,775,838**
SO4	Harmonize best practices in data governance across the NSS	8,575,000	6,596	18,620,334,905	14,323,335	18,628,909,905	14,329,931
SO5	Enable data openness, integration and interoperability through enhanced legal and policy frameworks	25,000,000	19,231		0	25,000,000	19,231
SO6	Equip and operationalize a public Data Science Campus to facilitate data access and promote innovation	5,754,680,000	4,426,677		0	5,754,680,000	4,426,677
Pillar III	**Build statistical capability across the NSS to improve data uptake and use**	**8,205,806,246**	**6,312,159**	**3,407,917,255**	**2,621,475**	**11,613,723,501**	**8,933,633**
SO7	Improve data uptake and statistical literacy through strategic communication, dissemination and advocacy	2,524,225,595	1,941,712	2,528,709,755	1,945,161	5,052,935,350	3,886,873
SO8	Enhance capacity for data management and statistical analysis	1,039,880,651	799,908	155,000,000	119,231	1,194,880,651	919,139
SO9	Introduce new methods and techniques in data science and analytics	4,641,700,000	3,570,538	724,207,500	557,083	5,365,907,500	4,127,621
Pillar IV	**Strengthen the enabling environment for sustainable statistical development**	**29,010,730,536**	**22,315,947**	**56,000,000**	**43,077**	**29,066,730,536**	**22,359,023**
SO10	Build and sustain a workforce to support sustainable statistical development	8,566,193,057	6,589,379	56,000,000	43,077	8,622,193,057	6,632,456
SO11	Invest in operational infrastructure, assets and logistics to support sustainable statistical development	19,993,476,679	15,379,597		0	19,993,476,679	15,379,597
SO12	Mobilize resources and strategic partnerships to support sustainable statistical development	451,060,800	346,970		0	451,060,800	346,970
	TOTAL	102,666,935,715	78,974,566	36,957,769,378	28,429,053	139,624,705,093	107,403,619

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Annex

Annex 1: List of main statistics to be produced by NISR and stakeholders

	Names	Data collection dates
1	Consumer Price Index (CPI) Survey	Every month
2	Producer Price Index (PPI) Survey	Every month
3	Trade Statistics	Every month
4	Index of Industrial Production (IIP)	Every month
5	Gross Domestic Product (GDP)	Every 3 months
6	Labor Force Survey (LFS)	Every 3 months
7	Seasonal Agricultural Survey (SAS)	[29]Every Season[30]
8	Integrated Business Enterprise Survey (IBES)	Every year
9	Statistical yearbook (SYB)	Every year
10	[31]Foreign Private Capital Census (FPC)[32]	Every Year
11	Agricultural Household Survey	To be implemented in 2026/2027
12	[33]Comprehensive Food Security and Vulnerability and Nutrition Analysis Survey (CFSVA)[34]	2025
13	Establishment Census (EC)	2026
14	FinScope Survey[35]	2028
15	Integrated Household Living Conditions Survey (EICV)	October 2026 October 2027
16	Mortality Assessment Survey	2026
17	Demographic and Health Survey (DHS)	In May 2025
18	Agriculture Census	August 2027
19	Vital Statistics	Every Year

29

30 Season A starts in September and ended with February; Season B starts in March and ended with June, while; Season C started in July and ends in September.

31

32 The Foreign Private Capital (FPC) is implemented by BNR, RDB and NISR

33

34 CFSVA is implemented by MINAGRI in collaboration with NISR and WFP

35 FinScope Survey is implemented by BNR, NISR and Access to Finance Rwanda

Annex 2: List of indicators in the agriculture sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of indicators	Data source	Frequency	Responsible Institution
1	Prevalence of undernourishment	1	0	0	0	0	Survey	DHS	5 years	NISR
2	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)	1	0	0	0	1	Survey	EICV	3 years	NISR
3	Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities	1	0	0	0	0	Administrative	Rwanda National Gene bank (RNGB) Operational Plan	Annual	RAB
4	Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction	1	0	0	0	0	Administrative	MINAGRI Records	Annual	MINAGRI
5	The agriculture orientation index for government expenditures	1	0	0	0	0	Administrative	Records MINAGRI, MINECOFIN	Annual	MINAGRI
6	Agricultural export subsidies	1	0	0	0	0	Administrative	NATIONAL EXPORT STRATEGY; Records MINECOFIN	Annual	MINECOFIN
7	Indicator of food price anomalies	1	0	0	0	0	Survey	Consumer price indices	Quarterly and annual	NISR
8	(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure	1	1	0	0	0	Survey	EICV, RNRA	3 years	NISR
9	Proportion of fish stocks within biologically sustainable levels	1	0	0	0	0	Administrative	RAB Reports	Annual	RAB
10	a) % annual allocation of budget to the agriculture sector.	0	1	0	0	0	Administrative	Admin	Annual	MINECOFIN
	b) % contribution of the agriculture sector to GDP	0	1	0	0	0	Administrative	Admin	Annual	MINECOFIN
11	Share of households having less than two meals a day	0	1	0	0	0	Survey	CFSVA	3 Years	NISR
12	The share of population living below minimal level of daily dietary energy	0	1	0	0	0	Survey	CFSVA	4 Years	NISR
13	Agricultural total production	0	1	0	0	0	Survey	SAS	Annually	NISR
14	% Increase of youth and women participating in integrated agricultural value chain	0	1	0	0	0	Survey	SAS	Annually	NISR
15	% Of reduction of post-harvest losses	0	1	0	0	0	Administrative	Admin	Annually	MINAGRI
16	% Of pastoral and fisher households who are resilient to climate and weather-related risk	0	1	0	0	0	Administrative	Admin	Annually	RAB
17	% Growth of the Agricultural GDP produced by commercial farms	0	1	0	0	0	Survey	National Accounts	Annually	NISR
18	(a) % of small-scale farmers graduating into small-scale commercial farming.	0	1	0	0	0	Survey	SAS	Annually	NISR
19	(b) % of women small-scale women farmers graduating into small-scale commercial farming.	0	1	0	0	0	Survey	SAS	Annually	NISR
20	Volume of intra- Africa Trade agricultural commodities and services in place	0	1	0	0	1	Administrative	Admin	Annually	RDB
21	% Of increase in value addition in the fishery sector	0	1	0	0	0	Survey	N. ACCOUNT	Quarterly	NISR
22	Diversity index (proportion of genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives including other socio-economically as well as cultural valuables species maintained)	0	1	0	0	0	Administrative	Admin	Annually	RAB
23	Food production (million metric tons)	0	0	1	0	0	Administrative	Admin	Annually	NAEB
24	Area of consolidated land	0	0	0	1	1	Administrative	MINAGRI Reports	Annually	MINAGRI
25	Percentage of farm operations mechanized	0	0	0	1	0	Administrative	MINAGRI Reports	Annually	MINAGRI
26	Quantity of fertilizer applied	0	0	0	1	0	Survey	Agriculture survey	Annually	NISR
27	Strategic reserves stored at district level	0	0	0	1	0	Administrative	MINAGRI Reports	Annually	MINAGRI
28	Credit to agriculture sector as percentage of total loans	0	0	0	1	0	Administrative	BNR	Annually	BNR

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of indicators	Data source	Frequency	Responsible Institution
29	Percentage of agricultural production growth measured by production volumes and fixed 2014 prices	0	0	0	0	1	Survey	SAS	Annually	NISR
30	Export value: 356 (Million USD)	0	0	0	0	1	Administrative	Export statistics	Annually	BNR
31	Number of jobs related to agriculture compared to baseline (gender disaggregated)	0	0	0	0	1	Survey	Labour force survey	Quarterly	NISR
32	Average income per smallholder farming household (gender disaggregated)	0	0	0	0	1	Survey	EICV	3 years	NISR
33	kcal production per capita	0	0	0	0	1	Survey	SAS, Population projections	Seasonal	NISR
34	Percentage of farmers adopting appropriate technology and improved practices (by gender and age)	0	0	0	0	1	Survey	SAS	Seasonal	NISR
35	Number of innovative start-ups / businesses created through research partnerships, trainings, extensions and financial grants (cum.)	0	0	0	0	1	Administrative	Programme reports	Annual	MINAGRI
36	Women empowerment in Agriculture index	0	0	0	0	1	Administrative	WEAI Resource Centre		IFPRI
37	Number of new technologies, crops varieties and breeds released	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
38	Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities	0	0	0	0	1	Administrative	To be monitored by RAB	Annual	RAB
39	Percentage of farmers who received extension and/or advisory services in the previous year (disaggregate by gender) including climate smart and nutrition sensitive agriculture	0	0	0	0	1	Survey	EICV	3 years	NISR
40	Number of farmers accessing extension services through private sector incentive scheme	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	RAB
41	Number of value chain actors (including farmers) trained and supported in business/cooperative management (disaggregated by age and gender) (cum.)	0	0	0	0	1	Administrative	Project Document	Annual	RAB
42	Number of women and youth supported in setting up an agri-business (cum.)	0	0	0	0	1	Administrative	Project document	Annual	RAB
43	Yield of major crops by type of crop	0	0	0	1	1	Survey	SAS	Season, Annual	NISR
44	Percentage increase in water use efficiency	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
45	Animal products produced (Meets, Eggs, Milk)	0	0	0	1	1	Administrative	RAB Reports	Annual	RAB
46	Percentage of households that consume adequate micro-nutrient food	0	0	0	0	1	Administrative	RAB, MINAGRI Reports	Annual	RAB
47	Area of land under erosion control measures (cum.) by type of measure	0	0	0	1	1	Administrative	RAB, MIS, Survey	Annual	RAB
48	Percentage of farmers using quality seeds on consolidated sites/large-scale farmers	0	0	0	1	1	Administrative	RAB Reports	Annual	RAB
49	Percentage of farmers use quality seeds: agricultural operator/non- consolidated sites	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
50	Percentage of farmers who practice integrated pest management	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
51	Percentage of mechanized farm operations	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
52	Ha of irrigation developed within an Integrated Water Resources Management Framework (cum.)	0	0	0	1	1	Administrative	RAB, Districts Reports	Annual	RAB
53	Percentage of farmers using improved feed / fodder and technologies (hay, silage, improved pasture)	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
54	Percentage of livestock owners accessing animal health services	0	0	0	0	1	Administrative	RAB Reports, Districts, MIS	Annual	RAB
55	Improved local breed as a percentage of local breeds (by livestock type)	0	0	0	0	1	Administrative	RAB Reports, Districts	Annual	RAB
56	Number of fingerlings production	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
57	Percentage of farm households that produce micro-nutrient-rich food year around	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	MINAGRI
58	Percentage of farmers receiving weather and climate information products/services	0	0	0	0	1	Administrative	Mateo Reports	Annual	METEO RWANDA

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of indicators	Data source	Frequency	Responsible Institution
59	Number of vulnerable farmers who have benefitted from asset building programs (disaggregated by male/female headed HH)	0	0	0	0	1	Administrative	RAB, Districts, MIS, surveys	Annual	RAB
60	Percentage of affected farmers receiving post-disaster packages	0	0	0	0	1	Administrative	MIDIMAR	Annual	MIDIMAR
61	Food loss index (Proxy measure: post-harvest losses) by type of crop	0	0	0	0	1	Administrative	Post-Harvest Loss (survey), M&E MINAGRI	Annual	RAB
62	Percentage of men and women engaged in agriculture that have access to financial services to be able to transact agriculture business - CAADP Indicator	0	0	0	0	1	Survey	FinScope		NISR
63	Reduction rate of the gap between wholesale price and farm gate price	0	0	0	0	1	Administrative	E-soko+ /value chain-based surveys		MINAGRI
64	Percentage of famers involved in agribusiness by gender and age	0	0	0	0	1	Survey	EICV	3 years	NISR
65	Number of other market infrastructure developed - constructed, rehabilitated, maintained (Cum) by type	0	0	0	0	1	Administrative	Project document	Annual	MINAGRI
66	Number of farmers (male/female) accessing the Market Information Tool (E-soko+) (cum.)	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	MINAGRI
67	Number of formalized out-grower schemes and similar modalities implemented with GoR support (cum.)	0	0	0	0	1	Administrative	RAB/NAEB Reports	Annual	RAB
68	Number of agricultural financial services and insurance products provided through SACCOS and coops	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	MIANAGRI
69	Kcal stored in Rwandan Strategic Grain Reserve (cum.) by national and district levels.	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	MINAGRI
70	Grain storage facilities (cum.)	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
71	Quality assurance and regulation mechanisms established	0	0	0	0	1	Administrative	MINAGRI Reports	Annual	MINAGRI
72	Level of satisfaction in services delivery (public & private) in agriculture (effectiveness & efficiency)	0	0	0	0	1	Administrative	MINAGRI score card	Annual	MINAGRI
73	Percentage of private Investment to public Investment in agriculture	0	0	0	0	1	Administrative	RDB/MINECOFIN Financial reports	Annual	MINECOFIN
74	Percentage of FDI to Public Investment in agriculture	0	0	0	0	1	Administrative	Foreign Capital Census, Fin reports	Annual	MINECOFIN
75	Share of new authorized agriculture loans	0	0	0	0	1	Administrative	MONETARY POLICY AND FINANCIAL	Annual	BNR
76	Scores in the Enabling the Business of Agriculture report (to be customized to the Rwanda's context) - average score by type	0	0	0	0	1	Administrative	WB report	Annually	WB
77	Land for coffee and tea	0	0	0	0	1	Administrative	NAEB	Annual	NAEB
78	Number of registered private investment and PPPs in agricultural sector	0	0	0	0	1	Administrative	National PPP Committee, MINAGRI	Annual	MINAGRI
79	Number of domestic private seed and fertilizer production and extension services companies (cum.)	0	0	0	0	1	Administrative	RAB Reports	Annual	RAB
80	Percentage of operationalized agricultural investment eligible for investment certificate	0	0	0	0	1	Administrative	Agricultural investment plans	Annual	RAB
81	Percentage of budget executed at districts level	0	0	0	0	1	Administrative	National Budget	Annual	MINECOFIN
82	Percentage of decentralized project integrating cross-cutting components	0	0	0	0	1	Administrative	Project/district reports	Annual	RAB
83	Number of Information System applications developed and integrated into agricultural information platform	0	0	0	0	1	Administrative	SMART reports, M&E reports	Annual	SMART RWANDA

Annex 3: List of indicators in the Education sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of Data	Data source	Frequency	Responsible institution
1	Proportional of Children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) Mathematics, by sex	1	0	0	0	0	Administrative	LARS	2 Years	MINEDUC
2	Participation rate in organized learning (one year before the official primary entry age), by sex	1	0	0	0	0	Administrative	Statistical yearbook	Annually	MINEDUC
3	Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	1	0	0	0	0	Administrative	Statistical yearbook	Annually	MINEDUC
4	Parity indices (female/male, rural/urban, bottom/top wealth quantile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	1	0	0	0	1	Survey	EICV	Annually	NISR
5	Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	1	0	0	0	0	Survey	EICV	3years	NISR
6	Net Enrolment Rate in pre- primary.	0	0	0	1	0	Administrative	Statistical yearbook	Annually	MINEDUC
7	Proportion of schools with access to: (a) electricity; (b) the internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; (g) basic hand-washing facilities (WASH definitions)	1	0	0	1	1	Administrative	Statistical yearbook	Annually	MINEDUC
8	Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country.	1	1	0	0	1	Administrative	Statistical yearbook	Annually	MINEDUC
9	Research and development expenditure as a proportion of GDP.	1	0	0	0	0	Administrative	Report	Annually	National Council for Sci and Tech
10	Researchers (in full-time equivalent) per million inhabitants	1	0	0	0	0	Administrative	Report	Annually	National Council for Sci and Tech
11	% Children entering P1 having completed 3 years of pre-primary	0	0	0	0	1	Administrative	MINEDUC	Annual	MINEDUC
12	Proportion of expenditure on network space research to national budget	0	1	0	0	0	Administrative	ADMIN	Annual	National Council for Sci and Tech
13	R&D spending as a % of GDP	0	1	0	0	0	Administrative	ADMIN	Annual	National Council for Sci and Tech
14	Proportion of primary and secondary schools with content in educational curriculum on indigenous African culture, values and language	0	1	0	0	0	Administrative	ADMIN	Annual	MINEDUC
15	% Of population who perceive quality improvements in education at all levels	0	1	0	0	0	Administrative	ADMIN	Annual	MINEDUC
16	% Of students who are enrolled in tertiary education out of those who have passed secondary	0	1	0	0	0	Administrative	Admin	Annually	Rwanda TVET Board
17	% of students who are enrolled in skill development programs out of those who have passed secondary and did not enter the tertiary sector	0	1	0	0	0	Administrative	Admin	Annually	Rwanda TVET Board
18	% of budget allocated to Science, technology and innovation, research and STI driven entrepreneurship development	0	1	0	0	0	Administrative	Research and Dev. Survey	Annually	MINEDUC
19	% Contribution of the Marine- biotechnology to GDP	0	1	0	0	0	Administrative	Admin	Annually	MINEDUC
20	Proportion of technical and vocational institutions that have programs on the creation and generation of cultural artefacts, skills development for the generation	0	1	1	0	0	Administrative	Admin	Annually	MINEDUC
21	Gross enrolment rate at primary, secondary, tertiary and technical and vocational institutions	0	1	0	0	1	Administrative	Admin	Annually	MINEDUC
22	Proportion of youth who have not been to university and are provided with TVET	0	1	0	0	0	Survey	EICV	3 YEARS	NISR

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of Data	Data source	Frequency	Responsible institution
23	Enrolment Rate Childhood Education	0	1	1	0	0	Administrative	LARS, ADMIN	2 years/ Annually	REB
24	Enrolment Rate in Primary, and Secondary	0	1	1	0	1	Administrative	LARS, ADMIN	2 years/ Annually	REB
25	Net Primary completion rate in Primary, and Secondary	0	1	1	0	1	Administrative	LARS, ADMIN	2 years/ Annually	REB
26	TVET Enrolment in numbers (000)	0	0	1	0	0	Administrative	Admin	Annual	Rwanda TVET Board
27	Pupil: Trained Teacher ratio (primary)	0	0	0	1	0	Administrative	EMIS report	Annual	MINEDUC
28	Percentage of learners achieving minimum proficiency in numeracy in S3	0	0	0	1	0	Administrative	MINEDUC	Annual	MINEDUC
29	Percentage of students enrolled in STEM related courses as proportion of total students in higher ed and TVET	0	0	0	1	0	Administrative	MINEDUC reports	Annual	MINEDUC
30	% Learners at or above basic proficiency in Kinyarwanda, English, and Mathematics in P3	0	0	0	0	1	Administrative	LARS	Annual	MINEDUC
31	% Learners at or above basic proficiency in Kinyarwanda, English, and Mathematics in P6	0	0	0	0	1	Administrative	LARS	Annual	MINEDUC
32	% Learners achieving at least minimum proficiency in Kinyarwanda, English, and numeracy in S3	0	0	0	0	1	Administrative	LARS	Annual	MINEDUC
33	Dropout rate	0	0	0	1	1	Administrative	EMIS	Annual	MINEDUC
34	Primary repetition rates (national average of all grades)	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
35	% Transition from primary to lower secondary education	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
36	% Transition from lower secondary to upper secondary	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
37	Upper secondary repetition rate	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
38	% Employers satisfied with TVET graduates	0	0	0	0	1	Administrative	TVET tracer study	Annual	MINEDUC
39	Employability of TVET Graduates	0	0	0	1	1	Administrative	TVET tracer study	Annual	MINEDUC
40	% Of HEI graduates participating in the labor force	0	0	0	0	1	Administrative	HEC tracer study	Annual	MINEDUC
41	% Employers satisfied with HEI graduates	0	0	0	0	1	Administrative	HEC tracer study	Annual	MINEDUC
42	% HEI graduates employed within 6 months of graduation (female/male)	0	0	0	0	1	Administrative	HEC tracer study	Annual	MINEDUC
43	% Of HEI programs officially benchmarked against regional and international standards	0	0	0	0	1	Administrative	HEC	Annual	MINEDUC
44	Average, primary and secondary pupil- qualified teacher ratio (PQTR)	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
45	% Of HEI staff qualified to PhD level	0	0	0	0	1	Administrative	HEC	Annual	MINEDUC
46	% Of learners enrolled in STEM related subjects	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
47	% Of Science teachers who are qualified	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
48	% Of female research and development personnel in Science field in higher education	0	0	0	0	1	Administrative	DSTR	Annual	MINEDUC
49	% Of pre-primary, primary, secondary, TVET and higher education institutions with internet connectivity	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
50	% Of HEI programs available through ODeL	0	0	0	0	1	Administrative	HEC	Annual	MINEDUC
51	Student-computer ratio at levels of education	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
52	% Of secondary schools with computer labs	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
53	% Of schools and TVET institutions equipped with at least 2 SMART classrooms	0	0	0	0	1	Administrative	REB	Annual	MINEDUC

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Types of Data	Data source	Frequency	Responsible institution
54	% Of schools, TVET and higher education institutions with digital content	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
55	% Of primary schools having pre-primary level	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
56	Formal and informal enrolment in TVET (all categories all levels)	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
57	Enrolment in HEI per 100,000 inhabitants	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
58	% Of the population aged 15 years plus who are literate	0	0	0	0	1	Survey	EICV	3 YEARS	NISR
59	% Schools, TVET and higher education institutions meeting minimum quality assurance standards	0	0	0	0	1	Administrative	REB	Annual	MINEDUC
60	% pre-primary schools meeting standard PCR: 32:1	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
61	% Primary schools meeting standard PCR: 40:1	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
62	% Lower secondary schools meeting standard PCR: 40:1	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
63	% Upper secondary schools meeting standard PCR: 38:1	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
64	% Of TVET institutions meeting standard trainer-classroom ratio 25:1	0	0	0	0	1	Administrative	RTB	Annual	MINEDUC
65	% pre-primary, primary, lower secondary, upper secondary and TVET with electricity	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
66	% pre-primary, primary, secondary and TVET with improved water	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
67	% pre-primary, primary, secondary and TVET with improved toilets	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
68	% pre-primary, primary, secondary and TVET with handwashing facilities	0	0	0	0	1	Administrative	EMIS	Annual	MINEDUC
69	Girls' national examination pass rates in primary and secondary education	0	0	0	0	1	Administrative	Natl examination results	Annual	MINEDUC
70	National examination pass rates of LwD at P6, S3 and S6	0	0	0	0	1	Administrative	Natl examination results	Annual	MINEDUC
71	Number of collaborative research projects undertaken between national HEIs	0	0	0	0	1	Administrative	DSTR	Annual	MINEDUC
72	Number of collaborative research projects between national and international HEIs	0	0	0	0	1	Administrative	DSTR	Annual	MINEDUC
73	Number of highly ranked international HEIs operating in Rwanda	0	0	0	0	1	Administrative	HEC	Annual	MINEDUC
74	% Of TVET institutions meeting quality assurance standards	0	0	0	0	1	Administrative	RTB	Annual	MINEDUC
75	% Of HEIs independently monitored against international benchmarks	0	0	0	0	1	Administrative	HEC	Annual	MINEDUC
76	% Of head teachers trained and mentored in leadership and management	0	0	0	0	1	Administrative	REB	Annual	MINEDUC
77	Number of PPPs at pre-primary	0	0	0	0	1	Administrative	MINEDUC	Annual	MINEDUC
78	% Of TVET trainees accessing private industrial attachments	0	0	0	0	1	Administrative	RTB	Annual	MINEDUC
79	% Of income raised by public TVET and HEIs compared to total budget	0	0	0	0	1	Administrative	RTB	Annual	MINEDUC
80	Percentage of students enrolled in TVET as proportion of total students	0	0	0	1	0	Administrative	ADMIN	Annual	MINEDUC

Annex 4: List of indicators in the ENR sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Type of Sources	Data source	Frequency	Responsible Institution
1	Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure	1	0	0	0	0	Administrative	Land Administration Information System (LAIS)	Annual	RNRA
2	Proportion of bodies of water with good ambient water quality	1	0	0	0	0	Administrative	Water Quality Monitoring in Rwanda I, II & III	Annual	RWB
3	Change in water-use efficiency over time	1	0	0	0	0	Administrative	MININFRA Records	Annual	MININFRA
4	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	1	0	0	0	0	Administrative	MININFRA Records	Annual	MININFRA
5	Degree of integrated water resources management implementation (0-100)	1	0	0	0	0	Administrative	Records of MINIREMA; Consistency analysis for IWRM; pilot survey	Annual	RWB
6	Proportion of transboundary basin area with an operational arrangement for water cooperation	1	0	0	0	0	Administrative	Nile Basin Initiative; Congo Basin	Annual	MoE
7	Change in the extent of water-related ecosystems over time	1	0	0	0	0	Administrative	Rwanda State of the environment Report	Annual	RWFA
8	CO2 emission per unit of value added	1	0	0	1	0	Administrative	(TNC) report on Climate Change	Annual	MoE
9	Ratio of land consumption rate to population growth rate.	1	0	0	0	0	Administrative	Admin	Annual	RNRA
10	Annual mean levels of fine particulate matter in cities	1	0	0	0	0	Administrative	MoE Reports	Annual	MoE
11	Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	1	0	0	0	0	Administrative	MoE Reports	Annual	MoE
12	Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	1	0	0	0	0	Administrative	MINAGRI	Annual	MINAGRI
13	Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries	1	0	0	0	0	Administrative	MINAGRI/RAB Records	Annual	MINAGRI, RAB
14	Forest coverage of total surface areas	1	0	0	1	1	Administrative	Records of MINRENA, Rwanda State of Environment and outlook Report	Annual	MoE
15	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	1	0	0	0	0	Administrative	National Biodiversity Strategies and Action Plans (NBSAPs)	Annual	MoE
16	Progress towards sustainable forest management	1	0	0	0	0	Administrative	District forest management plan; Forest management strata	Annual	RWFA
17	Proportion of land that is degraded over total land area	1	0	0	0	0	Administrative	RNRA Reports	Annual	RNRA
18	Coverage by protected areas of important sites for mountain biodiversity	1	0	0	0	0	Administrative	RNRA Reports	Annual	RNRA
19	Proportion of waste recycled	0	1	0	0	0	Administrative	Adm/Specific survey	Annual	REMA
20	% Of agricultural land placed under sustainable land management practice	0	1	0	0	0	Administrative	Admin	Annually	REMA
21	a) % of terrestrial and inland water areas preserved; b) % of coastal and marine areas preserved	0	1	0	0	0	Administrative	Admin	Annually	RLMU
22	Proportion of national parks and protected areas managed on the basis of master and national plan	0	1	0	0	0	Administrative	Admin	Annually	RDB
23	% Of water demand satisfaction	0	1	0	0	0	Administrative	Admin	Annually	RWB
24	% in water productivity used in rain-fed agriculture and irrigation	0	1	0	0	0	Administrative	Admin	Annually	RWB
25	% Of rainwater harvested for productive use	0	1	0	0	0	Administrative	Admin	Annually	RWB
26	% Of farmers, pastoralist and fisher folks practicing climate resilient production systems	0	1	0	0	0	Administrative	Admin	Annually	REMA

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Type of Sources	Data source	Frequency	Responsible Institution
27	Levels of emissions arising from agriculture bio-diversity loss, land use and deforestation	0	1	0	0	0	Administrative	Admin	Annually	RAB
28	Number of Cities meeting the WHO's Ambient Air Quality Standards (AAQS)	0	1	0	0	0	Administrative	Admin	Annually	REMA
29	The level of satisfaction of local authorities on the share of the exploitation of natural resources for the benefit of all.	0	1	0	0	0	Administrative	Admin	Annually	RGB
	The proportion of revenue generated from exploitation of natural resources retained in the local communities.	0	1	0	0	0	Administrative	Admin	Annually	RGB
30	Value of mineral exports per annum	0	0	0	1	0	Administrative	RMB Reports	Annually	RMPGB
31	% Of public forest plantation allocated to private operators	0	0	0	1	0	Administrative	RWFA reports	Annually	RWFA
32	Number of ha of land under agro forestry	0	0	0	0	1	Administrative	RWFA report /Ground survey	Annually	RWFA
33	% of public forest plantations allocated to private women and men operators	0	0	0	0	1	Administrative	RWFA report/Contracts/ MoU	Annually	RWFA
34	Number of ha of small natural forests under participatory management	0	0	0	0	1	Administrative	RWFA reports /MoUs	Annually	RWFA
35	% Of improved seeds provided to women and men farmers	0	0	0	0	1	Administrative	RWFA reports	Annually	RWFA
36	% Of charcoal produced by certified "green charcoal" of women and men's companies and cooperatives	0	0	0	0	1	Administrative	MINILAF and RWFA reports	Annually	MoE
37	Number of Ha of degraded forests rehabilitated	0	0	0	0	1	Administrative	RWFA reports	Annually	RWFA
38	Renewable water resources availability per capita per annum (m3/capita/annum	0	0	0	0	1	Administrative	WRM reports	Annually	RWB
39	% Of catchments with management committees Task Forces of women and men	0	0	0	0	1	Administrative	WRM reports	Annually	WRM
40	Number of shared basins/catchments with cooperation frameworks	0	0	0	0	1	Administrative	WRM reports	Annually	WRM
41	Percentage of implementation of approved catchment management plans	0	0	0	0	1	Administrative	WRM reports	Annually	WRM
42	Percentage of degraded areas in 4 priority catchments rehabilitated	0	0	0	0	1	Administrative	Reports from WRMD/REMA/ MINAGRI/ FONERWA and Districts	Annually	REMA, MINAGRI, FONERWA
43	Percentage of water bodies with ambient water quality	0	0	0	0	1	Administrative	WRM/ REMA/ WASAC reports	Annually	RWB
44	Percentage of Floods control investment measures implemented	0	0	0	0	1	Administrative	WRM reports	Annually	RWB
45	% Of women and men water users with water permits	0	0	0	0	1	Administrative	WRM reports	Annually	RWB
46	Artificial water storage per capita	0	0	0	0	1	Administrative	WRM reports	Annually	RWB
48	Number of Sector and district land plans (Cumulatively) integrated into a paperless Land register	0	0	0	0	1	Administrative	LAIS	Annually	RNRA
49	% Of Land use plan harmonized with NLUDMP	0	0	0	0	1	Administrative	DLUP, LUDP, CoK harmonized	Annually	DLUP
50	Number of administrative entities with annual reference prices and market value integrated	0	0	0	0	1	Administrative	LAIS	Annually	RNRA
51		0	0	0	0	1	Administrative	Assessment report on district land use master plan	Annually	RNRA
	% Of compliance of land use development plans to the NLUDMP						Administrative			
52	% Of agriculture and premium land protected	0	0	0	0	1	Administrative	Assessment report on district land use master plan	Annually	RNRA, Districts
53	% Of increased coverage in surveying and mapping	0	0	0	0	1	Administrative	CORS Rwanda geo net platform	Annually	CORS Rwanda
54	% Of National Spatial Data Infrastructure established and operational	0	0	0	0	1	Administrative	NSDI platform in place	Annually	NSDI

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Type of Sources	Data source	Frequency	Responsible Institution
55	Number of weather and climate products and services produced and disseminated by type of channel	0	0	0	0	1	Administrative	QMS Audit report	Annually	QMS
56	% Of occurred extreme weather events for which advance warning was provided at least 30 min in advance	0	0	0	0	1	Administrative	Feedback for various platforms and internal forecast verification	Annually	METEO RWANDA, RNRA
57	% Of polled women and men users of weather & climate information from Mateo Rwanda who are satisfied or very satisfied with the service	0	0	0	0	1	Administrative		Annual sector Satisfaction report	METEO RWANDA, RNRA
58	% Of demand of Mateo Rwanda weather data by channels	0	0	0	0	1	Administrative	Climate Data requests served	Annually	METEO RWANDA, RNRA
59	% Of forecasts by level of accuracy	0	0	0	0	1	Administrative	Forecast verification report	Annually	METEO RWANDA, RNRA
60	Number of sectors with approved SEA monitored	0	0	0	0	1	Administrative	Annual monitoring reports	Annually	MoE
61	% Of approved EIA and EA certified projects in compliance (75% or above) with EIAs, EAs Studies and Conditions of approval	0	0	0	0	1	Administrative	REMA reports	Annually	REMA
62	% Of hazardous/toxic waste safely managed	0	0	0	0	1	Administrative	REMA reports	Annually	REMA
63	Number of circular economy initiatives supported	0	0	0	0	1	Administrative	REMA, FONERWA, MoE Reports	Annually	REMA
64	% Of air quality monitoring stations with Good, Moderate, Unhealthy Air Quality Index	0	0	0	0	1	Administrative	Station readings; REMA reports	Annually	REMA
65	Number of degraded wetlands ecosystems rehabilitated (fully protected wetlands and complex wetlands)	0	0	0	0	1	Administrative	REMA and RWFA reports	Annually	REMA
66	% Of Nationally Determined Contributions (NDC) programmatic targets achieved	0	0	0	0	1	Administrative	NDC monitoring report	Annually	NDC
67	Volume of Finance Mobilized (in USD Millions)	0	0	0	0	1	Administrative	Financing agreements	Annually	MoE
68	Increased knowledge of the available minerals, petroleum and gas in the country	0	0	0	0	1	Administrative	RMPGB reports	Annually	RMPGB
69	Value of Annual contributions of mining sector to export revenues in USD ($).	0	0	0	0	1	Administrative	RMPGB Reports	Annually	RMPGB
70	Level of grade for exported Minerals.	0	0	0	0	1	Administrative	RMPGB Reports and grade reports of exported minerals	Annually	RMPGB
71	Number of mines complying with environmental and modernized practices	0	0	0	0	1	Administrative	RMPGB and REMA Reports	Annually	RMPGB

Annex 5: List of indicators in the Energy sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Indicator type	Data source	Frequency	Responsible Institution
1	Proportion of population with access to and using electricity	1	1	1	1	1	Survey	EICV	3 years	NISR
2	Proportion of population with primary reliance on clean fuels and technology	1	0	0	0	0	Survey	EICV	3 years	NISR
3	Renewable energy share in the total final energy consumption	1	0	0	0	0	Administration data	REG Report	Annual	REG
4	Energy intensity measured in terms of primary energy and GDP	1	0	0	0	0	Administration data	REG Report	Annual	REG
5	Per capita energy consumption (KWH)	0	1	0	0	0	Administration data	Admin	Annual	MININFRA
6	Increase in % of renewable energy sourced from the wave energy	0	1	0	0	0	Survey	EICV	3 years	NISR
7	% Reduction of fossil fuel in total energy production	0	1	0	0	0	Administration data	Admin	Annual	MoE
8	Number of additional Mega Watts into the national grid	0	1	0	0	0	Administration data	Admin	Annual	REG
9	% Of connectivity to electricity by consumers disaggregate by type	0	1	0	0	0	Survey	EICV	3 years	NISR
10	Energy Production (Megawatts) by type	0	0	1	0	0	Administration data	Admin	Annual	MININFRA
11	Percentage of households using firewood for cooking	0	0	0	1	1	Survey	EICV	3 years	NISR
12	Generation capacity increased to ensure that all demand is met, and a 15% reserve margin is maintained	0	0	0	0	1	Administration data	REG Report	Annual	REG
13	Reliability of electricity supply improved: average number of power interruptions per year reduced to 16 and average number of hours without power to 9	0	0	0	0	1	Administration data	RURA assessment	Annual	RURA
14	Productive user access to electricity increased to 100%	0	0	0	0	1	Administration data	electrification report	Annual	REG
15	Losses in the transmission and distribution networks reduced to 15%	0	0	0	0	1	Administration data	RURA assessment	Annual	RURA
16	Petroleum strategic reserves increased to cover three months' supply	0	0	0	0	1	Administration data	MININFRA reporting	Annual	MININFRA

Annex 6: List of indicators in the Finance sector and their sources

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	SDDS	Indicator Types	Data source	Frequency	Responsible institution
1	Number of (a) commercial bank branches per 100,000 adults and (b) number of automated teller machines (ATMs) per 100,000 adults	1	0	0	0	1	0	Administrative	FSDD/ Financial Sector	Annually	MINECOFIN
2	Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider	1	0	0	0	1	0	Administrative	FSDD/ Financial Sector	Annually	MINECOFIN
3	Remittance costs as a proportion of the amount remitted	1	0	0	0	0	0	Administrative	MACRO-ECONOMICS	Annually	BNR
4	Volume of remittances (in United States dollars) as a proportion of total GDP	1	0	0	0	0	0	Administrative	MACRO-ECONOMICS	Annually	BNR
5	Debt service as a proportion of exports of goods and services	1	0	0	0	0	0	Administrative	MACRO-ECONOMICS	Annually	BNR
6	Amount of philanthropic funds mobilized	0	1	0	0	0	0	Administrative	Admin	Annually	MINECOFIN
7	% Of loan portfolios disbursed to women by size of portfolio (R/U)	0	1	0	0	0	0	Administrative	Admin	Annually	BNR
8	% Growth rate in increase in real GDP	0	1	0	0	0	0	Surveys	N. ACCOUNT	Annually	NISR
9	Number of commodities exchanges functional	0	1	0	0	0	0	Administrative	Admin	Annually	BNR
10	% Expenditure R&D as a percentage of GDP	0	1	0	0	0	0	Administrative	Admin	Annually	BNR
11	% Improvement in diversification index	0	1	0	0	0	0	Administrative	Admin	Annually	BNR
12	Proportion of women with a savings account	0	1	0	0	0	0	Surveys	FINSCOPE SURVEY	3 YEARS	NISR
13	Proportion of population with an account at a formal financial institution	0	1	0	0	1	0	Surveys	FINSCOPE SURVEY	3 YEARS	NISR
14	Proportion of development expenditure contributed by national capital markets	0	1	0	0	0	0	Surveys	N. ACCOUNT	Quarterly	NISR
15	Total tax revenue/GDP	0	1	0	0	0	0	Surveys	N. ACCOUNT	Quarterly	NISR
16	% Of firms paying tax	0	1	0	0	0	0	Administrative	Admin	Annually	MINECOFIN
17	Percentage of population paying direct tax	0	1	0	0	0	0	Administrative	Admin	Annually	MINECOFIN
18	Share of the recurrent and development expenditure funded by tax and non-tax revenue	0	1	0	0	0	0	Administrative	Admin	Quarterly	MINECOFIN
19	% Decrease of total ODA as a percentage of the national budget	0	1	0	0	0	0	Administrative	Admin	Annually	MINECOFIN
20	% Volume of remittances (USD/GDP)	0	1	0	0	0	0	Administrative	Admin	Quarterly	BNR
21	Average Regional Economic Growth (%)	0	0	1	0	0	0	Administrative	Admin	Annually	MINICOM
22	Gross Capital Formation (as a % of Total Export)	0	0	1	0	0	0	Administrative	Admin	Annually	BNR
23	Raising Local Value Addition (%)	0	0	1	0	0	0	Administrative	Admin	Annually	MINECOFIN
24	Contribution to GDP (%) [Agriculture, Industry and Service]	0	0	1	1	0	0	Surveys	Admin	Annually	NISR
25	Manufactured Export (as % of total Export)	0	0	1	0	0	0	Administrative	Admin	Annually	MINICOM
26	FDI net inflows (% of GDP)	0	0	1	0	0	0	Administrative	Admin	Annually	BNR
27	Gross domestic Savings as a share of GDP	0	0	0	1	1	0	Administrative	Admin	Annually	BNR
28	Percentage of payments done electronically as a share of GDP	0	0	0	1	1	0	Administrative	Admin	Annually	BNR
29	Domestic Credit to private sector as percentage (%) of GDP	0	0	0	0	1	0	Administrative	Admin	Annually	BNR

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	SDDS	Indicator Types	Data source	Frequency	Responsible institution
30	Total new authorized loans to the private sector	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
31	Credit to Agriculture sector (primary farming and agro processing in agriculture, fisheries & livestock) as percentage of total loans (all sectors)	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
32	Proportion of small-scale industries with a loan/loan to the SMEs	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
33	Number of Adult Rwandans financially Included	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
34	Total value of inward and outward illicit financial flows (in current United States dollars)	0	0	0	0	1	0	Administrative	Admin	Annually	MINECOFIN
35	Number of Active Mobile Money Holders (Subscribers)	0	0	0	0	1	0	Administrative	Admin	Annually	MINECOFIN
36	Number POS terminals	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
37	Number of international financial services institutions in the market	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
38	Value of foreign investments made in the financial services (FDIs)	0	0	0	0	1	0	Administrative	Admin	Annually	BNR
39	National Accounts (GDP)	0	0	0	0	0	1	Surveys	Survey	Quarterly	NISR
40	Consumer Price Index	0	0	0	0	0	1	Surveys	Survey	Monthly	NISR
41	Producer Price Index	0	0	0	0	0	1	Surveys	Survey	Monthly	NISR
42	General Government Operations	0	0	0	0	0	1	Administrative	Admin	Annually	MINECOFIN
43	Central Government Operations	0	0	0	0	0	1	Administrative	Admin	Monthly	MINECOFIN
44	Central Government Gross Debt	0	0	0	0	0	1	Administrative	Admin	Quarterly	MINECOFIN
45	Depository Corporations Survey	0	0	0	0	0	1	Administrative	Admin	Monthly	BNR
46	Central Bank Survey	0	0	0	0	0	1	Administrative	Admin	Monthly	BNR
47	Interest Rates	0	0	0	0	0	1	Administrative	Admin	Daily	BNR
48	Stock Market	0	0	0	0	0	1		Admin	Day	RSE
49	Balance of Payments	0	0	0	0	0	1	Administrative	Admin	Quarterly	BNR
50	External Debt	0	0	0	0	0	1	Administrative	Admin	Quarterly	MINECOFIN
51	Official Reserve Assets	0	0	0	0	0	1	Administrative	Admin	Monthly	BNR
52	Merchandise Trade	0	0	0	0	0	1	Surveys	Admin	Monthly	NISR
53	International Investment Position	0	0	0	0	0	1	Administrative	Admin	Annually	BNR
54	Exchange Rates	0	0	0	0	0	1	Administrative	Admin	Day	BNR
55	Production Index	0	0	0	0	0	1	Surveys	Admin	Monthly	NISR
56	Labor Market	0	0	0	0	0	1	Surveys	Admin	Quarterly	NISR
57	Producer Price Index	0	0	0	0	0	1	Surveys	Admin	Monthly	NISR
58	Reserves Template	0	0	0	0	0	1	Administrative	Admin	Monthly	BNR

Annex 7: List of indicators in the Governance & Decentralization sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible Institution
1	Proportion of seats held by (a) women in national parliaments and (b) local government	1	1	1	0	1	Administrative	Admin	Annual	GMO
2	Proportion of women in managerial positions	1	1	0	0	0	Survey	LFS	Quarterly	NISR
3	Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment	1	0	0	0	0	Administrative	Admin		GMO
4	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	1	0	0	0	0	Administrative	National Policy & Strategy for WATSAN	Annual	MINALOC
5	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	1	0	0	0	0	Survey	DHS/CRVS	Annual, 5 years	NISR
6	% Of opportunities offered to RECs citizen extended to non-RECs citizens	0	1	0	0	0	Administrative	Admin	Annual	MIGRATION OFFICE
7	% of people who believe that there is free access to information	0	1	0	0	1	Survey	Admin	Annually	RGB
8	% Of people who perceive that there is freedom of the press.	0	1	0	0	1	Survey	Admin	Annually	RGB
9	% Of people who believe that the elections are free, fair and transparent.	0	1	0	0	0	Survey	Survey	Annually	RGB
10	% Of the accredited electoral observers who certifies elections to be free and fair	0	1	0	0	0	Administrative	Admin	Annually	RGB
11	Percentage of countries: - Signed - Ratified - Integrated	0	1	0	0	0	Administrative	Admin	Annually	RGB
12	Proportion of women owned and managed businesses that were awarded public procurement at national and subnational level	0	1	0	0	0	Administrative	Admin	Annually	GMO
13	Gender parity index in political and managerial	0	1	0	0	0	Administrative	Admin	Annually	GMO
14	Existence systems to track and make public allocations for gender equality and women's empowerment, existence of gender-based budgeting	0	1	0	0	0	Administrative	Admin	Annually	GMO
15	Transparency index (reduced corruption)	0	0	1	0	0	Administrative	Survey	Annually	Transparency Row
16	Gender adjusted development index	0	0	1	0	0	Administrative	Admin	Annually	GMO
17	% Of citizens satisfaction in their participation in planning/budgeting processes, by gender, age, disability	0	0	0	0	1	Survey	CRC	Annually	RGB
18	% Of non-state actors satisfaction in citizen participation and empowerment	0	0	0	0	1	Survey	CRC/Imihigo	Annually	RGB
19	Proportion of youth enrolled in Voluntary National Service (Urugerero)	0	0	0	0	1	Administrative	Districts/NIC Reports	Annually	MINUBUMWE
20	Persons in volunteer work	1	0	0	0	1	Administrative	Districts/NIC Reports	Annually	MINUBUMWE
21	% Of citizens' complaints and demands addressed during community outreach programs	0	0	0	0	1	Administrative	MINALOC Reports	Annually	MINALOC
22	% Of impact value from Citizen participation and CSO inclusiveness in national development	0	0	0	0	1	Survey	PPP District report Rwanda Civil Society Barometer (RCSDB)	Annually	RGB
23	% Of citizens satisfied with community outreach programs	0	0	0	0	1	Survey	RGB and MINALOC	Annually	RGB
24	% Level of transparency and accountability in public sector	0	0	0	0	1	Administrative	RGS (RGB, OAG, Ombudsman, RPPA)	Annually	RGB
25	% Of population that perceive the district administration as transparent, accountable and citizen oriented	0	1	0	0	1	Survey	Perceptions surveys like CRC&CSOs RGB	Annually	RGB
26	Number of public accountability days conducted at District level	0	0	0	0	1	Administrative	MINALOC reports.	Annually	MINALOC
27	Level of JADF participation in Local Governance and planning	0	0	0	0	1	Administrative	CSDB	Annually	RGB
28	% Level of feedback to citizen by local government councils	0	0	0	0	1	Survey	CRC/Assessments	Annually	RGB

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible Institution
29	% Level of CSOs performance in transparency and accountability promotion	0	0	0	0	1	Administrative	Civil Society Influencing Public Policy Report (CSDB)/ TI Rwanda	Annually	RGB
30	Citizens satisfied with service delivery	0	0	0	1	1	Survey	RGS	Annually	RGB
31	Percentage of citizen satisfaction in their participation in decision- making.	0	0	0	1	0	Survey	RGS	Annually	RGB
32	Level of citizens' satisfaction with service delivery in Local Administration	0	0	0	0	1	Survey	CRC/Inspection reports	Annually	RGB
33	Level (%) of SD standards implementation in all sectors	0	0	0	0	1	Survey	CRC	Annually	RGB
34	% Of digitized services out of total services in G&D Sector institutions and in local government	0	0	0	0	1	Administrative	MINICT Reports /District ICT reports	Annually	MINICT
35	% Of people per cell trained in the use of online services	0	0	0	0	1	Administrative	MINICT report	Annually	MINICT
36	% Of services delivered at cell level compared to LG services	0	0	0	0	1	Administrative	Service delivery inspection reports	Annually	RGB
37	% Cells with required infrastructures and equipment to become centers of service delivery	0	0	0	0	1	Administrative	Service delivery inspection reports	Annually	RGB
38	% Of districts budget financed by own revenues	0	0	0	0	1	Administrative	Financial Report	Annually	MINECOFIN
39	% Of locally generated revenues allocated to the district development budget	0	0	0	0	1	Administrative	RRA revenues reports	Annually	RRA
40	Number of Districts with unqualified audit opinion on financial statements	0	0	0	0	1	Administrative	AG Report	Annually	AOG
41	% Of budget over which Districts have discretionary powers	0	0	0	0	1	Administrative	MINECOFIN Reports	Annually	MINECOFIN
42	Number of jobs created (disaggregated)	0	0	0	0	1	Administrative	Implementation report of NST 1	Annually	RDB
43	% Of local businesses paying corporate income tax	0	0	0	0	1	Administrative	RRA/RDB reports	Annually	RRA, RDB
44	Number of businesses per district developed around local potentialities	0	0	0	0	1	Administrative	Assessment reports	Annually	RDB
45	Amount invested in exploiting potentialities outlined in LED Strategies (in Rwf) per district	0	0	0	0	1	Administrative	Assessment reports	Annually	RDB
46	Amount of funds raised per district through municipal bonds	0	0	0	0	1	Administrative	District Reports/Kigali Capital Financial reports	Annually	CoK, Districts
47	% Of Public-Private Partnership projects successfully implemented at District Level	0	0	0	0	1	Administrative	LODA Reports/Districts Reports or NISR Survey	Annually	LODA
48	Proportion of sectoral services decentralized compared to all services to be decentralized	0	0	0	0	1	Administrative	Sector Decentralization Report	Annually	RGB
49	Number of projects implemented with fully involvement of LG	0	0	0	0	1	Administrative	Sector Decentralization Report	Annually	RGB
50	% Of sectors with updated inventory	0	0	0	0	1	Administrative	Sector Decentralization Report	Annually	RGB
51	% Of districts budget financed by earmarked funds required for implementation of decentralized services	0	0	0	0	1	Administrative	National Budget, FDU	Annually	MINECOFIN
52	% Of services decentralized as agreed upon by concerned line ministries	0	0	0	0	1	Administrative	Decentralization Report	Annually	RGB
53	% Of LG budget for CD development	0	0	0	0	1	Administrative	District budget/CESB Report	Annually	RDB, RGB
54	% Of activities of new CD strategy that have been implemented	0	0	0	0	1	Administrative	Reports of GD Sector; CESB Report (State of Capacity Development)	Annually	MINALOC
55	% Of CD provided by certified and quality assured institutions	0	0	0	0	1	Administrative	CESB/RALGA/LGI Report	Annually	LODA
56	% Of institutions applying HGS and innovations impacting the livelihood and welfare of citizens	0	0	0	0	1	Administrative	annual report on HGs	Annually	RGB
57	% Of HGS and innovations developed in comparison to the problems encountered by different categories of the society	0	0	0	0	1	Administrative	annual report on HGS	Annually	RGB
58	Number of HGSs documented and assessed	0	0	0	0	1	Administrative	HGS Assessment reports	Annually	RGB
59	Number of HGSs certified and protected	0	0	0	0	1	Administrative	Certificates of protected HGSs	Annually	RGB

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible Institution
60	Amount of revenues generated from commercialization of HGSs (Frw)	0	0	0	0	1	Administrative	Report on revenues generated from commercialization of HGSs	Annually	RRA
61	Proportion of citizens per district disaggregated by age, gender and disability aware of Rwandan values and HGS	0	0	0	0	1	Survey	Survey by RGB/MINUBUMWE	Annually	RGB, MINUBUMWE
62	% Of villages in which "Itorero" is operational	0	0	0	0	1	Administrative	Districts and NIC reports	Annually	MINUBUMWE
63	% Of schools per district in which Itorero is operational	0	0	0	0	1	Administrative	Districts and NIC reports	Annually	MINUBUMWE
64	Number of TV & Radio (public and private) programs promoting Rwandan values per week and per media house	0	0	0	0	1	Administrative	# Of contracts signed with media houses on programs promoting Rwandan values	Annually	MINALOC
65	Number of protectors of Rwandan values trained and certified per cell	0	0	0	0	1	Administrative	# Of trainings & retreats organised for the selected Rwandan values	Annually	MINISPOC, MINALOC
66	District performance in Annual Imihigo	0	0	0	1	1	Survey	Imihigo Evaluation report	Annually	NISR
67	MDAs performance in Annual Imihigo	0	0	0	1	1	Survey	Imihigo Evaluation report	Annually	NISR

Annex 8: List of indicators in the health sector and their sources

SN	Indicator	SDG	AU2063	EAC 2050	NST2	SSP	Data Types	Data source	Frequency	Responsible institution
1	Prevalence of stunting among children under 5 years of age	1	1	0	1	1	Survey	RDHS	5 years	NISR
2	Prevalence of malnutrition among children under 5 years of age, by type (wasting and overweight)	1	0	0	0	0	Survey	RDHS	5 years	NISR
3	Maternal mortality ratio	1	1	1	1	1	Survey	RDHS	5 years	NISR
4	Proportion of births attended by skilled health personnel	1	1	0	0	1	Survey	RDHS	5 years	NISR
5	Under-five mortality rate	1	1	0	1	1	Survey	RDHS/CRVS	5 years	NISR
6	Neonatal mortality rate	1	1	0	0	1	Survey	RDHS/CRVS	5 years	NISR
7	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	1	1	0	0	1	Survey	RDHS	5 years	NISR
8	Tuberculosis incidence per 100,000 population	1	0	0	0	1	Administrative	HMIS	Annually	RBC
9	Malaria incidence per 1,000 population	1	1	0	0	1	Administrative	HMIS	Annually	RBC
10	Hepatitis B incidence per 100,000 population	1	0	0	0	1	Administrative	studies on Hepatitis	Annually	RBC
11	Number of people requiring interventions against neglected tropical diseases	1	0	0	0	0	Administrative	HMIS	Annually	RBC
12	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	1	0	0	0	0	Administrative	HMIS	Annually	MOH

SN	Indicator	SDG	AU2063	EAC 2050	NST2	SSP	Data Types	Data source	Frequency	Responsible institution
13	Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	1	0	0	0	0	Administrative	Rwanda STEP Survey, NCD Risk Factors Report		MOH
14	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	1	0	0	0	0	Survey	RDHS	5 years	NISR
15	Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	1	0	0	0	1	Survey	RDHS/CRVS	5 years	NISR
16	Coverage of essential health services	1	0	0	0	0	Administrative	RDHS	5 years	NISR
17	Proportion of population with large household expenditures on health as a share of total household expenditure or income	1	0	0	0	0	Administrative	EICV	5 years	NISR
18	Mortality rate attributed to household and ambient air pollution	1	0	0	0	0	Administrative	HMIS		MOH
19	Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene	1	0	0	0	0	Administrative	HMIS	Annually	MOH
20	Mortality rate attributed to unintentional poisoning	1	0	0	0	0	Administrative	HMIS		MOH
21	Age-standardized prevalence of current tobacco use among persons aged 15 years and older	1	0	0	0	0	Administrative	RDHS	5 years	NISR
22	Proportion of the target population covered by all vaccines included in their national programme	1	0	0	0	0	Administrative	RDHS	5 years	NISR
23	Health worker density and distribution	1	0	0	0	0	Administrative	Human Resource for Health Information System (iHRIS)		MoH
24	International Health Regulations (IHR) capacity and health emergency preparedness	1	0	0	0	0	Administrative	National Disaster Risk Management Plan: National Disaster Manage Policy	Annually	MoH
25	Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age	1	1	0	0	0	Survey	RDHS	5 years	NISR
26	Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	1	0	0	0	0	Survey	RDHS	5 years	NISR
27	Prevalence of underweight among children under 5	0	1	0	0	0	Survey	RDHS	5 YEARS	NISR
28	% Of population with access to quality primary health care	0	1	0	0	0	Survey	RDHS	5 YEARS	NISR
29	% Of women in the reproductive age 15-49 who have access to sexual and reproductive health care service	0	1	0	0	0	Survey	RDHS	5 YEARS	NISR
30	Disease specific mortality rate (HIV/AIDS, Malaria and TB)	0	1	0	0	0	Administrative	HMIS	Annually	RBC
31	% Of children under 5 dying of malaria	0	1	0	0	0	Administrative	HMIS/CRVS	Annually	RBC
32	% Of population below minimum level of dietary and energy consumption	0	1	0	0	0	Survey	CFSVA/CRVS	3 years	NISR
33	Proportion of deaths attributed to dengue fever and chikungunya	0	1	0	0	0	Administrative	HMIS//CRVS	Annually	MoH
34	% Of eligible population with HIV having access to ARV	0	1	0	0	0	Survey	RDHS/CRVS	5 YEARS	NISR
35	Percentage of women aged 18-24 who were married or in a union before age 18	0	1	0	0	0	Survey	RDHS	5 YEARS	NISR
36	The proportion of children whose births are registered within the first year	0	1	0	0	0	Survey	CRVS	Annual	NISR
37	Life Expectancy at birth (Years)	0	0	1	0	0	Survey	RDHS/CRVS	5 Years	NISR
38	Infant Mortality rate (per 1000 births)	0	0	1	0	1	Survey	RDHS	5 Years	NISR
39	Total Fertility rate (live births per woman)	0	0	1	0	0	Survey	RDHS/CRVS	5 Years	NISR
40	Access to Health services (%)	0	0	1	0	0	Survey	EICV/CRVS	3years	NISR
41	HIV prevalence rate (%)	0	0	1	0	0	Administrative	HMIS	Annually	RBC

SN	Indicator	SDG	AU2063	EAC 2050	NST2	SSP	Data Types	Data source	Frequency	Responsible institution
42	Communicable diseases (%)	0	0	1	0	0	Administrative	HMIS	Annually	RBC
43	Ratio of medical practitioners, general specialists, nurses and qualified midwives per population	0	0	0	1	0	Administrative	MoH reports	Annually	MoH
44	Prevalence of modern contraceptive use among women in reproduction age (15-49)	0	0	0	1	0	Survey	RDHS	5 Years	NISR
45	Premature Mortality rate attributed to cancer, diabetes and HTA	0	0	0	0	1	Administrative	HSASB/CVRS		MoH
46	Premature Mortality rate from road traffic accidents	0	0	0	0	1	Administrative	HSASB/CVRS		MoH
47	ANC coverage (4 standards visits)	0	0	0	0	1	Survey	RPHC	5 Years	NISR
48	% New-borns with at least one PNC visit within the first two days of birth	0	0	0	0	1	Survey	RPHC	5 Years	NISR
49	Modern Contraceptive Prevalence Rate (MCPR)	0	0	0	0	1	Survey	RPHC	5 Years	NISR
50	Unmet need for Family Planning	0	0	0	0	1	Survey	RPHC	5 Years	NISR
51	% Children 12-23 months fully immunized	0	0	0	0	1	Survey	RPHC/CRVS	5 Years	NISR
52	% Exclusive Breastfeeding < 6 months	0	0	0	0	1	Survey	RPHC	5 Years	NISR
53	Teenage pregnancy rate (15-19 years)	0	0	0	0	1	Survey	RPHC/CRVS	5 Years	NISR
54	Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	0	0	0	0	1	Survey	RPHC	5 Years	NISR
55	Proportion of children with diarrhea receiving oral rehydration solution (ORS)	0	0	0	0	1	Survey	RPHC	5 Years	NISR
56	HIV prevalence among people aged 15–49 years	0	0	0	0	1	Administrative	HMIS	Annually	MoH
57	Proportion of persons diagnosed with HIV infection receiving sustained ART	0	0	0	0	1	Administrative	HMIS	Annually	MoH
58	HIV incidence/1000 population	0	0	0	0	1	Administrative	HMIS	Annually	MoH
59	Percentage of infants born to HIV + mothers free from HIV by 18 months	0	0	0	0	1	Administrative	HMIS	Annually	MoH
60	TB treatment coverage rate	0	0	0	0	1	Administrative	HMIS	Annually	MoH
61	Treatment success rate (TSR) for all forms of TB cases (DS & DR-TB cases)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
62	Proportion of newly diagnosed leprosy with grade 2 disability	0	0	0	0	1	Administrative	HMIS	Annually	MoH
63	Proportion Households with at least one LLIN	0	0	0	0	1	Administrative	HMIS	Annually	MoH
64	Malaria proportional mortality rate	0	0	0	0	1	Administrative	HMIS	Annually	MoH
65	Proportion of children under five years old who slept under a LLIN the previous night	0	0	0	0	1	Survey	RDHS	5 Years	NISR
66	Proportion of targeted population who received MDA	0	0	0	0	1	Administrative	HMIS	Annually	MoH
67	Prevalence of soil transmitted helminthiasis (STH)	0	0	0	0	1	Administrative	Mapping report	Annually	MoH
68	Prevalence of Schistosomiasis (SCH)	0	0	0	0	1	Administrative	Mapping report	Annually	MoH
69	Percentage of NCD combined high risk factors in the population aged between 15-64 years	0	0	0	0	1	Administrative	STEP Survey	Annually	MoH
70	Percentage of reduction of premature mortality (under 40 years old) due to NCDs (cancer, HTA, diabetes)	0	0	0	0	1	Administrative	CVRS/Annual Statistical Booklet	Annually	MoH
71	Percentage of reduction of premature mortality (under 40 years old) due to NCDs due to road traffic accidents (RTA) as the leading cause in non-intentional injuries	0	0	0	0	1	Administrative	CVRS/Annual Statistical Booklet	Annually	MoH
72	Teeth and gum diseases morbidity rate at health facility level	0	0	0	0	1	Administrative	HMIS	Annually	MoH
73	Eye diseases problem morbidity rate at health facility level	0	0	0	0	1	Administrative	HMIS	Annually	MoH

SN	Indicator	SDG	AU2063	EAC 2050	NST2	SSP	Data Types	Data source	Frequency	Responsible institution
74	Prevalence of Uncorrected refractive Error disaggregated by age, sex and socioeconomic status	0	0	0	0	1	Administrative	HMIS	Annually	MoH
75	Cataract Surgical Rate (number of cataract surgeries per million population per year)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
76	Age-standardized prevalence of current tobacco use among persons aged 15 years and older (outcome)	0	0	0	0	1	Administrative	RDHS	Annually	MoH
77	Age-standardized prevalence of overweight and obesity in persons aged 18+ years	0	0	0	0	1	Administrative	STEP Survey	Annually	MoH
78	Proportion of new cases treated in health facilities (HC+DH+PH+RH) for mental disorders	0	0	0	0	1	Administrative	HMIS	Annually	MoH
79	Percentage of Health centers without water	0	0	0	0	1	Administrative	HMIS	Annually	MoH
80	% Public Health Facilities (RH, PH, DH and HC) with effective waste management systems according to MOH / WHO standards	0	0	0	0	1	Administrative	HMIS	Annually	MoH
81	Proportion of outbreaks with a case fatality rate below recommended thresholds	0	0	0	0	1	Administrative	HMIS	Annually	MoH
82	International Health Regulations (IHR) core capacity index	0	0	0	0	1	Administrative	Joint External Evaluation Report (JEE)	Annually	MoH
83	Percentage of the population satisfied with health services	0	0	0	0	1	Administrative	RGB Score Card	Annually	RGB
84	Independent accreditation body in place and functional	0	0	0	0	1	Administrative	HMIS	Annually	MoH
85	% Malpractice cases assessed and addressed	0	0	0	0	1	Administrative	HMIS	Annually	MoH
86	Number of National referral and teaching Hospitals accredited	0	0	0	0	1	Administrative	HMIS	Annually	MoH
87	Number of newly upgraded referral hospitals that have achieved level three of the national accreditation process	0	0	0	0	1	Administrative	HMIS	Annually	MoH
88	Number of Provincial Hospitals that have achieved level three of the national accreditation process	0	0	0	0	1	Administrative	HMIS	Annually	MoH
89	Number of DH that have achieved level two of the national accreditation process	0	0	0	0	1	Administrative	HMIS	Annually	MoH
90	Number of laboratories reaching 5-star (Five Star) accreditation	0	0	0	0	1	Administrative	HMIS	Annually	MoH
91	% Private HFs (polyclinics and hospitals) enrolled and pursuing level 1 of accreditation process	0	0	0	0	1	Administrative	HMIS	Annually	MoH
92	Doctor/pop ratio (GP and Specialists as well)	0	0	0	0	1	Administrative	Health Professional Bodies	Annually	MoH
93	Nurse/pop ratio	0	0	0	0	1	Administrative	Health Professional Bodies	Annually	MoH
94	Midwife/pop ratio (women aged from 15-49)	0	0	0	0	1	Administrative	Health Professional Bodies	Annually	MoH
95	Pharmacist /pop ratio	0	0	0	0	1	Administrative	Health Professional Bodies	Annually	MoH
96	Lab Technicians /pop ratio	0	0	0	0	1	Administrative	Health Professional Bodies	Annually	MoH
97	Doctor attrition rate	0	0	0	0	1	Administrative	Survey	Annually	MoH
98	Number of sectors without a health center	0	0	0	0	1	Administrative	HMIS	Annually	MoH
99	Number of health posts constructed/rehabilitated in a cell previously without any other health post	0	0	0	0	1	Administrative	HMIS	Annually	MoH
100	Number of super specialized health facilities (to reduce the referrals abroad and promote medical tourism)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
101	Surgical procedures per 100,000 population	0	0	0	0	1	Administrative	HMIS	Annually	MoH
102	Peri-operative mortality rate (due to surgical procedure)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
103	Ratio ground ambulance / population	0	0	0	0	1	Administrative	HMIS	Annually	MoH
104	Average time to walk to a nearby HF (in minutes)	0	0	0	0	1	Survey	EICV	3 years	NISR

SN	Indicator	SDG	AU2063	EAC 2050	NST2	SSP	Data Types	Data source	Frequency	Responsible institution
105	Number of hospitals with functional basic maintenance system (trained manpower, available tools and space for operations)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
106	Number of referral hospitals with functional telemedicine facilities	0	0	0	0	1	Administrative	HMIS	Annually	MoH
107	Percentage of health centers without electricity (not connected to a nearby grid)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
108	Percentage of Health centers with functional internet and local area network connectivity	0	0	0	0	1	Administrative	HMIS	Annually	MoH
109	National Service availability readiness score (including emergency services)	0	0	0	0	1	Administrative	ISS/SARA Reports	Annually	MoH
110	% of health products and health technologies available at the Central Medical Warehouse	0	0	0	0	1	Administrative	e-LMIS Report	Annually	MoH
111	% HFs with < 5% of medical products stock-outs	0	0	0	0	1	Administrative	e-LMIS Report	Annually	MoH
112	% Causes of deaths are reported according to ICD10	0	0	0	0	1	Administrative	HMIS	Annually	MoH
113	% Births registered according to the CRVS	0	0	0	0	1	Administrative	CRVS	Annually	MoH
114	% of public health facilities (DH, PH and RH) using EMR full package system	0	0	0	0	1	Administrative	CRVS	Annually	MoH
115	% Private HF (dispensaries, clinics, polyclinics and hospitals) regularly reporting through national data collection systems (DHIS-2 and e-IDSR)	0	0	0	0	1	Administrative	HMIS	Annually	MoH
116	% Household expenditure on health as a share of total household income	0	0	0	0	1	Administrative	EICV, HRTT Report	Annually	MoH
117	Proportion of population covered by health insurance	0	0	0	0	1	Administrative	EICV and HRTT Report	Annually	MoH
118	Percentage of NCD combined high risk factors in the population aged between 15-64 years	0	0	0	0	1	Administrative	STEP Survey	Annually	MoH
119	Percentage of reduction of premature mortality (under 40 years old) due to NCDs (cancer, HTA and diabetes)	0	0	0	0	1	Administrative	CVRS/Annual Statistical Booklet	Annually	MoH
120	Percentage of reduction of premature mortality (under 40 years old) due to NCDs due to road traffic accidents (RTA) as the leading cause in non-intentional injuries	0	0	0	0	1	Administrative	CVRS/Annual Statistical Booklet	Annually	MoH
121	Percentage of infants born to HIV + mothers free from HIV by 18 months	0	0	0	0	1	Administrative	HMIS/Annual Statistical Booklet	Annually	MoH

Annex 9: List of indicators in the ICT sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data types	Data source	Frequency	Responsible Institution
1	Proportion of youth and adults with information and communications technology (ICT) skills, by skill	1	0	0	0	0	Survey	EICV	3 years	NISR
2	Proportion of individuals who own a mobile telephone, by sex	1	0	0	0	0	Survey	EICV	3 years	NISR
3	Proportion of population covered by a mobile network, by technology	1	0	1	0	0	Administrative	MINICT Records	Annually	MINICT
4	Fixed Internet broadband subscriptions per 100 inhabitants, by speed	1	0	0	0	0	Administrative	Records of the RURA, MINICT	Annually	RURA
5	Proportion of individuals using the Internet	1	0	0	0	0	Survey	EICV	3 years	NISR
6	Internet penetration rate	0	1	0	0	1	Survey	EICV	3 years	NISR
7	Mobile penetration rate	0	1	0	0	1	Survey	EICV	3 years	NISR

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data types	Data source	Frequency	Responsible Institution
8	Percentage of ICT contribution to GDP	0	1	0	0	1	Survey	National Account	1 year	NISR
9	Percentage increase in broadband accessibility	0	1	0	0	0	Administrative	Admin	Annually	RURA
10	Percentage of digital literacy	0	0	0	1	1	Survey	EICV Survey	3 years	NISR
11	Mobile-broadband internet subscriptions	0	0	0	1	1	Administrative	MINICT Reports and RURA	Annually	RURA
12	ICT Development Index	0	0	0	0	1	Administrative	GITR	Annually	GITR
13	E-Government Index	0	0	0	0	1	Administrative	GITR	Annually	GITR
14	Network Readiness Index	0	0	0	0	1	Administrative	GITR	Annually	GITR
15	Global Competitiveness Development Index	0	0	0	0	1	Administrative	GITR	Annually	GITR
16	% Of ICT Contribution to GDP	0	0	0	0	1	Administrative	Admin	Annually	MINICT
17	Number of new Technology Companies valued between 100K- One Million USD in Rwanda	0	0	0	0	1	Administrative	Admin	Annually	MINICT
18	Number of new Technology Companies valued between one Million – Twenty Million USD in Rwanda	0	0	0	0	1	Administrative	Admin	Annually	MINICT
19	Number of new Technology Companies valued at over $20 Million in Rwanda (including FDIs)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
20	Percentage of business/companies participating in e-commerce	0	0	0	0	1	Administrative	Admin	Annually	MINICT
21	ICT Export as % to total export	0	0	0	0	1	Administrative	Admin	Annually	MINICT
22	ICT Capital Investment (Amount in Millions USD)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
23	ICT jobs as % of formal total employment	0	0	0	0	1	Administrative	Admin	Annually	MINICT
24	Number of jobs created through BPO	0	0	0	0	1	Administrative	Admin	Annually	MINICT
25	Number of Elite IT professional	0	0	0	0	1	Administrative	Admin	Annually	MINICT
26	Percentage graduates with ICT professional certificates by gender	0	0	0	0	1	Administrative	Admin	Annually	MINICT
27	Percentage Elite IT professional owning commercialized Innovation, IT operational Business company, jobs	0	0	0	0	1	Administrative	Admin	Annually	MINICT
28	ICT labor productivity (FRW/hour; Av or Med)- 11,969Frw: OECD Av (2015)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
29	School with smart classroom as % of total schools (internet, computer and digital content)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
30	Fully digitized services as % of total online services	0	0	0	0	1	Administrative	Admin	Annually	MINICT
31	Percentage of Public Institutions connected to 4G or faster Internet (Education, Health, Justice, Local Government)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
32	Percentage of digitized services out of total services	0	0	0	0	1	Administrative	Admin	Annually	MINICT
33	Percentage of government Integration and interoperability	0	0	0	0	1	Administrative	Admin	Annually	MINICT
34	Percentage of websites that use the .RW domain hosted in Rwanda	0	0	0	0	1	Administrative	Admin	Annually	MINICT
35	Percentage of MIS integrated with GCC	0	0	0	0	1	Administrative	Admin	Annually	MINICT
36	Percentage of ICT projected managed and updated into Smart Dashboard/Automation	0	0	0	0	1	Administrative	Admin	Annually	MINICT
37	% Of public institutions using electronic signature (PKI)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
38	Proportion of smart phone as % of mobile subscribers	0	0	0	0	1	Administrative	Admin	Annually	MINICT
39	Cost of broadband access as a percentage of average monthly GNI per capita (average monthly income)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
40	% Of Households with access to high-speed internet	0	0	0	0	1	Administrative	Admin	Annually	MINICT
41	% Of citizens with digital single ID	0	0	0	0	1	Administrative	Admin	Annually	NIDA

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data types	Data source	Frequency	Responsible Institution
42	% Of Smart buses	0	0	0	0	1	Administrative	Admin	Annually	RDB
43	Number of innovation Centers established	0	0	0	0	1	Administrative	Admin	Annually	MINICT
44	Number of innovations (intellectual property/patent) commercialized	0	0	0	0	1	Administrative	Admin	Annually	MINICT
45	Value of electronic payment as % of GDP	0	0	0	0	1	Administrative	Admin	Annually	MINICT
46	Smart households as % of total households in cities	0	0	0	0	1	Administrative	Admin	Annually	MINICT
47	Amount earned from digital exports ('000s' USD)	0	0	0	0	1	Administrative	Admin	Annually	MINICT
48	Total sales from ICT local manufacturing-Million in USD	0	0	0	0	1	Administrative	Admin	Annually	MINICT
49	Number of highly skilled people in cyber-security	0	0	0	0	1	Administrative	Admin	Annually	MINICT

Annex 10: List of indicators in the Justice Reconciliation Law and Order sector and their sources

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	Data source	Frequency	Responsible institution
1	Suicide mortality rate	1	0	0	0	0	CRVS	Annual	MOH
2	Death rate due to road traffic injuries	1	0	0	0	0	CRVS	Annual	MoH, MINIJUST, RNP
3	Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	1	1	0	0	0	Administrative	Annual	MINIJUST
4	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence	1	0	0	0	0	DHS	5 years	NISR
5	Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18	1	0	0	0	0	DHS	5 years	NISR
6	Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	1	0	0	0	1	Administrative	Annual	MINIJUST
7	Number of victims of intentional homicide per 100,000 population, by sex and age	1	0	0	0	1	Administrative	Annual	MINIJUST
8	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	1	0	0	0	1	DHS	5 years	NISR
9	Proportion of population that feel safe walking alone around the area they live	1	0	0	0	0	Score card report	Annual	RGB
10	Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month	1	0	0	0	0	Administrative	Annual	RIB
11	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	1	0	0	0	0	Administrative	Annual	MINIJUST
12	Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18	1	0	0	0	0	DHS	5 years	NISR
13	Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms	1	0	0	0	1	Administrative	Annual	RNP, GMO
14	Unsentenced detainees as a proportion of overall prison population	1	0	0	0	1	Administrative	Annual	Admin data from JRLOS, RNP
15	Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months	1	0	0	0	1	Administrative	Annual	Office of the Ombudsman; RGB
16	Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months	1	0	0	0	0	Administrative	Annual	OMBUDSMAN/RDB/MINEACOM; RGB
17	Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months	1	0	0	0	0	Administrative	Annual	MINIJUST
18	Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information	1	0	0	0	0	Administrative	Annual	MINIJUST
19	Existence of independent national human rights institutions in compliance with the Paris Principles	1	0	0	0	0	Administrative	Annual	MINIJUST
20	Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics	1	0	0	0	0	Administrative	Annual	NISR
21	Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration	1	0	0	0	0	Administrative	Annual	NISR
22	1. No. of laws enacted/Protocols signed (National)	0	1	0	0	0	Administrative	Annual	MINIJUST
23	2. No of countries within the RECs that domesticated laws/protocols (Regional)	0	1	0	0	0	Administrative	Annual	MINIJUST
24	3. Number of obstacles on free movement of persons and goods and services reported	0	1	0	0	0	Administrative	Annual	MINIJUST
25	1. Percentage of citizens who believe that the judiciary is independent,	0	1	0	0	0	Score card report	Annual	RGB
26	2. Percentage of citizens who believe that the judicial system renders righteous judgments						Score card report	Annual	RGB

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	Data source	Frequency	Responsible institution
27	% Of people who perceive they have free access to justice	0	1	0	0	0	Score card report	Annual	RGB
28	1. Percentage of citizens who believe that the culture of respect for human rights is rooted,	0	1	0	0	0	Score card report	Annual	RGB
29	2. Percentage of citizens who believe that the rule of law is established	0	1	0	0	0	Score card report	Annual	RGB
30	3. Percentage of citizens who believe that procedures are followed.	0	1	0	0	0	Score card report	Annual	RGB
31	Percentage of citizens who recognize that utilities are professionals (effective, responsive, accountable, impartial and honest)	0	1	0	0	0	Score card report	Annual	RGB
32	Proportion of the population who acknowledge the relevance and good functioning of the legislature as a key component of the democracy	0	1	0	0	0	Administrative	Annual	OMBUDSMAN
33	The number of local conflicts that occurred in a year	0	1	0	0	0	Administrative	Annual	RNP
34	The number of conflicts emanating from ethnicity, all forms of exclusion, religious and political difference	0	1	0	0	0	Administrative	Annual	RNP
35	Number of armed conflicts	0	1	0	0	0	Administrative	Annual	RNP
36	Number of children who are victims of human trafficking per 100 000 people	0	1	0	0	0	Administrative	Annual	RNP
37	Number of reported cases of violence by intimate or non-intimate partner	0	1	0	0	0	Score card report	Annual	RGB
38	% Of law enforcement officers and judicial personnel trained to adequately deal with issues of discrimination against women and girls	0	1	0	0	0	Administrative	Annual	MINIJUST
39	Number of reported cases, amendment of laws	0	1	0	0	0	Administrative	Annual	MINIJUST
40	Percentage of population with confidence in safety and security	0	0	0	1	1	Score card report	Annual	RGB
41	The level of citizen satisfaction with property security	0	0	0	1	1	Score card report	Annual	RGB
42	Performance of Judiciary increased	0	0	0	1		Administrative	Annual	JRLO Sector
43	Percentage of backlog cases reduced	0	0	0	1	1	Administrative	Annual	JRLO Sector
44	Percentage of citizens satisfaction with fighting corruption and injustice	0	0	0	1	1	Score card report	Annual	RGB
45	Rate of public fund recovered	0	0	0	1	1	Administrative	Annual	MINIJUST
46	Proportion of population with confidence in the control of corruption, transparency and accountability	0	0	0	1	1	Score card report	Annual	RGB
47	Rate of overturned judgments reduced	0	0	0	0	1	Administrative	Annual	MINIJUST
48	Performance of the Prosecution increased	0	0	0	0	1	Administrative	Annual	MINIJUST
49	% of criminal cases (human trafficking, terrorism, SGBV cases; corruption cases, drugs abuse and trafficking; genocide ideology & denial cases) prosecuted and convicted disaggregated by type, gender and age	0	0	0	0	1	Administrative	Annual	MINIJUST
50	Number of genocide fugitives' cases handled	0	0	0	0	1	Administrative	Annual	MINIJUST
51	Number of extradition treaties negotiated and signed	0	0	0	0	1	Administrative	Annual	MINIJUST
52	Rate of cases closed by NPPA due to the lack of evidence against those submitted by RIB	0	0	0	0	1	Administrative	Annual	MINIJUST
53	Level of satisfaction (arrest and detention)	0	0	0	0	1	Administrative	Annual	MINIJUST
54	Level of access to legal aid (KPI)	0	0	0	0	1	Administrative	Annual	MINIJUST
55	Level of satisfaction for access to legal aid	0	0	0	0	1	Score card report	Annual	RGB
56	Increase of cases (disaggregated by gender, disability , age and type) received by MAJ	0	0	0	0	1	Administrative	Annual	MINIJUST

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	Data source	Frequency	Responsible institution
57	Number of legal aid cases duly assisted and represented by RBA disaggregated by gender, age and type.	0	0	0	0	1	Administrative	Annual	MINIJUST
58	Number of legal aid cases duly assisted and referred by CSOs	0	0	0	0	1	Administrative	Annual	MINIJUST
59	Number of legal aid cases duly enforced by professional bailiffs	0	0	0	0	1	Administrative	Annual	MINIJUST
60	Disposal pace to try vulnerable people (children, persons with disability, breastfeeding and pregnant women) related criminal cases	0	0	0	0	1	Administrative	Annual	MINIJUST
61	Number of specialized criminal justice actors in juvenile justice disaggregated by judges, prosecutors, lawyers, police officers and prison staff	0	1	0	0	1	Administrative	Annual	MINIJUST
62	Number of cases of minors handled in full compliance with child friendly justice standards	0	0	0	0	1	Administrative	Annual	MINIJUST
63	% of cases handled by Abunzi committees at both sector and cell level (KPI indicator)	0	0	0	0	1	Administrative	Annual	MINIJUST
64	Rate of Abunzi decisions appealed to courts	0	0	0	0	1	Administrative	Annual	MINIJUST
65	% Of Abunzi decisions overturned by courts	0	0	0	0	1	Administrative	Annual	MINIJUST
66	% Of Abunzi decisions overturned by Abunzi appeal level	0	0	0	0	1	Administrative	Annual	MINIJUST
67	Level of citizen's satisfaction with Abunzi performance	0	0	0	0	1	Score card report	Annual	RGB
68	Number of cases processed through KIAC	0	0	0	0	1	Administrative	Annual	MINIJUST
69	% Of awards from KIAC Arbitrators' set aside by court (compared to the awards taken to court)	0	0	0	0	1	Administrative	Annual	MINIJUST
70	% In number of cases disaggregated by gender and age receiving alternative penalties from a judge	0	0	0	0	1	Administrative	Annual	MINIJUST
71	% Of eligible cases in which Prosecution requested for alternative penalties compared to total eligible cases.	0	0	0	0	1	Administrative	Annual	MINIJUST
72	Level of citizen's satisfaction with the quality of laws.	0	0	0	0	1	Administrative	Annual	MINIJUST
73	% Of Existing Rwandan Laws Revised	0	0	0	0	1	Administrative	Annual	MINIJUST
74	Level of citizens including non-State actors' satisfaction with their involvement in law-making and review processes	0	0	0	0	1	Score card report	Annual	RGB
75	Rate of judgments executed within the required legal timeline	0	0	0	0	1	Administrative	Annual	MINIJUST
76	Level of citizen's satisfaction with execution of court decisions	0	0	0	0	1	Administrative	Annual	MINIJUST
77	Level of citizen's satisfaction with CPCs	0	0	0	0	1	Score card report	Annual	RGB
78	Level of citizen's satisfaction of personal security disaggregated by gender and age	0	0	0	1	1	Score card report	Annual	RGB
79	Number of Community Policing Committee members trained, and anti-crime clubs established and sensitized	0	0	0	0	1	Administrative	Annual	MINIJUST
80	Number of Joint Targeted operations by RNP and RDF to detect drugs	0	0	0	0	1	Administrative	Annual	MINIJUST
81	Number of SGBV victims disaggregated by age, sex and settings reported, handled by the prosecution and convicted	0	0	0	0	1	Administrative	Annual	RNP
82	Response time to critical incidence.	0	0	0	0	1	Administrative	Annual	RNP
83	Number of investigators trained	0	0	0	0	1	Administrative	Annual	RIB
84	Number of modern Police Stations constructed	0	0	0	0	1	Administrative	Annual	RNP
85	Level of construction and operationalization of Automated Driving License Testing Centre (ADLTC) constructed	0	0	0	0	1	Administrative	Annual	RNP
86	Accommodation space of inmates per inmate maintained	0	0	0	0	1	Administrative	Annual	RCS
87	Sleeping space in prison per inmate	0	0	0	0	1	Administrative	Annual	RCS

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	Data source	Frequency	Responsible institution
88	Number of inmates with standard BMI disaggregated by category	0	0	0	0	1	Administrative	Annual	RCS
89	Number of prisons where convicts and non-convicts are detained separately.	0	0	0	0	1	Administrative	Annual	RCS
90	% Of juveniles living in prisons equipped with minor friendly facilities	0	0	0	0	1	Administrative	Annual	RCS
91	% Of children accompanying their mother accessing special need services	0	0	0	0	1	Administrative	Annual	RCS
92	% Pregnant and Breastfeeding mothers benefiting from special need services	0	0	0	0	1	Administrative	Annual	RCS
93	% Of inmates with disabilities living in prisons with disability friendly facilities.	0	0	0	0	1	Administrative	Annual	RCS
94	% of inmates benefiting from correctional and rehabilitation programs including psychosocial support disaggregated by age and gender	0	0	0	0	1	Administrative	Annual	RCS
95	Cumulative Percentage of construction works of RCS Headquarters.2	0	0	0	0	1	Administrative	Annual	MINIJUST
96	Cumulative Percentage of construction of RCS Training School.	0	0	0	0	1	Administrative	Annual	MINIJUST
97	Number of research conducted on genocide perpetrated against Tutsi	0	0	0	0	1	Administrative	Annual	MINIJUST
98	% Of genocide proof conservation modernized	0	0	0	0	1	Administrative	Annual	MINIJUST
99	Number of Gacaca documents /files digitized and indexed.	0	0	0	0	1	Administrative	Annual	MINIJUST
100	Number of genocide ideology cases decreased.	0	0	0	0	1	Administrative	Annual	MINIJUST
101	Proportion of population with confidence in the control of corruption, transparency and accountability	0	0	0	0		Score card report	Annual	RGB
102	% Of citizens reporting personal experience of corruption	0	0	0	0	1	Score card report	Annual	RGB
103	Reduction of corruption, court judgement review and injustice backlog cases in the Office of Ombudsman.	0	0	0	0	1	Administrative	Annual	OMBUDSMAN
104	Conviction rate in prosecuting financial and economic crimes	0	0	0	0	1	Administrative	Annual	MINIJUST
105	Conviction rate of public officials who cause loss to the Government	0	0	0	0	1	Administrative	Annual	MINIJUST
106	% Of public officials whose declared assets are verified	0	0	0	0	1	Administrative	Annual	OMBUDSMAN
107	% Of legal opinions/Advice Provided to public institutions	0	0	0	0	1	Administrative	Annual	MINIJUST
108	% Of recommendations related to transparency and accountability implemented	0	0	0	0	1	Administrative	Annual	OMBUDSMAN
109	Status of Unity and reconciliation among Rwandan (RRB)	0	0	0	0	1	Administrative	Annual	MINIJUST
110	% Of Rwandans that judge each other based on ethics stereotypes	0	0	0	0	1	Rwanda Reconciliation Barometer Report	Annual	MINIJUST
111	Level of individual proudness of a shared identity	0	0	0	0	1	Administrative	Annual	MINIJUST
112	Level of trust among Rwandans	0	0	0	0	1	Administrative	Annual	MINIJUST
113	Level of fairness, equal rights and opportunities	0	0	0	0	1	Administrative	Annual	MINIJUST
114	Proportion of Population with confidence in respect of Human Rights	0	0	0	0	1	Score card report	Annual	RGB
115	Level of implementation of the 2015 UPR recommendations (accepted by Rwanda)	0	0	0	0	1	Administrative	Annual	MINIJUST
116	Number of UN international Human rights Conventions ratified against total number of conventions to be ratified	0	0	0	0	1	Administrative	Annual	MINIJUST
117	Rate of implementation of recommendations from treaty bodies	0	0	0	0	1	Administrative	Annual	MINIJUST
118	Rate of implementation of recommendations from NHRC as an oversight institution	0	0	0	0	1	Administrative	Annual	NHRC

SN	Indicator	SDG	AU2063	EAC2050	NST2	SSP	Data source	Frequency	Responsible institution
119	Number of duty bearers and rights holders sensitized and trained on human rights disaggregated by gender and age.	0	0	0	0	1	Administrative	Annual	NHRC
120	% Of cases of Human Rights violations addressed against those reported disaggregated by gender, age and region	0	0	0	0	1	Administrative	Annual	NHRC
121	Disposal rate in handling SGBV cases	0	0	0	0	1	Administrative	Annual	MINIJUST
122	Level of NHAP implemented	0	0	0	0	1	Administrative	Annual	NHRC
123	Level of satisfaction of service delivery in the Justice Sector	0	0	0	0	1	Score card report	Annual	RGB
124	Level of implementing Sector CDS	0	0	0	0	1	Administrative	Annual	MINIJUST
125	Level of implementing Sector communication strategy	0	0	0	0	1	Administrative	Annual	MINIJUST
126	Level of implementing Sector Change Management Strategy recommendations	0	0	0	0	1	Administrative	Annual	MINIJUST
127	Level of Implementation of JRLOS gender Strategy recommendations.	0	0	0	0	1	Administrative	Annual	MINIJUST
128	Number of ILPD graduates from public and private sector trained in DLP and DLD	0	0	0	0	1	Administrative	Annual	ILPD
129	Number of public and private sector lawyers trained in specialized courses	0	0	0	0	1	Administrative	Annual	ILPD
130	Number of public and private sector lawyers trained in critical and rare skills	0	0	0	0	1	Administrative	Annual	ILPD
131	Level of self-reliance of MUHABURA Multi choice Company Ltd	0	0	0	0	1	Administrative	Annual	MINIJUST
132	The contribution of MMC ltd to RCS self-reliance (feeding inmates)	0	0	0	0	1	Administrative	Annual	MINIJUST
133	ILPD Self reliance	0	0	0	0	1	Administrative	Annual	ILPD
134	Number of civil society organization registered in the sector and contributing actively to various thematic working groups of the JRLOS	0	0	0	0	1	Administrative	Annual	MINIJUST
135	Number of trainees from the RBA, Professional bailiffs and the civil society, media benefiting from capacity building training disaggregated by gender.	0	0	0	0	1	Administrative	Annual	MINIJUST
136	Number of consultation forums/symposiums held bringing together all justice sector chain actors from GoR and stakeholders to build mutual trust and shared vision.	0	0	0	0	1	Administrative	Annual	MINIJUST

Annex 11: List of indicators in the Private Sector Development and Youth Employment sector and their sources

SN	Indicator	SDG	AU2063	EAC2050	NST 2	SSP	Data type	Data source	Frequency	Responsible institution
1	Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff	1	0	0	0	0	Administrative	Annual Report	Annually	RRA
2	Proportion of traded wildlife that was poached or illicitly trafficked	1	0	0	0	0	Administrative	Annual Report	Annually	RDB
3	Developing countries and least developed countries share of global exports	1	0	0	0	0	Administrative	Annual Report	Annually	BNR
4	Proportion of time spent on unpaid domestic and care work, by sex, age and location	1	0	0	0	0	Survey	LFS	Annually	NISR
5	Proportion of informal employment in non-agriculture employment, by sex	1	0	0	0	0	Survey	LFS	Annually	NISR
6	Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	1	0	0	0	0	Survey	LFS	Annually	NISR
7	Unemployment rate, by sex, age and persons with disabilities	1	1	1	0	0	Survey	LFS	Annually	NISR
8	Proportion of youth (aged 15-24 years) not in education, employment or training	1	0	0	0	0	Survey	LFS	Annually	NISR
9	Proportion and number of children aged 5-17 years engaged in child labor, by sex and age	1	1	0	0	0	Survey	LFS	Annually	NISR
10	Manufacturing value added as a proportion of GDP and per capita	1	1	0	0	0	Survey	LFS	Annually	NISR
11	Manufacturing employment as a proportion of total employment	1	0	0	0	0	Survey	LFS	Annually	NISR
12	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status	1	0	0	0	0	Administrative	Annual Report	Annually	MIFOTRA
13	Tourism direct GDP as a proportion of total GDP and in growth rate	1	1	0	0	0	Administrative	Annual Report	Annually	RDB
14	Proportion of small-scale industries in total industry value added	1	0	0	0	0	Administrative	Annual Report	Annually	MINICOM
15	Proportion of small-scale industries with a loan or line of credit	1	0	0	0	0	Administrative	Annual Report	Annually	BNR
16	Proportion of medium and high-tech industry value added in total value added	1	0	0	0	0	Administrative	Annual Report	Annually	MINICOM
17	Labour share of GDP, comprising wages and social protection transfers	1	0	0	0	0	Administrative	Annual Report	Annually	MINECOFIN
18	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	1	0	0	0	0	Administrative	Annual Report	Annually	MINICOM
19	Number of PPP and civil society partnership projects	0	1	0	0	0	Administrative	Annual Report	Annually	MINECOFIN
20	% Share of total output received from extractive sector industries owned by locals	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
21	% Of food imported	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
22	% Contribution of the creative arts to GDP in real terms increased	0	1	0	0	0	Survey	National Account	Annually	NISR
23	Rate of increase of intra-African trade volume per annum	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
24	% Increase of intra-Africa trade in agriculture commodities	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
25	% Of informal sector ventures graduating into Formal Enterprises	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
26	Underemployment rate by age, sex	0	1	0	0	0	Survey	LFS	Annually	NISR
27	Proportion of employed people living below the minimum wage	0	1	0	0	0	Survey	LFS	Annually	NISR
28	% share of total output received from non-extractive sector industries owned by locals	0	1	0	0	0	Survey	National Account	Annually	NISR
29	% Increase of intra-Africa trade in service	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
30	Number of commodities exchanges established	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
31	% Increase of the coastal tourism financing the development of the programs of the communities	0	1	0	0	0	Administrative	Annual Report	Annually	RDB
32	1. % of tariff lines liberalized within African states	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM

SN	Indicator	SDG	AU2063	EAC2050	NST 2	SSP	Data type	Data source	Frequency	Responsible institution
33	2. Number of Non-tariff barriers (NTBs) reported and eliminated	0	1	0	0	0	Administrative	Annual Report	Annually	MINICOM
34	Proportion of business start-ups by youth by formal/informal and by industry	0	1	0	0	0	Survey	IBES	Annually	NISR
35	Proportion of Youth and Children engaged in talent-based development programs, leisure and recreation	0	1	0	0	0	Administrative	Annual Report	Annually	MINIYOUTH
36	Finished and semi-finished products as a proportion of total exports	0	1	0	0	0	Administrative	Annual Report	Annually	BNR
37	Export diversification index (by product; by market, by destination (intra and intercontinental)	0	1	0	0	0	Administrative	Annual Report	Annually	BNR
38	Resources raised through innovative financing mechanisms as a % of national budget	0	1	0	0	0	Administrative	Annual Report	Annually	RDB
39	Manufactured Export (as % of total Export)	0	0	1	0	1	Administrative	Annual Report	Annually	MINICOM
40	FDI net inflows (% of GDP)	0	0	1	0	1	Administrative	Annual Report	Annually	BNR
41	Food production (million metric tons)	0	0	1	0	0	Administrative	Annual Report	Annually	NAEB
42	Number of new decent and productive jobs created	0	0	0	1	0	Survey	LFS	Annually	NISR
43	Annual export growth	0	0	0	1	0	Survey	National Account	Annually	NISR
44	Value of exports	0	0	0	1	0	Survey	National Account	Annually	NISR
45	Exports of goods and Services as a percentage of GDP.	0	0	0	1	0	Survey	National Account	Annually	NISR
46	Industry as share of GDP	0	0	0	1	0	Survey	National Account	Annually	NISR
47	Value of tourism revenues	0	0	0	1	0	Administrative	Annual Report	Annually	RDB
48	Value of MICE revenues	0	0	0	1	0	Administrative	Annual Report	Annually	RDB
49	Annual exports growth	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM
50	Services share of total exports	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM
51	Private Investment as share of GDP*	0	0	0	0	1	Survey	National Account	Annually	NISR
52	Credit to SMEs as share of GDP	0	0	0	0	1	Survey	National Account	Annually	NISR
53	Number of active firms, older than two years with four or more employees, dis-aggregated by gender of owner	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM
54	Total factor Productivity (TFP)	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM
55	R&D expenditure as share of GDP	0	0	0	0	1	Survey	National Account	Annually	NISR
56	Off-farm jobs created annually, disaggregated by gender	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM
57	Labour productivity in off-farm sectors	0	0	0	0	1	Administrative	Annual Report	Annually	MINICOM

Annex 12: List of indicators in the Social Protection sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data source	Frequency	Responsible institution
1	Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)	1	0	0	0	0	EICV	3 years	MINALOC
2	Proportion of population living below the national poverty line, by sex and age	1	0	0	0	1	EICV	3 years	NISR
3	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1	0	0	0	0	EICV	3 years	NISR
4	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	1	1	0	0	1	Annual report	Annual	MINALOC
5	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population	1	0	0	0	0	EICV	3 Years	NISR
6	Proportion of formal sector workers covered by the national social protection programme	0	1	0	0	0	ADMIN	annual	MINALOC
7	Proportion of eligible informal sector workers and rural labour covered by the national social protection programme	0	1	0	0	0	ADMIN	annual	MINALOC
8	Percentage of the population living below extreme poverty line	0	0	0	1	1	EICV	3 Years	NISR
9	% Of social protection beneficiary households demonstrating a significant improvement in socio-economic status	0	0	0	0	1	Social Registry Information System	annually	MINALOC
10	Number of extremely poor child headed HHs accessing social protection	0	0	0	0	1	MEIS, LODA	annually	MINALOC
11	% of PwDs covered by social protection	0	0	0	0	1	JSR reports	annually	MINALOC
12	Number workers enrolled in voluntary long-term savings scheme	0	0	0	0	1	JSR reports	annually	MINALOC
13	Number of extremely poor mothers and infants in first the 1,000 days benefitting from nutrition-sensitive Child Support Grant	0	0	0	0	1	LODA annual report	annually	MINALOC
14	Number of households in crisis provided with other short-term social assistance (temporary financial assistance, shelter, health fees, etc.)	0	0	0	0	1	MINALOC, LODA, RDRC, FARG reports	annually	MINALOC
15	% Of VUP cPW expenditure contributing to Disaster Risk Reduction	0	0	0	0	1	LODA annual reports	annually	MINALOC
16	Number of PwDs with access to rehabilitation support services	0	0	0	0	1	Report from Annual Orthopedic and Rehab Centers	annually	MINALOC
17	Number of vulnerable children/youths benefitting from NRS rehabilitation and reintegration services	0	0	0	0	1	NRS annual reports	annually	MINALOC
18	% Of children in orphanages integrated into families	0	0	0	0	1	NCDA annual reports	annually	MINALOC
19	%. of eligible social protection beneficiary households receiving asset transfers under MPG framework	0	0	0	0	1	Social Registry Information System	annually	MINALOC
20	Number of community-based projects implemented under Ubudehe programme	0	0	0	0	1	LODA MEIS/reports	annually	LODA, Local gov
21	% Of extremely poor households who are members of a community savings group/VSLA	0	0	0	0	1	SP sector household profiling system	annually	MINALOC
22	Number of extremely poor and vulnerable individuals receiving formal skills training and apprenticeships	0	0	0	0	1	JSR	annually	MINALOC
23	Number of studies/evaluations conducted through SPSWG and disseminated	0	0	0	0	1	JSR reports	annually	MINALOC
24	% Of Sectors and Cells with dedicated Social Protection staff (SEDOs and SPOs)	0	0	0	0	1	JSR reports	annually	MINALOC
25	% Of social protection beneficiaries satisfied with quality of services	0	0	0	0	1	RGB Rwanda Citizens Report Card	annually	MINALOC
26	% Of households in Ubudehe category 1 with a performance contract	0	0	0	0	1	LODA	annually	MINALOC
27	% Of core social protection programme payments delivered on-time	0	0	0	0	1	JSR	annually	MINALOC
28	Number of formal partnerships between districts and CSOs on social protection	0	0	0	0	1	District reports	annually	MINALOC
29	% Of formal complaints (in MEIS and CMS) resolved within the approved time period	0	0	0	0	1	MEIS, LODA	annually	MINALOC
30	Number of poor and vulnerable households supported through HGS (e.g., Umuganda and Kuremera, Urugerero)	0	0	0	0	1	District reports	annually	MINALOC

Annex 13: List of indicators in the Sport & Culture sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
1	Proportion of citizens appreciate the creative arts	0	1	0	0	0	Administrative	special survey	Unspecified	Unspecified
2	Proportion of local content used in print and electronic productions and media	0	1	0	0	0	Administrative	Admin	Unspecified	Unspecified
3	Number of MDAs established in a country for the promotion of creative art businesses	0	1	0	0	0	Administrative	special survey	Unspecified	Unspecified
4	Existence / Establishment of fora to encourage inter-generational dialogue and cultural practices	0	1	0	0	0	Administrative	Admin	Unspecified	Unspecified
5	Proportion of cultural national treasures that are identified, are retrieved, protected, archived and valued	0	1	0	0	0	Administrative	Admin	Unspecified	Unspecified
6	Number of museums	0	0	1	0	0	Administrative	Admin	Annually	MINISPOC
7	Participation opportunities in sports provided based on real needs	0	0	0	0	1	Administrative	Admin	Quarterly	MINISPOC, NSC
8	Provide sport activities to cater for all demographic groups in the Country	0	0	0	0	1	Administrative	Admin	Quarterly	MINISPOC
9	Schools provide formalized school sports and physical education	0	0	0	0	1	Administrative	Admin	Quarterly	MINEDUC, MINISPOC
10	Sports used to achieve wider public policy outcomes (health, mobilization for different Government programs, unity and reconciliation)	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC, NSC
11	Sports Sector providing relevant training courses to support sports in the Country	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC, NCBS
12	Parents actively engaged in supporting children participation in sports both in school and outside school	0	0	0	0	1	Administrative	special survey	Annual	MINEDUC, DISTRICTS, MINISPOC
13	Programs and activities supporting sports in early childhood learning framework in school and outside-school hours are developed	0	0	0	0	1	Administrative	Admin	Annual	MINEDUC
14	Fewer Sports Associations and community/school clubs require emergency financial assistance	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC
15	Greater use of new technologies and communication in enhancing sports and recreation experience e.g., use of social media platforms: Twitter, Facebook, SMS, WhatsApp, etc.	0	0	0	0	1	Administrative	special Study	Annual	MINISPOC, NSC
16	National Sports Centre a key part of the national high-performance system developing and producing an increase in the number of talented athletes selected for District and national teams	0	0	0	0	1	Administrative	Info system	Annual	NSC, MINISPOC
17	Talent identification and development pathways for sportsmen, sportswomen and coaches/trainers are integral in national sports development plans	0	0	0	0	1	Administrative	Info system	Annual	NSC, MINISPCO
18	Selected education Institutions identified as centers of sports excellence and integral in providing sports support services, facilities and education	0	0	0	0	1	Administrative	Admin	Annual	MINEDUC, MINISPOC
19	Cutting edge sports support services available to talented sportsmen, sportswomen and coaches	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC, NSC
20	Structured talent identification programs in schools identifying athletes, coaches and officials	0	0	0	0	1	Administrative	Admin	Annual	MINEDUC, MINISPOC
21	National teams working in close partnership with Districts with facilities fulfilling required standards	0	0	0	0	1	Administrative	Admin	Annual	NSC, MINISPOC
22	Rwanda active in hosting major regional, continental and international sports events	0	0	0	0	1	Administrative	Event/ Tournament reports	Annual	MINISPOC
23	National Sports Council is established and functional/operational	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC
24	Long term strategic sports facilities and resources plan in place underpinning the objectives of Vision 2050	0	0	0	0	1	Administrative	Admin	Annually	MINISPOC
25	Sports facilities are better planned to deal with environmental challenges – e.g., design of stadia designed to suit conditions of Rwanda terrain	0	0	0	0	1	Administrative	Admin	Annually	MINISPOC
26	Fully functional National Creative arts industries database and regular data is collected and supports planning	0	0	0	0	1	Administrative	Information system	Annual	MINISPOC, RALC
27	Community Arts Centers developed/approved and implemented	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC, RALC

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
28	Promulgation and functional Kinyarwanda Language across the Country	0	0	0	0	1	Administrative	RALC reports	Annual	MINISPOC, RALC
29	Number of Literary books produced and published in Kinyarwanda official language	0	0	0	0	1	Administrative	RALC reports	Annual	MINISPOC, RALC
30	Regular reports and publications of findings with mapping reports for each District/Province	0	0	0	0	1	Administrative	Museums reports	Annual	NATIONALMUSEUMS, MINISPOC, RALSA
31	National Creative Industries Skills academy established	0	0	0	0	1	Administrative	Annual reports	Annual	MINISPOC, NATIONAL MUSEUMS
32	National Craft policy development and coordination	0	0	0	0	1	Administrative	Museums reports	Annual	MINISPOC
33	Sustainable graduates training programs in the Arts and Craft Centre	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC
34	Implementation of Events and Technical Services Policy	0	0	0	0	1	Administrative	Admin	Annual	MUSEUMS, MINISPOC
35	Signed Bilateral and Trilateral Agreements with identified partners, strengthened and expanded continental and global partnerships	0	0	0	0	1	Administrative	Partnership Report	Annual	MINISPOC, MINAFFETE
36	Functional flow and approved Investment in Culture	0	0	0	0	1	Administrative	Admin	Annual	MINISPOC, MUSEUMS
37	Approved and implemented heritage human resources development strategy	0	0	0	0	1	Administrative	Admin	Annual	NATIONAL MUSEUMS
38	Heritage tourism strategy developed, disseminated and implemented	0	0	0	0	1	Administrative	Admin	Annual	N MUSEUMS, MINISPOC
39	Participation of Rwandan communities in the National Heritage Day	0	0	0	0	1	Administrative	Admin	Annual	N. MUSEUMS, MINISPOC
40	National flags installed Institutions, schools, exhibitions hosted, and publications produced	0	0	0	0	1	Administrative	Admin	Annual	NATIONAL MUSEUMS, MINISPOC, MINAFFETE
41	Archives records proceeded internally, arranged and registered	0	0	0	0	1	Administrative	Admin	Annual	RALSA, MINISPOC
42	New library structures and upgrading of existing ones	0	0	0	0	1	Administrative	Admin	Annual	RALSA, MINISPOC, MININFRA
43	Preserving all about the Genocide against the Tutsi in all Districts of Rwanda	0	0	0	0	1	Administrative	Admin	annual	CNLG, MINISPOC
44	Avail information to the Rwandan community and rest of the world on genocide against the Tutsi	0	0	0	0	1	Administrative	Admin	Annual	CNLG, MINISPOC

Annex 14: List of indicators in the Transport sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
1	Passenger and freight volumes, by mode of transport	1	0	0	0	0	Administrative	Records of MININFRA	Annually	MININFRA
2	Proportion of population that has convenient access to public transport	1	0	0	0	0	Administrative	PUBLIC TRANSPORT POLICY AND STRATEGY	Annually	MININFRA
3	Proportion of the rural population who live within 2 km of an all-season road	0	0	0	0	1	Survey	EICV	Triennially	NISR
4	Number of passengers carried per year by National Carrier.	0	0	0	1	1	Administrative	RTDA Reports	Annually	MININFRA
5	Length of unpaved national roads upgraded to paved	0	0	0	1	0	Administrative	RTDA Reports	Annually	MININFRA
6	Number of Km of feeder roads rehabilitated	0	0	0	1	1	Administrative	RTDA Reports	Annually	MININFRA
7	Quantity of Regional Railway Network (Km)	0	0	1	0	1	Administrative	Admin	Annually	MININFRA
8	Paved Road Networks (Km)	0	0	1	0	0	Administrative	Admin	Annually	MININFRA
9	Marine-Port Services Network	0	0	1	0	0	Administrative	Admin	Annually	MININFRA
10	Civil Aviation and Air Transport (number of airports)	0	0	1	0	0	Administrative	Admin	Annually	RCAA
11	Pipeline length (km)	0	0	1	0	0	Administrative	Admin	Annually	MININFRA
12	% Of intra- Africa tourism is doubled	0	1	0	0	0	Administrative	Specific Survey		MININFRA
13	% Contribution of shipping/port operation services to GDP	0	1	0	0	0	Administrative	N ACCOUNT	Annually	NISR
14	% Of annual tonnage of cargo carried by locally owned shipping lines	0	1	0	0	0	Administrative	Admin	Annually	MININFRA
15	% Of average duration of ship call time reduced	0	1	0	0	0	Administrative	Admin	Annually	MININFRA
16	% Of average clearing time of goods reduced	0	1	0	0	0	Administrative	Admin	Annually	MININFRA
17	% Of National paved roads in good condition	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
18	% Of National unpaved roads in good condition	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
19	% Of District Road Class 1 in good condition	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
20	Number of Km upgraded/constructed	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
21	Number of Km of paved national roads rehabilitated	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
22	Number of Km of paved national roads maintained	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
23	Number of unpaved national road maintained	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
24	Number of operational weighbridges	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
25	Number of Km of District roads class I maintained	0	0	0	0	1	Administrative	Periodic maintenance reports	Annually	MININFRA
26	Number of Km of Urban Road constructed	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
27	Proportion of people with disabilities with convenient access to public transport	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
28	Number of Km of Scheduled Bus Routes added	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
29	Number of Km of DBL Introduced	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
30	Number of intersections upgraded	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
31	Percentage of Public Transport users accessing real time in CoK.	0	0	0	0	1	Administrative	Specific Survey	Annually	MININFRA
32	Percentage implementation of cashless payment in public transport	0	0	0	0	1	Administrative	Specific Survey	Annually	MININFRA
33	Percentage of public transport vehicles with internet connectivity	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
34	Border posts crossing time in hours	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
35	Passenger number transported by road	0	0	0	0	1	Administrative	Specific Survey	Annually	MININFRA
36	Passenger number transported by Inland Waterways	0	0	0	0	1	Administrative	Specific Survey	Annually	MININFRA
37	Freight volumes (Metric Tons) transported by road	0	0	0	0	1	Administrative	Specific Survey	Annually	MININFRA
38	Freight volumes (Metric Tons) by Inland Waterways	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
39	Number of ports developed	0	0	0	0	1	Administrative	RTDA reports	Annually	MININFRA
40	Number of OSBP constructed	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
41	Reduction in number of road accident and incidents per 10,000 motor vehicles	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
42	% Reduction of water accidents on Lake Kivu	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
43	Passenger handling capacity of airports	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
44	Air freight capacity (metric tons)	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
45	% Implementation of the ICAO 8 critical elements	0	0	0	0	1	Administrative	Progress reports	Annually	MININFRA
46	Number of aircrafts	0	0	0	0	1	Administrative	RwandAir reports	Annually	MININFRA
47	Number of destinations	0	0	0	0	1	Administrative	RwandAir reports	Annually	MININFRA

Annex 15: List of indicators in the Urbanization and Rural Settlement sector and their sources

SN	Indicator	SDG	AU2063	EAC 2050	NST 2	SSP	Data Types	Data source	Frequency	Responsible institution
1	Proportion of urban population living in slums, informal settlements or inadequate housing	1	1	0	0	1	Survey	EICV	3 years	NISR
2	% Of homeless population; b) Average number of persons per room; c) % of households living in standard housing units	0	1	0	0	0	Survey	EICV	3 years	NISR
3	Population living in urban areas	0	0	0	1	0	Survey	EICV	3 years	NISR
4	Percentage of households living in planned settlements	0	0	0	1	0	Survey	EICV	3 years	NISR
5	Number of Districts using digital information systems in construction permitting and management	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
6	Number of Districts that conduct Urban Planning and Human Settlement Coordination Meetings at least every 2 months	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
7	Number of urban infrastructure projects implemented to make SCs attractive for investment	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
8	SC's branding strategies elaborated and implemented	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
9	Percent of rural households settled in integrated, planned, green rural settlements	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
10	Percent of rural settlements with safe year-round access within 45 minutes to a) primary schools, b) tarmac roads, c) markets, d) hospitals, e) financial institutions	0	0	0	0	1	Administrative			MININFRA
11	Percent of households within 100 m of an improved water source by region	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
12	Km of urban infrastructure services provided in new residential zones	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
13	Percent of urban households with access to basic urban services (according to UPC servicing requirements)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
14	Percent of urban households with improved sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
15	Percent of urban households with access to public transport w/in 500 m and waiting time no more than 15 min	0	0	0	0	1	Survey	EICV	Three Years	NISR
16	Percent of urban households accessing electricity	0	0	0	0	1	Survey	EICV	3 years	NISR
17	Percent of urban households with access to health center within 30 min	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
18	Percent of urban households with access to primary school within 30 min	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
19	Average share of the built-up area of cities that is open and green space for public use for all	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
20	Number of local government institutions capacitated	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
21	Number of affordable housing projects (and resulting no. of housing units) facilitated by government support schemes (infrastructure/ finance)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
22	Number of informal settlements upgrading projects financially supported (and area in ha / no. of households whose habitat conditions have improved)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
23	Number of rural settlements upgraded	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
24	Number of Rwandan establishments in the construction industry which are quality-certified with international recognition	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
25	Percent of registered professionals (architecture, urban planning, civil engineering professions) with proven capacity to develop cost-efficient, location-based and green buildings	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
26	Number of registered professionals in urban and rural settlement planning services and construction industry	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
27	Number of new government projects constructed	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
28	Percent of immovable government assets efficiently and regularly maintained at cost/m2 between TBD and TBD	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
29	Percent of category 3 / 4 new buildings and real estates that comply with minimum green building requirements	0	0	0	0	1	Administrative	Admin	Annually	MININFRA

SN	Indicator	SDG	AU2063	EAC 2050	NST 2	SSP	Data Types	Data source	Frequency	Responsible institution
30	Percent of buildings of Cat. 3/4 that have received building permit, are inspected before and during construction and before occupancy	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
31	Percent of development projects permitted and constructed in line with urban planning documents	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
32	Number of Districts monitored in urban planning and building audits	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
33	Number of public information and awareness initiatives related to urban and rural settlement policies and development	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
34	All public and multi-dwelling buildings comply with universal accessibility and safety requirements	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
35	Percent of directly concerned landowners who have participated in the elaboration of Land Subdivision Plans (urban or rural)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA

Annex 16: List of indicators in the WATSAN sector and their sources

SN	Indicator	SDG	AU2063	EAC2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
1	Proportion of population using safely managed drinking water services	1	0	0	0	0	Survey	EICV	3 years	NISR
2	Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water	1	0	0	0	0	Survey	EICV	3 years	NISR
3	Proportion of wastewater safely treated	1	0	0	0	0	Administrative	Admin	Annually	MININFRA
4	Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	1	0	0	0	1	Survey	EICV	3 years	NISR
5	% Of population with access to safe drinking water	0	1	0	0	0	Survey	EICV	3 years	NISR
6	% Of population with access to improved sanitation facilities b) % of population who use improved sanitation facilities	0	1	0	0	0	Survey	EICV	3 years	NISR
7	% Of budget allocated to water and sanitation programme	0	1	0	0	0	Administrative	Admin	Annually	MINECOFIN
8	% Of wastewater recycled for agriculture and industrial use	0	1	0	0	0	Administrative	Admin	Annually	MININFRA
9	Access to safe water (%)	0	0	1	0	0	Survey	EICV	3 years	NISR
10	Access to improved sanitation (%)	0	0	1	0	0	Survey	EICV	3 years	NISR
11	Percentage of Households using an improved water source	0	0	0	1	0	Survey	EICV	3 years	NISR
12	Percentage of Households with access to basic sanitation facilities	0	0	0	1	0	Survey	EICV	3 years	NISR
13	% Of households with improved water source in dwellings /yard by region	0	0	0	0	1	Survey	EICV	3 years	NISR
14	% Of population using an improved water source in Rwanda	0	0	0	0	1	Survey	EICV	3 years	NISR
15	% of households with clean drinking water available when needed in rural areas	0	0	0	0	1	Survey	EICV	3 years	NISR
16	% Of rural households using an improved water source within 500m	0	0	0	0	1	Survey	EICV	3 years	NISR
17	% Of population using an improved water source within 30 minutes round-trip by region	0	0	0	0	1	Survey	EICV	3 years	NISR
18	% Of population using an improved water source by region	0	0	0	0	1	Survey	EICV	3 years	NISR
19	% of households with clean drinking water available when needed in urban areas	0	0	0	0	1	Survey	EICV	3 years	NISR
20	% Of urban households using an improved water source within 200m	0	0	0	0	1	Survey	EICV	3 years	NISR
21	% Of health centers with improved Water Supply facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
22	% Of schools with improved WS facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
23	% Of rural improved water sources functional at the time of spot check	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
24	% Of public rural water supply systems managed by a contracted private operator	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
25	% Of fully functional water supply system in urban areas	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
26	% of population using an improved water source which is of free contamination at the point of delivery, by region	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
27	% Cost recovery (revenue / O&M costs) for rural piped water schemes	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
28	(%) non-revenue water (WASAC)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
29	Total urban water production capacity (000'm^3 per day)	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
30	% Of population with basic on-site sanitation facilities which safely contain waste in situ, by region	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
31	% Of population using basic improved sanitation facilities, by region	0	0	0	0	1	Administrative	Admin	Annually	MININFRA

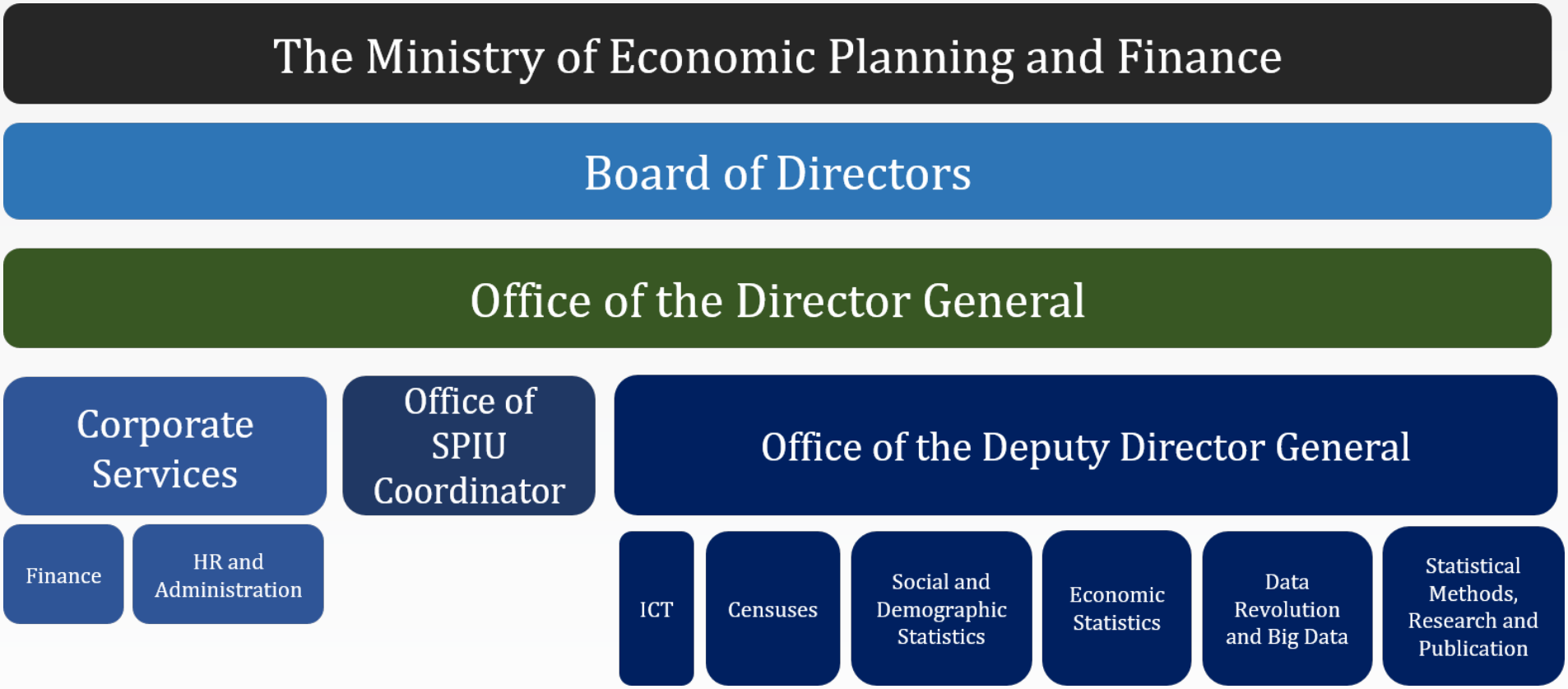
SN	Indicator	SDG	AU2063	EAC2050	NST 2	SSP	Data Type	Data source	Frequency	Responsible institution
32	% Of households with on-site improved sanitation facilities or septic tank have access to safe sludge disposal services, by region	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
33	% Of households with access to collective sewerage services	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
34	% Of industries with wastewater treatment systems	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
35	% Of schools with access to sanitation facilities which safely contain waste	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
36	% Of schools with improved Sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
37	% Of Health centers with sanitation facilities which safely contain waste	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
38	% Of health centers with improved Sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
39	% Of public offices with sanitation facilities which safely contain waste	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
40	% Of public offices with improved sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
41	% Of public places (markets, car parks, petroleum stations, highways) with sanitation facilities which safely contain waste	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
42	% of public places (markets, car parks, bus bays, petroleum stations, high ways) with improved sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
43	% Of urban population in areas covered by master plans with storm water considerations	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
44	% Of households sorting waste	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
45	% Of households contracted with service providers collecting and transporting waste in urban areas	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
46	% Of Districts with appropriate solid waste disposal facilities/ modern Landfills	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
47	Number of districts with functional District WASH Boards	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
48	Percentage (%) of districts with at least 1 qualified WSS engineer	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
49	% Women represented in key positions of water user committees	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
50	% Female occupying key positions in Water and Sanitation Sector institutions	0	0	0	0	1	Administrative	Admin	Annually	MININFRA
51	Parity female to male headed households using basic improved sanitation facilities	0	0	0	0	1	Administrative	Admin	Annually	MININFRA

Annex 17: List of indicators in the PFM sector and their sources

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	SDDS	Type	Source	Frequency	Institution
1	Percentage of IFMIS and other PFM systems modules enhanced with business intelligence features	1	1	1	1	1	0	Administrative	admin	Annually	RPPA
2	Percentage of IFMIS and other PFM systems users making decisions from information-generated business intelligence features	1	1	0	1	1	0	Administrative	admin	Annually	RRA
3	Percentage of public resources audited using automated systems	1	1	0	1	1	0	Administrative	admin	Annually	RRA
4	Number of qualified PFM staff	1	1	0	1	1	0	Administrative	admin	Annually	LODA
5	Vacancy rates, by grade and cadre	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
6	PFM L&D Strategy reviewed	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
7	Number of DPs technically and financially supporting the PFM SSP	0	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
8	Number of DPs supporting the PFM SSP through the Basket Fund	0	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
9	Satisfaction levels with sector and reform coordination among stakeholders	0	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
10	Standards used for the preparation of the consolidated accounts of the Government	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
11	Percentage of public entities with an unqualified audit opinion for financial statements, compliance with laws and regulations, and value for money	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
12	Percentage of audit recommendations from the last Audit Report that have been fully implemented	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
13	Percentage of internal audit recommendations fully implemented	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
14	Number of public entities with risk management policy and risk register with recommended governance structures	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
15	Share of the value of public procurement tenders awarded through competitive procurement methods	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
16	The declining share of public tenders performed outside Umucyo procurement system (number)	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
17	Climate responsive PFM Assessment indicator CRPFM-8 on climate responsive procurement	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
18	Share of public expenditures covered by the annual audit report	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
19	Number of performance audits conducted annually (number, value, and sectors)	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
20	Share of intermediate objectives of 5th FFDP met by the end of each FY	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
21	Percentage of recommendations from Expenditure Assignment Studies (round 1) implemented	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
22	Number of recommendations implemented from the review of earmarked transfer guidelines	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
23	Subnational PEFA indicator PI-3 for District revenue budget (average)	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
24	Districts with a revenue potential study for which at least 75Percentage of recommendations have been implemented	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
25	Cities are using IT systems to increase property tax revenues	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
26	Number of Districts borrowing using a new framework for subnational debt and PPPs	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
27	Number of Districts and CoK with unqualified opinion for (financial statements, compliance, and VFM)	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
28	Share of feasibility studies that meet criteria standards of LODA	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
29	Debt-to-GDP levels	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
30	PEFA indicator PI-22.1 on the stock of public expenditure arrears as a share of total central government expenditure	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
31	Coverage of Climate expenditure tagged, tracked, and reported	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN

SN	Indicator	SDG	AU 2063	EAC 2050	NST 2	SSP	SDDS	Type	Source	Frequency	Institution
32	Gender responsive PFM Assessment indicator GRPFM-1 on the gender impact analysis of budget policy proposals	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
33	Total identified abandoned and stalled contracts for project investment	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
34	Climate responsive PFM Assessment indicator CRPFM-5 on climate responsive public investment management	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
35	Gender responsive PFM Assessment indicator GRPFM-2 on gender responsive public investment management	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
36	Revenue as a share of GDP	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
37	VAT gap	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
38	RRA cost of collection	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
39	Share of objectives in the Climate and Nature Financing Strategy that have been met	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
40	Share of investments in GBEs that were subject to a full feasibility study	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
41	Value of domiciled assets under management	1	1	0	1	1	0	Administrative	admin	Annually	MINECOFIN
42	Number of investors	1	1	0	1	1	0	Administrative	admin	Annually	RFL
43	Double Tax treaties (Ratified)	1	1	0	1	1	0	Administrative	admin	Annually	RFL

Annex 18: NISR Organization Structure



Annex 19: NISR Projects/activities in NSDS4

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
Total Budget (NISR Only)					21,413,177,270	14,599,497,330	22,168,092,650	21,722,813,613	17,578,963,703	96,604,072,715
Pillar I: Produce data to support evidence-based decision-making					12,238,358,573	7,358,262,105	14,952,177,391	12,564,335,771	10,516,945,529	57,480,079,369
Strategic Objective 01: Sustain and enhance core data production at NISR					**10,491,301,305**	**5,288,276,519**	**12,785,039,487**	**9,787,812,713**	**7,659,282,829**	**46,011,712,853**
1.1	Preparation of the 6th Rwanda Population and Housing Census	ALL	NISR	GoR, MINALOC, UNFPA					822,440,500	822,440,500
1.2	Conduct Demographic and Health Survey VII	ALL	NISR	MoH, RBC	2,535,000,000	75,000,000	43,000,000	41,600,000	0	2,694,600,000
1.3	Conduct the Labour Force Survey	ALL	NISR	MIFOTRA	1,127,844,417	971,236,638	1,371,236,638	1,051,236,638	971,236,638	5,492,790,969
1.4	Conduct the Seasonal Agricultural Survey	AGRICULTURE	NISR	MINAGRI, RAB	2,250,728,523	2,000,728,523	3,290,728,523	2,000,728,523	2,300,728,523	11,843,642,615
1.5	Finalize the EICV7 and disseminate the EICV7 findings	ALL	NISR	ALL SECTORS	1,840,062,757			-	-	1,840,062,757
1.6	Develop and maintain the system of National Accounts statistics /Regular GDP estimates compilation	FINANCE	NISR	RRA, MINECOFIN, BNR	19,274,850	19,274,850	19,274,850	19,274,850	19,274,850	96,374,250
1.8	Establishment Census	ALL	NISR	PSF	-		1,780,982,846	-	639,354,366	2,420,337,212
1.9	Infrastructure and Industry statistics	FINANCE	NISR	MININFRA	350,100,000	350,100,000	350,100,000	350,100,000	350,100,000	1,750,500,000
1.10	Maintain and develop the system of Price Statistics Compilation /Collecting and analyzing Trade Price Indices Survey	FINANCE	NISR	BNR, NAEB	55,997,000	55,997,000	55,997,000	55,997,000	55,997,000	279,985,000
1.11	Maintain and develop the system of Price Statistics Compilation /Collecting and analyzing Consumer Price Statistics	FINANCE	NISR	BNR	82,911,816	72,991,816	77,754,100	87,674,100	77,754,100	399,085,932
1.12	Maintain and develop the system of Price Statistics Compilation /Collecting and analyzing Producer Price Statistics	FINANCE	NISR	BNR	35,420,000	32,840,000	32,996,600	32,996,600	33,657,898	167,911,098
1.13	Maintaining gender statistics production framework	ALL	NISR	MIGEPROF, GMO	7,040,900	2,610,900	7,040,900	2,610,900	7,040,900	26,344,500
	Enhancing the Gender data lab	ALL	NISR	GMO, Paris21						
1.14	Prepare the Rwanda Demographic and Health Survey RDHS-VIII	ALL	NISR	MoH, RBC	-	-	-	-	457,777,012	457,777,012
1.15	Quarterly Trade statistics Report, and External trade statistics harmonization (NISR, BNR, RRA, NAEB, MINICOM, and MINECOFIN)	FINANCE	NISR	BNR, RRA, NAEB, MINICOM, and MINECOFIN	15,670,000	15,670,000	15,670,000	15,670,000	15,670,000	78,350,000
1.16	Rebase GDP by constructing SUT & SAM for base year (GDP rebasing exercise)	FINANCE	NISR	-	216,424,250	-		121,349,250	216,424,250	554,197,750
1.18	To conduct Informal Cross Border Trade Survey	TRADE	NISR	BNR	152,281,200	152,281,200	152,281,200	152,281,200	152,281,200	761,406,000
1.20	To conduct Travel Expenditure Survey, and other trade related surveys to enhance BOP (services, construction, etc.)	TRADE	NISR	BNR	365,067,860	365,067,860	365,067,860	365,067,860	365,067,860	1,825,339,300
1.21	Design and conduct EICV8	ALL	NISR	ALL SECTORS	0	0	4,048,431,238	1,960,486,680	0	6,008,917,918
1.22	To design and conduct the Integrated Business Enterprise Survey	TRADE	NISR	MINICOM, BNR, RCA, PSF, MINALOC,	972,977,732	972,977,732	972,977,732	972,977,732	972,977,732	4,864,888,660

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
1.23	Design and Conduct the Agriculture Census	ALL	NISR	MINECOFIN				2,246,261,380		2,246,261,380
1.24	Enhancing data integration: linking business surveys, business register, and tax databases	FINANCE	NISR	RRA, RDB, MINICOM	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
1.25	Maintaining an accurate and up-to-date food balance sheet (FBS)	AGRICULTURE	NISR	MINAGRI, RAB	55,000,000	55,000,000	55,000,000	55,000,000	55,000,000	275,000,000
1.26	Extension of contract for high-resolution satellite imagery	ALL	NISR		26,000,000	26,000,000	26,000,000	26,000,000	26,000,000	130,000,000
1.27	Extension of Technical assistance on CAPI: Technical assistance remuneration	ALL	NISR		153,000,000	-	-	-	-	153,000,000
1.28	Acquisition of vendor licensed analytics software packages: SPSS, STATA, SAS and GIS software packages.	ALL	NISR		110,000,000	-	-	110,000,000	-	220,000,000
1.29	Maintenance, management and security of mobile devices (including high accuracy GPS devices)	ALL	NISR		20,500,000	20,500,000	20,500,000	20,500,000	20,500,000	102,500,000
Strategic Objective 02: Enrich and expand data supply across the NSS					1,102,154,150	1,253,274,150	1,478,618,150	1,711,030,950	2,125,526,310	7,670,603,710
2.13	Developing and maintaining a framework for gathering relevant statistics on justice and human rights	ALL	NISR	MINIJUST, COURTS, MINALOC, NCC, MIGEPROF, RNP	15,000,000	30,000,000	45,000,000	60,000,000	60,000,000	210,000,000
2.16	Produce Gender Statistics reports	ALL	NISR	UN-Women	55,000,000	95,000,000	142,000,000	91,400,000	239,680,000	623,080,000
2.33	Strengthening Civil registration and vital statistics system	ALL	NISR	MINALOC, MINIJUST, MoH, NIDA	653,400,000	568,080,000	681,696,000	890,035,200	1,084,642,240	3,877,853,440
2.34	Strengthening health administrative statistics data collection framework	ALL	NISR	MoH, RBC	20,204,900	20,204,900	20,204,900	20,204,900	20,204,900	101,024,500
2.35	Strengthen administrative records in Education Sector (EDMIS)	ALL	NISR	MINEDUC	207,200,000	248,640,000	298,368,000	358,041,600	429,649,920	1,541,899,520
2.45	Maintaining the Natural Capital Account and environment statistics within the framework of the system of environmental economic accounting (SEEA)	ENR	NISR	MININFRA	151,349,250	291,349,250	291,349,250	291,349,250	291,349,250	1,316,746,250
Strategic Objective 03: Leverage NSS data products to lead Imihigo indicator selection and performance evaluation					644,903,118	816,711,436	688,519,754	1,065,492,108	732,136,390	3,797,762,806
3.1	Midterm Evaluation of Imihigo	ALL	NISR	ALL SECTORS	322,451,559	333,355,718	344,259,877	355,164,036	366,068,195	1,721,299,385
3.2	Annual Evaluation of Imihigo	ALL	NISR	ALL SECTORS	322,451,559	333,355,718	344,259,877	355,164,036	366,068,195	1,721,299,385
3.3	Imihigo Data Management System	ALL	NISR	FCDO		150,000,000				
3.4	Imihigo Impact Evaluation	ALL	NISR	FCDO, MINALOC, MINECOFIN				355,164,036		355,164,036
Pillar II: Lead a national data revolution to deepen statistical impact					**1,713,680,800**	**1,934,296,000**	**1,396,884,000**	**1,249,584,000**	**1,294,034,000**	**7,588,478,800**
Strategic Objective 04: Harmonize best practices in data governance across the NSS					**7,123,800**	**60,615,000**	**14,715,000**	**14,715,000**	**14,715,000**	**111,883,800**
4.7	Customization of Classification standards and advocate for them	ALL	NISR	-	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	8,575,000
4.8	Purchase of software licenses and content such as satellite imagery	ALL	NISR	RLMUA, MININFRA	-	45,900,000	-	-	-	45,900,000
4.9	Regular monitoring of SSDSs in the NSDS4 context	ALL	NISR	-	5,408,800	13,000,000	13,000,000	13,000,000	13,000,000	57,408,800

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
Strategic Objective 05: Enable data openness, integration and interoperability through enhanced legal and policy frameworks					**0**	**0**	**0**	**0**	**0**	**0**
5.1	National Data Governance Framework	ALL	MINICT	MINIJUST, RURA, BNR, UK-ONS						0
Strategic Objective 06: Equip and operationalize the Data Science Campus and the UN Regional Hub of Big Data to convene stakeholders and promote innovation					1,706,557,000	1,873,681,000	1,382,169,000	1,234,869,000	1,279,319,000	7,476,595,000
6.1	Capacity building in Data Science skills for NSS members	ALL	NISR	-	96,600,000	106,500,000	105,800,000	103,500,000	115,000,000	527,400,000
6.2	Implement and maintain NISR big data lab and NISR private cloud data center	ALL	NISR	ONS UK	500,760,000	500,560,000	15,120,000	15,120,000	15,120,000	1,046,680,000
6.3	Implement and maintain smart conference and modern AV system for the training center	ALL	NISR	RISA	127,884,000	14,808,000	4,936,000	4,936,000	4,936,000	157,500,000
6.4	Operationalization of NISR Data Science Campus and the Regional Hub of Big Data	ALL	NISR		95,000,000	100,500,000	105,000,000	110,000,000	200,000,000	610,500,000
6.5	Increase data science advocacy and awareness through Big data competitions	ALL	NISR	UK ONS	35,863,000	35,863,000	35,863,000	35,863,000	35,863,000	179,315,000
6.6	Increase data science advocacy and awareness through conferences and seminars on Big data	ALL	NISR	-	4,850,000	4,850,000	4,850,000	4,850,000	4,850,000	24,250,000
6.7	Quick win projects (Institutional data warehouses and Dashboards (RDB, RSSB, RRA, BNR, NISR, RURA); National open data platform)	ALL	NISR	RISA, RDB, RURA, RRA	25,000,000	150,000,000	150,000,000	-	-	325,000,000
6.8	Use of satellite imageries to compute statistical indicators for RNR sector (TA)	ENR	NISR	ENR		65,000,000	65,000,000	65,000,000	65,000,000	260,000,000
6.9	Use of satellite imageries to compute statistical indicators for RNR sector (Capacity Building, Trainings)		NISR	ENR		3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
6.10	Exploration and use of economic administrative records	ALL	NISR	MINECOFIN, BNR, RRA, RDB, PSF		72,000,000	72,000,000	72,000,000	14,950,000	230,950,000
6.11	Maintain the SDGs Dissemination platform	ALL	NISR	UK ONS	-	-	-	-	-	0
6.12	UN Hackathon	ALL	UNECA		125,000,000	125,000,000	125,000,000	125,000,000	125,000,000	625,000,000
6.13	Annual Capacity building plans	ALL	UNECA		45,000,000	45,000,000	45,000,000	45,000,000	45,000,000	225,000,000
6.14	Regional capacity building, Use of Big data analytics and Data Science, Satellites images for environment/ agriculture, CPI, Automation for occupation code, production/generation of synthetic data, MPD, Data anonymization,	ENR	UNECA		140,000,000	140,000,000	140,000,000	140,000,000	140,000,000	700,000,000
6.21	Collaborative projects, Use Satellites images for environmental stats, agriculture stats, poverty analysis and distance projects	ENR	UNECA		78,000,000	78,000,000	78,000,000	78,000,000	78,000,000	390,000,000
6.26	In-person Steering committee meetings for UN Regional Hub for Big Data	ALL	UNECA		65,700,000	65,700,000	65,700,000	65,700,000	65,700,000	328,500,000
6.27	Regional Hub Staffing, Big Data and Data Science technical experts in satellites images analysis with Machine learning for environmental statistics and agriculture, MPD, RAPs, AI	ALL	UNECA		154,700,000	154,700,000	154,700,000	154,700,000	154,700,000	773,500,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
6.30	Regional Hub Staffing, Regional Hub Projects coordinator (Ongoing)	ALL	UNECA		90,800,000	90,800,000	90,800,000	90,800,000	90,800,000	454,000,000
6.31	Regional Hub Staffing, Communication manager	ALL	UNECA		42,800,000	42,800,000	42,800,000	42,800,000	42,800,000	214,000,000
6.32	Regional Hub Staffing, UNECA Regional Hub Liaison Person based in UNECA office- Kigali	ALL	UNECA		42,800,000	42,800,000	42,800,000	42,800,000	42,800,000	214,000,000
6.33	UN Regional Hub Communication and awareness	ALL	UNECA		35,800,000	35,800,000	35,800,000	35,800,000	35,800,000	179,000,000
Pillar III: Build capability across the NSS to promote data uptake and use					**869,613,795**	**791,970,936**	**765,745,477**	**724,843,151**	**768,478,587**	**3,192,180,095**
Strategic Objective 07: Expand strategic communication and advocacy to increase data uptake and statistical literacy					**549,108,377**	**537,908,377**	**501,898,377**	**530,448,587**	**588,158,377**	**2,707,522,095**
7.1	Advocate for NISR products and sensitization through Mass Media channels	ALL	NISR	-	47,739,332	47,739,332	47,739,332	47,739,332	47,739,332	238,696,660
7.2	Organize coordination meetings for SDDS	ALL	NISR	IMF, AfDB, WB	1,435,000	1,435,000	1,435,000	1,435,000	1,435,000	7,175,000
7.3	Conduct statistical advocacy through competitions	ALL	NISR	-	40,758,000	40,758,000	40,758,000	40,758,000	40,758,000	203,790,000
7.4	Data quality assurance of surveys authorized by NISR	ALL	NISR	-	8,340,000	8,340,000	8,430,000	8,430,000	8,430,000	41,970,000
7.5	Use of Mass Media and Social Media for data Dissemination, advocacy and awareness for official statistics	ALL	NISR	Media Houses	191,983,200	191,983,200	191,983,200	191,983,200	191,983,200	959,916,000
7.6	Dissemination of NISR surveys' results at provincial level	ALL	NISR	MINALOC, PROVINCES	125,411,045	125,411,045	125,411,045	125,411,045	125,411,045	627,055,225
7.7	Organization of the African Statistics Day Celebration including Reading Data with Children events	ALL	NISR	NSS/private organisations	28,655,000	28,655,000	28,655,000	28,655,000	28,655,000	143,275,000
7.8	Develop the child data driven mindset through Reading data with Children initiatives	ALL	NISR	UNICEF	33,127,500	20,827,500	20,827,500	33,127,500	20,827,500	128,737,500
7.9	Dissemination of RPHC2022 findings	ALL	NISR	MINALOC, Media	35,000,000		-	16,250,210	50,160,000	101,410,210
7.10	Raising public awareness and sensitization on CRVS	ALL	NISR	NIDA, MINALOC	36,659,300	36,659,300	36,659,300	36,659,300	36,659,300	183,296,500
7.11	User Satisfaction Survey (USS)	ALL	NISR	-	-	36,100,000			36,100,000	72,200,000
Strategic Objective 08: Enhance capacity for data production and statistical analysis					**289,485,418**	**212,702,559**	**232,827,100**	**169,014,564**	**159,170,210**	**334,728,000**
8.1	Capacity building of NSS members for statistical methods and dissemination	ALL	NISR		207,757,418	156,702,559	160,827,100	105,014,564	98,170,210	
8.2	Implement the special skills development programs through Short Courses for NISR staff capacity development	ALL	NISR	-	15,000,000	19,000,000	16,000,000	16,000,000	-	66,000,000
8.3	Strengthen capacity to use Statistical packages for CRVS data analysis (ANACOD)	ALL	NISR	WHO	14,728,000	-	-	-	-	14,728,000
8.4	Support Capacity Development for NISR staff to pursue further studies	ALL	NISR	CESB, MIFOTRA	52,000,000	37,000,000	56,000,000	48,000,000	61,000,000	254,000,000
Strategic Objective 09: Introduce new methods in data science and analytics					**31,020,000**	**41,360,000**	**31,020,000**	**25,380,000**	**21,150,000**	**149,930,000**
9.1	Train NSS statistics and ICT staff to master modern data capture software tools such as advanced CSPro for Android, Survey123 & Collector for ArcGIS, and Survey Solutions	ALL	NISR	US CENSUS BUREAU, UR CBE	31,020,000	41,360,000	31,020,000	25,380,000	21,150,000	149,930,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
Pillar IV: Strengthen the enabling environment for sustainable statistical development					**6,591,524,102**	**4,514,968,289**	**5,053,285,782**	**7,184,050,691**	**4,999,505,587**	**28,343,334,451**
Strategic Objective 10: Build and sustain the workforce to support sustainable statistical development					**1,468,795,636**	**1,680,261,215**	**1,728,790,689**	**1,785,095,006**	**1,837,250,511**	**8,500,193,057**
10.1	Coaching of professional interns for statistics sustainability	ALL	NISR	Higher Learning Institutions	2,012,040	2,080,080	2,148,120	2,216,160	2,284,200	10,740,600
10.2	Implement the special skills development programs through Short Courses for NISR staff capacity development	ALL	NISR	-	10,000,000	11,000,000	8,000,000	11,000,000	8,000,000	48,000,000
10.3	Improve and maintain NISR organizational structure	ALL	NISR	MIFOTRA	1,427,983,596	1,638,381,135	1,689,842,569	1,743,078,846	1,798,166,311	8,297,452,457
10.5	Secondment of NISR Staff to priority sectors to oversee the implementation of Sector Statistical Plans	ALL	NISR	-	28,800,000	28,800,000	28,800,000	28,800,000	28,800,000	144,000,000
Strategic Objective 11: Invest in operational infrastructure, assets, logistics to support sustainable statistical development					5,083,358,466	2,795,517,074	3,240,305,093	5,352,245,685	2,920,654,276	19,392,080,594
11.1	Acquisition of tangible fixed assets (furniture & AC)	ALL	NISR	RHA	-	100,000,000	-	-	-	100,000,000
11.2	Acquisition of vehicles to support the NISR operations	ALL	NISR	RHA, MININFRA, MINECOFIN	1,780,000,000	-	-	2,500,000,000	-	4,280,000,000
11.3	Maintain NISR core network and security infrastructure	ALL	NISR	RISA	5,232,000	5,232,000	5,232,000	10,272,000	10,272,000	36,240,000
11.4	Maintain smart electricity for NISR training center power consistency	ALL	NISR		40,000,000	-	-	30,000,000	-	70,000,000
11.5	Maintain subscription to public cloud to host public-facing data banks and publications	ALL	NISR	RISA	7,608,000	7,608,000	7,608,000	7,608,000	7,608,000	38,040,000
11.6	Maintain subscriptions to fibre and mobile connectivity to the Internet for staff and data collectors	ALL	NISR	RISA	16,320,000	16,320,000	16,320,000	16,320,000	16,320,000	81,600,000
11.7	Provide effective operationalization of administrative and logistical support systems for NSDS3 implementation	ALL	NISR	-	2,206,466,486	2,271,625,094	2,289,413,113	2,392,313,705	2,364,722,296	11,524,540,694
11.8	Refurbishment of NISR Building Phase II	ALL	NISR	RHA	-	-	300,000,000	-	-	300,000,000
11.9	Upgrade and maintain NISR general corporate hardware and software systems and promote its staff access and use through the Internet	ALL	NISR	RISA	13,331,980	13,331,980	13,331,980	13,331,980	13,331,980	66,659,900
11.10	Upgrade of NISR staff end-user computing facilities	ALL	NISR		16,000,000	91,000,000	-	16,000,000	91,000,000	214,000,000
11.11	Procurement of more smart devices	ALL	NISR		100,000,000	-	300,000,000	-	100,000,000	500,000,000
11.12	Procurement of higher accuracy GPS devices	ALL	NISR		15,000,000	6,000,000	12,000,000	50,000,000	6,000,000	89,000,000
11.13	Maintenance, management and security of mobile devices (including high accuracy GPS devices)	ALL	NISR		20,500,000	20,500,000	20,500,000	20,500,000	20,500,000	102,500,000
11.14	Extension of Internet bandwidth and connectivity lines	ALL	NISR		150,000,000	144,000,000	144,000,000	144,000,000	144,000,000	726,000,000
11.15	Maintenance of Network and Computer equipment	ALL	NISR		15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000
11.16	Upgrade and extension of NISR secure LAN	ALL	NISR		10,000,000	4,000,000	-	-	5,000,000	19,000,000
11.17	Acquisition of big data infrastructure and campus	ALL	NISR		600,000,000	50,000,000	50,000,000	50,000,000	50,000,000	800,000,000
11.18	Acquisition of other ICT Equipment, Software and Assets	ALL	NISR		15,000,000	12,000,000	20,000,000	40,000,000	10,000,000	97,000,000
11.19	Upgrade of hosting service (data center and cloud space)	ALL	NISR		24,500,000	24,500,000	24,500,000	24,500,000	24,500,000	122,500,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
11.20	Upgrade of NISR staff end-user computing facilities	ALL	NISR		46,000,000	12,000,000	20,000,000	20,000,000	40,000,000	138,000,000
11.21	Maintenance of security monitoring and electronic attendance systems	ALL	NISR		2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	12,000,000
Strategic Objective 12: Mobilize resources and strategic partnerships to support sustainable statistical development					39,370,000	39,190,000	84,190,000	46,710,000	241,600,800	451,060,800
12.1	Adhere to the best practices of financial management and maintain appropriate financial planning and reporting	ALL	NISR	DPs, MDAs,	17,320,000	17,320,000	17,320,000	17,320,000	17,320,000	86,600,000
12.2	Annual Review of NSDS4	ALL	NISR	DPs, MDAs,	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	12,500,000
12.3	NSDS4 evaluations (Annual reviews +Mid Term Review + End evaluation of NSDS4)	ALL	NISR	DPs, MDAs, CSOs, PSF	2,500,000	2,500,000	47,500,000	2,500,000	47,500,000	102,500,000
12.4	Develop partnerships to avail technical support and other resources for NISR activities	ALL	NISR	DPs, MDAs	2,745,000	2,745,000	2,745,000	2,745,000	2,745,000	13,725,000
12.5	Hold consultations sessions with partners	ALL	NISR	DPs, MDAs	10,230,000	10,050,000	10,050,000	10,050,000	10,050,000	50,430,000
12.6	Identify and liaise with organisations supporting statistical activities around the world	ALL	NISR	DPs, MDAs	4,075,000	4,075,000	4,075,000	4,075,000	4,075,000	20,375,000
12.7	NSDS5 Design process	ALL	NISR	DPs, MDAs, CSOs, PSF, Paris21, UK ONS	-	-	-	7,520,000	157,410,800	164,930,800

Annex 20: MDAs Projects/activities in NSDS4

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
Total Budget					**9,413,557,099**	**7,196,527,514**	**6,881,470,726**	**7,582,783,489**	**6,355,807,399**	**37,430,146,227**
Pillar I: Availability of Official statistics to support evidence-based decision-making					**6,339,134,954**	**4,685,710,211**	**4,601,192,461**	**6,576,552,436**	**5,394,732,711**	**27,597,322,773**
Strategic Objective 01: Sustain and enhance core data production at NISR					**50,000,000**	**50,000,000**	**50,000,000**	**50,000,000**	**50,000,000**	**250,000,000**
Strategic Objective 02: Enrich and expand data supply across the NSS					**6,289,134,954**	**4,635,710,211**	**4,551,192,461**	**6,526,552,436**	**5,344,732,711**	**27,347,322,773**
2.1	Maintaining the Social Registry Information System	SOCIAL PROTECTION	MINALOC		25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.2	Building Permit management System	URBANIZATION	CoK	RLMUA,RHA						0
2.3	Water and Sanitation Management Information System	WATSAN	MININFRA	WASAC						0
2.4	Rwanda Infrastructure Geoportal	URBANIZATION	MININFRA							0
2.5	Building a Geospatial Data Hub	ALL	RSA							0
2.6	Assessment of cooperatives towards categorizations	PRIVATE	RCA	MINICOM						0
2.7	Maintaining the Cooperative Management Information System	PRIVATE	RCA	MINICOM	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.8	Conducting the Innovation Survey	Education	NCST	AUDA-NEPAD, Ministry of ICT and NISR			220,000,000		220,000,000	440,000,000
2.9	Conducting the Research Survey	Education	NCST	AUDA-NEPAD and NISR		212,000,000		225,000,000	437,000,000	874,000,000
2.10	Assessment of existing Emerging technologies, their adoption, application and impact on national development	Education	NCST	AUDA-NEPAD, Ministry of ICT and NISR	210,000,000				210,000,000	420,000,000
2.11	Status on Science Technology and Innovation	Education	NCST	AUDA-NEPAD, Ministry of ICT and NISR		280,000,000			280,000,000	560,000,000
2.13	national study on PTSD and other mental health issues	HEALTH	RBC	-	5,300,000	-	-	-	-	5,300,000
2.14	Tracer surveys to establish the impact of National Employment Program interventions on Beneficiaries.	JOB	MIFOTRA	-	40,000,000	45,000,000	45,000,000	43,000,000	44,000,000	217,000,000
2.15	Assessment of alcohol and drug consumption behavior among youth.	HEALTH	MINIYOUTH	NRC, RNP, MINALOC, Districts	45,000,000	-	-	-	45,000,000	90,000,000
2.16	Audience Survey	GOVERNANCE	RGB	NISR	-	68,845,000	-	-	-	68,845,000
2.18	Conduct a domestic tourism survey	ALL	RDB	RDB	-	60,000,000	-	70,000,000		130,000,000
2.19	Conduct a research on the Rwanda Reconciliation Barometer	ALL	MINUBUMWE	-	-	168,000,000	-	-	-	168,000,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
2.20	Conduct a research on the status of unity and reconciliation among the youth more specifically in schooling youth	ALL	MINUBUMWE	-	-	80,000,000	-	-	-	80,000,000
2.21	Conduct an availability and gap assessment of basic infrastructure in planned site settlement	URBANIZATION	RHA	MINALOC, REG, RTDA, WASAC	-	-	100,000,000	100,000,000	100,000,000	300,000,000
2.22	Conduct an impact assessment on Home Grown Solutions	ALL	RGB	Citizens	60,000,000	60,000,000	60,000,000	60,000,000	60,000,000	300,000,000
2.23	Cooperative management information system	TRADE	RCA	MINICOM	-	-	-	50,000,000	50,000,000	100,000,000
2.24	Establishing an institutionalized long-term system of collection, synthesis, and analysis of agricultural R&D investment, capacity, and output data in Rwanda	ALL	RAB	UR-CAVM, UNIK, ICK	2,975,000	3,272,500	3,599,750	3,959,725	4,140,000	17,946,975
2.25	FinScope Survey	FINANCE	BNR	NISR				2,000,000,000		2,000,000,000
2.26	Foreign Private Capital (FPC) Census	FINANCE	BNR	RDB, NISR, PSF	3,000,000	3,500,000	4,000,000	4,500,000	5,000,000	20,000,000
2.27	Consumer Expectations Survey	FINANCE	BNR	RDB, NISR, PSF	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	750,000,000
2.28	Informal Cross Border Survey	FINANCE	BNR	NISR, MINICOM, RRA, MINAGRI	608,000,000	608,000,000	608,000,000	608,000,000	608,000,000	3,040,000,000
2.29	Education Statistical Year Book	EDUCATION	MINEDUC	HEC, WDA	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
2.30	HIV Sero-surveillance survey Drug Resistance Monitoring	HEALTH	RBC	-	101,767,876	-	-	-	-	101,767,876
2.31	Impact of "Made in Rwanda" initiative of the emerging Rwandan Textile Industry	JOB	MIFOTRA	-	45,000,000	50,000,000	50,000,000	50,000,000	57,000,000	252,000,000
2.32	Strengthen Administrative statistics, MIS, Capacity Building and Data Dissemination	AGRICULTURE	NAEB	-	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.33	The Comprehensive Food Security and Vulnerability Analysis (CFSVA)	AGRICULTURE	MINAGRI	NISR, WFP			650,000,000			650,000,000
2.34	Income strata of population living in urban area (town/city dwellers)	URBANIZATION	RHA	Private Sector, NISR	-	-	-	-	-	0
2.35	Industrial Research and Development Support		NIRDA	MINICOM	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000
2.37	INGOs, NGOs and FBOs online registration system	GOVERNANCE	RGB	INGOs, NGOs and FBOs	-	-	-	-	-	0
2.38	Inventory and assess socio-economic impact of HHs living in IDPs model	URBANIZATION	RHA	MINALOC, MINECOFIN, MININFRA	-	-	200,000,000	300,000,000	-	500,000,000
2.39	Key Populations size estimation - FSW	HEALTH	RBC	-	75,401,000	-	-	-	-	75,401,000
2.40	Produce and publish Citizen Report card	GOVERNANCE	RGB	Districts	200,000,000	205,000,000	210,000,000	215,000,000	220,000,000	1,050,000,000
2.41	Produce and publish Rwanda Governance Score card	GOVERNANCE	RGB	Gov institutions	30,348,958	32,000,000	35,000,000	37,000,000	40,000,000	174,348,958

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
2.42	Produce and publish Rwanda Media Barometer	GOVERNANCE	RGB	Media houses and Associations, Citizens	40,000,000	-	-	55,000,000	-	95,000,000
2.43	Re-Engineering of MIDIS System for the production of IDs for the citizens below 16 years of age	GOVERNANCE	NIDA	-	4,359,000	3,500,000	-	-	-	7,859,000
2.44	Rwanda Population HIV Impact Assessment - RPHIA	HEALTH	RBC	-	600,722,009	-	-	-	-	600,722,009
2.45	Rwanda Public Service Barometer Report	GOVERNANCE	MIFOTRA	PSC, NISR, MINECOFIN	15,000,000	15,000,000	14,000,000	13,500,000	13,000,000	70,500,000
2.46	Rwanda Youth Development Index	Private Sector and Youth Employment	MINIYOUTH	-	-	50,000,000	-	-	-	50,000,000
2.47	Survey on citizen's participation in legislative process	ALL	RLRC	JRLOS Institutions & CSOs	-	-	-	25,000,000	-	25,000,000
2.48	Survey on compliance, knowledge and understanding of construction laws and regulations in place.	URBANIZATION	RHA	Districts, RBS, Private Sector, IER (Institute of Engineers of Rwanda)	50,000,000	200,000,000	200,000,000	-	-	450,000,000
2.49	Survey on the access to and use of ICT by households and individuals in Rwanda	ICT	MITEC	NISR	450,000,000	-	-	450,000,000	-	900,000,000
2.50	Tracer Study on employability of Graduates and Employers' satisfaction	EDUCATION	HEC	MINEDUC, WDA	60,000,000	-	60,000,000	-	60,000,000	180,000,000
2.52	Strengthen administrative records in Justice, reconciliation, law and order sector	JRLOS	MINIJUST	NISR	4,500,000	4,500,000	4,500,000	4,500,000	4,500,000	22,500,000
2.53	Vulnerability and Risk Analysis & Mapping/ Disaster Risk Management for health sector	HEALTH	RBC	-	-	21,331,600	21,331,600	21,331,600	21,331,600	85,326,400
2.54	Publish Tax statistics in Rwanda, by RRA	FINANCE	RRA	NISR	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
2.56	Planning and Mapping utility infrastructures	ENERGY	REG	EDCL/EUCL	150,000,000					150,000,000
2.57	Publication of quarterly report of Energy Statistics	ENERGY	RURA		15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000
2.58	Maintaining the Permit management System	URBANIZATION	CoK		75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	375,000,000
2.59	Water and Sanitation Management Information System	WATSAN	MININFRA		125,000,000	125,000,000	125,000,000	125,000,000	125,000,000	625,000,000
2.60	Publication of Annual report of WASH Statistics	WATSAN	MININFRA		15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000
2.61	Rwanda Infrastructure Geoportal	URBANIZATION	MININFRA		125,000,000	125,000,000	125,000,000	125,000,000	125,000,000	625,000,000
2.62	Publication of quarterly report of Transport Statistics	TRNSPORT	RURA		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
2.63	Publication of Annual report of Road Statistics	TRNSPORT	RTDA		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
2.64	Building a Geospatial Data Hub	ALL	RSA		75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	375,000,000
2.65	Assessment of cooperatives towards categorizations	Private Sector and Youth Employment	RCA		125,000,000		75,000,000		75,000,000	275,000,000
2.66	Maintaining the Cooperative Management Information System	Private Sector and Youth Employment	RCA		75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	375,000,000
2.67	Maintain the System of refrigeration gas import by types	CENR	REMA	MoE	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.68	Maintain the System of Plastic import by types	CENR	REMA	MoE	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.69	Maintain the System of Air Quality Monitoring	CENR	REMA	MoE	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
2.70	Conduct the study of Environment Status and outlook report, conducted every four years,	CENR	REMA	MoE	75,000,000	150,000,000	0	0	75,000,000	300,000,000
2.71	Conduct the study of National Communication report on climate change (every four years),	CENR	REMA	MoE	200,000,000	0	0	0	200,000,000	400,000,000
2.72	Conduct the Biannual study of Transparence Report on Climate Change,	CENR	REMA	MoE	0	125,000,000		125,000,000		250,000,000
2.73	Conducting the GHG inventory and produce the report (CO2 emission per unit of value added)	CENR	REMA	MoE, UNFCCC	0	0	0	75,000,000	75,000,000	150,000,000
2.74	Conducting the Vulnerability Index	CENR	REMA	MoE	200,000,000	0	0	0	200,000,000	400,000,000
2.75	Maintaining and upgrading the AQUARIOS (administrative data for water)	CENR	RWB	MoE	120,000,000	120,000,000	120,000,000	120,000,000	120,000,000	600,000,000
2.76	Maintaining the Land Administration Systems	CENR	NLA		250,000,000	250,000,000	250,000,000	250,000,000	250,000,000	1,250,000,000
2.77	Conduct a biannual study on compliance land use development plans (DLUP, CoK) per land use category	CENR	NLA		200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	1,000,000,000
2.78	Conduct a biannual study on land market values change per land use category	CENR	NLA		150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	750,000,000
2.79	Mapping and surveying tools Modernized and operationalized	CENR	NLA	DFID	100,000,000	10,000,000	10,000,000	10,000,000	10,000,000	140,000,000
2.80	Forest coverage of total surface areas (Satellite imageries, ground trothing and field survey, personnel and training, reporting and documentation)	CENR	RFA	MoE	747,000,000	0	0	0	0	747,000,000
2.81	Value of annual production of processed forest product (and as a percentage of GDP)	CENR	RFA	MoE	100,000,000	100,000,000	100,000,000	100,000,000	100,000,000	500,000,000

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
2.82	Conduct a survey of wildlife animals in the National parks	CENR	RDB	NISR, African Parks, DFGFI, IGCP, GVTC	0	200,000,000	0	0	250,000,000	450,000,000
2.83	Capacity need assessment and elaboration of capacity development plan	CENR	MoE	NISR	60,000,000	0	0	0	0	60,000,000
2.84	Strengthening environmental administrative statistics data collection framework	CENR	MoE	NISR	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	105,000,000
2.85	Conduct capacity development/Training on environmental data management	CENR	MoE	NISR	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	100,000,000
2.86	Elaborate and disseminate annual environmental statistics report	CENR	MoE	NISR	6,058,951	6,058,951	6,058,951	6,058,951	6,058,951	30,294,755
2.87	Conduct a comprehensive production assessment and inspection in mining and quarrying companies	CENR	RMB	NISR	36,702,160	36,702,160	36,702,160	36,702,160	36,702,160	183,510,800
2.88	Maintaining Geological Information and Mining cadaster system (GIMCS)	CENR	RMB	RMB	150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	750,000,000
Pillar II: Lead a national data revolution to deepen statistical impact					**2,428,060,694**	**1,546,855,852**	**1,394,046,814**	**330,149,602**	**392,843,237**	**6,091,956,199**
Strategic Objective 04: harmonize best practices in data governance across the NSS					**2,401,853,194**	**1,545,648,352**	**1,389,539,314**	**328,942,102**	**391,635,737**	**6,057,618,699**
4.1	Develop and operationalize an Open Data Portal	ICT	MITEC	NISR	-	200,000,000	-	-	-	200,000,000
4.2	EDMIS and EDMS		REB	-	90,084,161	89,266,601	88,150,066	97,611,503	110,305,138	475,417,469
5.1	Hosting cost of HMIS servers hosted at NDC, SSL, etc. and users on central level staff using queries for data analysis	HEALTH	RBC	-	6,330,599	6,330,599	6,330,599	6,330,599	6,330,599	31,652,995
4.3	Modernization of Civil Registration System by putting in Place a National Centralized and Integrated CRVS System		NIDA	MINALOC, MoH, NISR, DGIE, MINAFFET, MoJ, RISA	1,629,438,434	925,051,152	868,558,649	-	50,000,000	3,473,048,235
4.4	Rwanda Economic Intelligence Data Centre		RDB	MINECOFIN	450,000,000	250,000,000	201,500,000	-	-	901,500,000
7.1	Rwanda tourism integrated data warehousing system		RDB	DGIE, RRA, NISR, BNR		50,000,000	-	-	-	50,000,000
4.5	Maintaining the iSP-MIS	SOCIAL PROTECTION	MINALOC	DFID, UNICEF	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	125,000,000
8.1	Development of land use change management system	CENR	NLA		100,000,000	200,000,000	200,000,000	200,000,000	200,000,000	900,000,000
4.6	Develop On line Water permit System	CENR	RWB	NISR	101,000,000	0	0	0	0	101,000,000
Strategic Objective 05: Enable data openness, integration and interoperability through enhanced legal and policy frameworks					**26,207,500**	**1,207,500**	**4,507,500**	**1,207,500**	**1,207,500**	**34,337,500**
5.1	National Data Governance Framework	ALL	MINICT		26,207,500	1,207,500	4,507,500	1,207,500	1,207,500	34,337,500
Pillar III: Build statistical capability across the NSS to increase data uptake and use					**615,361,451**	**718,961,451**	**861,231,451**	**676,081,451**	**323,231,451**	**3,194,867,255**
Strategic Objective 07: Improve data uptake and statistical literacy through strategic communication, dissemination and advocacy					**461,593,951**	**535,493,951**	**634,673,951**	**512,223,951**	**271,673,951**	**2,415,659,755**

	Objective	SECTOR	Responsible, Main	Partners	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total NSDS4
7.1	Statistical Literacy and Capacity building of journalists	GOVERNANCE	MINALOC	NISR		14,500,000	27,500,000	30,450,000	14,500,000	86,950,000
7.2	Elaborate and disseminate annual health statistics report	HEALTH	RBC	-	4,058,951	4,058,951	4,058,951	4,058,951	4,058,951	20,294,755
Strategic Objective 08: Enhance capacity for data management and statistical analysis					**30,000,000**	**0**	**25,000,000**	**0**	**0**	**55,000,000**
8.1	Museums statistical training		INMR	NISR AND MINISPOC	30,000,000	-	25,000,000	-	-	55,000,000
Strategic Objective 09: Introduce new methods and techniques in data science and analytics					123,767,500	183,467,500	201,557,500	163,857,500	51,557,500	724,207,500
9.1	Tax payer Satisfaction Survey	FINANCE	RRA		150,000,000	150,000,000	150,000,000	150,000,000	150,000,000	750,000,000
9.2	Trainings and Technical support in Data science for RRA datasets	FINANCE	RRA	Architura	53,767,500	133,467,500	151,557,500	163,857,500	51,557,500	554,207,500
9.3	Statistical capacity building of MODA staff (including master's degree programs in Big Data Analytics Programs and trainings)		MoD	NISR/MoD (R&D)	70,000,000	50,000,000	50,000,000	-	-	170,000,000
Pillar IV: Strengthen the enabling environment for sustainable statistical development					**31,000,000**	**245,000,000**	**25,000,000**	**0**	**245,000,000**	**546,000,000**
Strategic Objective 10: Build and sustain a workforce to support sustainable statistical development					**31,000,000**	**0**	**25,000,000**	**0**	**0**	**56,000,000**
10.4	Statistical capacity building of INMR (Recruitment of statistician and training)		INMR	NISR AND MINISPOC	31,000,000	-	25,000,000	-	-	56,000,000
Strategic Objective 11: Invest in operational infrastructure, assets, logistics to support sustainable statistical development					**0**	**245,000,000**	**0**	**0**	**245,000,000**	**490,000,000**
11.1	Purchasing new computers for Data collection and data management	CENR	REMA			35,000,000			35,000,000	70,000,000
11.2	Purchasing new computers for Data collection and data management	CENR	RWB			35,000,000			35,000,000	70,000,000
11.3	Purchasing new computers for Data collection and data management	CENR	NLA			35,000,000			35,000,000	70,000,000
11.4	Purchasing new computers for Data collection and data management	CENR	RFA			35,000,000			35,000,000	70,000,000
11.5	Purchasing new computers for Data collection and data management	CENR	RDB			35,000,000			35,000,000	70,000,000
11.6	Purchasing new computers for Data collection and data management	CENR	MoE			35,000,000			35,000,000	70,000,000
11.7	Purchasing new computers for Data collection and data management	CENR	RMB			35,000,000			35,000,000	70,000,000

Annex 21: NSDS4 NSDS4 Log frame

The NSDS4 Log frame (Logical Framework) is a tool that will be continuously used to monitor how it is implemented towards its strategic objectives. It has Impact/**Outcomes, their description**, i**ndicators, baseline, and milestones for each fiscal year, the overall target, and the means of verification.**

IMPACT	Indicator	Baseline 2023/2024	Milestones					Target	Source
			2024/2025	2025/2026	2026/2027	2027/2028	2028/2029		
Users are satisfied with available official statistics.	Overall satisfaction of adequacy of official statistics to priority needs of users	77 % in 2022/2023		Above 77% in 2026/2027			Above 77% in 2028/29	Maintain the user satisfaction Above 77%	User satisfaction surveys reports

OUTCOMES	Indicator	Baseline 2023/2024	Milestones					Target	Source
			2024/2025	2025/2026	2026/2027	2027/2028	2028/2029		
Improved availability of timely, quality, and relevant official statistics for effective planning, policy formulation and decision making and M&E	World Bank Statistical Performance Indicator	73.3 (2022)	>=73%	>=73%	>=73%	>=73%	>=73%	SPI 75%	World Bank SPI dashboard
	Meet and maintain the requirements for SDDS status	eGDDS Rwanda subscription ensured					SDDS Rwanda subscription	SDDS Datasets produced, and National Data Summary pages updated according to timelines and periodicity.	SDDS /IMF reports

Log frame by Pillars

OUTPUTS	Indicator	Baseline 2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Target	Source
PILLAR I: Produce data to support evidence-based decision-making									
Strategic Objective 01: Sustain and enhance core data production at NISR	Statistical indicators from surveys and censuses conducted by NISR are updated on regular basis	RPHC5 conducted in 2022.				Agriculture Census		Agriculture Census and census	Agriculture Census Reports
		EC conducted 2023/2024		EC conducted			EC conducted.	Two (2) ECs Conducted	EC Reports
		DHS6 Conducted in 2019/2020	DHS7 conducted	DHS7 findings disseminated				DHS7 Conducted and published	DHS7 reports
		EICV7 conducted in 2023/2024	Dissemination of EICV7 findings		EICV8 conducted.		Dissemination of EICV8 findings	EICV8 Conducted and report published	EICV7 & EICV8 reports
		IBES conducted in 2023/2024	IBES conducted and reports disseminated	IBES conducted and reports disseminated	IBES conducted and reports disseminated	IBES conducted and reports disseminated	IBES conducted and reports disseminated	Five (5) IBESs conducted	IBES reports
		Seasonal Agriculture Survey (SAS) in 2023/2024	SAS conducted and reports disseminated	SAS conducted and reports disseminated	SAS conducted and reports disseminated	SAS conducted and reports disseminated	SAS conducted and reports disseminated	Five (5) SAS conducted	SAS reports
		LFS Conducted in 2023/2024	LFS conducted every quarter (Q1, Q2, Q3 and Q4)	LFS conducted every quarter (Q1, Q2, Q3 and Q4) and	LFS conducted every quarter (Q1, Q2, Q3 and Q4)	LFS conducted every quarter (Q1, Q2, Q3 and Q4)	LFS conducted every quarter (Q1, Q2, Q3 and Q4)	Twenty (20) LFSs conducted.	LFS quarterly and annual reports.
	Production and publication of regular Economic statistics	Monthly PPI and CPI Produced in 2023/24	PPI, IIP, and CPI produced every month.	PPI, IIP, and CPI produced every month.	PPI, IIP, and CPI produced every month.	PPI, IIP, and CPI produced every month.	PPI, IIP, and CPI produced every month.	Maintain the monthly production of PPI, IIP and CPI .	PPI, IIP and CPI monthly and annual reports.
		Quarterly Trade Statistics in 2023/2024.	Quarterly Trade Statistics produced.	Quarterly Trade Statistics produced.	Quarterly Trade Statistics produced.	Quarterly Trade Statistics produced.	Quarterly Trade Statistics produced.	Maintain production of Trade Statistics.	Trade Statistics reports.
		GDP produced in 2023/2024.	Quarterly GDP produced	Quarterly GDP produced	Quarterly GDP produced	Quarterly GDP produced	Quarterly GDP produced	Maintain production of GDP regularly on quarterly basis	GDP reports.
		Rebasing national accounts 2016/2017	Rebase National Accounts	.		Rebase National Accounts		Maintain rebasing NA, CPI, PPI at least once in 3 years	NA rebasing reports

OUTPUTS	Indicator	Baseline 2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Target	Source
Strategic Objective 02: Enrich and expand data supply across the NSS	Production and publication of Vital statistics through CRVS	90% of births registered. 40% of deaths registered.	90% of births registered 45% of deaths registered.	90% of births registered 50% of deaths registered.	90% of births and 60% of deaths registered	90% of births and 70% of deaths registered	90% of births and 75% of deaths registered	Improve the vital statistics on regular basis through the CRVS.	CRVS annual reports
	Production and publication of Education Statistics through SDMS	Development of SDMS in progress		80% of student enrolments registered through SDMS	85% of student enrolments registered through SDMS	95% of student enrolments registered through SDMS through SDMS	95% of student enrolments registered through SDMS	SDMS updated regularly and 95% of education statistics produced	SDMS annual reports
	Sectors36 Statistical units established and their Sector statistics plans developed	-	All sectors have sector statistics annual plans for the following FY	2 sectors have statistics units All sectors have sector statistics annual plans for the following FY	3 new sectors have statistics units and all sectors have sector statistics annual plans for the following FY	3 new sectors have statistics units and all sectors have sector statistics annual plans for the following FY	All sectors have statistics units and all sectors have sector statistics strategic plans for the next five years	Each sector will have a functional unit/ department of statistics Each sector has an annual statistics plan Each sector has developed a statistics strategic plan for the following five years	NISR and Sectors reports
Strategic Objective 03: Leverage NSS data products to lead Imihigo indicator selection and performance evaluation	Reliable statistics are used to effectively measure the Local and Central Government entities performance.	2023/24 Imihigo Evaluation conducted	2024/25 Imihigo Evaluation report is produced and published.	2025/26 Imihigo Evaluation report is produced and published.	2026/27 Imihigo Evaluation report is produced and published	2027/28 Imihigo Evaluation report is produced and published	2028/29 Imihigo Evaluation report is produced and published	Imihigo are evaluated on regular basis	Imihigo annual reports
PILLAR II: Lead a national data revolution to deepen statistical impact									
Strategic Objective 04: Harmonise best practices in data governance across the NSS	NST2 Metadata handbook	NST2 document is produced		NST2 Metadata handbook is produced					NISR reports
Strategic Objective 05: Enable data openness, integration, and interoperability through enhanced legal and policy frameworks	The National Data Archiving portal (NADA) is modernized.	NADA is upgraded in 2015	NADA is upgraded to the last version of openness technologies					Upgraded and modernized NADA is operational	Online NADA
Strategic Objective 06: Equip and operationalize the Data Science Campus and the UN Regional Hub of Big Data to convene stakeholders and promote innovation	Data Science Campus operationalised	The Data Science Campus is equipped	Big Data analytics competition	Big Data analytics competition	Big Data analytics competition	Big Data analytics competition	Big Data analytics competition	Big Data analytics competition	Data Science Campus reports
PILLAR III: Build capability across the NSS to promote data uptake and use									

36 Sector refers to the leading ministry in the sector

OUTPUTS	Indicator	Baseline 2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Target	Source
Strategic Objective 07: Expand strategic communication and advocacy to increase data uptake and statistical literacy	Annual NISR Communication and Dissemination Plans implementation	NSDS4 developed	Annual NISR Communication Plan from the strategy	Annual NISR Communication Plan from the strategy	Annual NISR Communication Plan from the strategy	Annual NISR Communication Plan from the strategy	Annual NISR Communication Phe strategy	NISR Communication Strategy implemented successfully	NISR report
Strategic Objective 08: Enhance capacity for data production and statistical analysis	NISR five year capacity building plan including big data analytics implemented	NSDS4 developed	NISR annual capacity building plan	NISR annual Capacity building plan	NISR annual capacity building plan	NISR annual capacity building plan	NISR annual capacity building plan	NISR capacity building implemented successfully	Annual NSS capacity building report
Strategic Objective 09: Introduce new methods and techniques in data science and analytics	NISR five year capacity building plan including big data analytics implemented	Annual NISR capacity building plan implemented	Annual NISR capacity building plan implemented	Annual NISR capacity building plan implemented	Annual NISR capacity building plan implemented	Annual NISR cCapacity building planimplemented	Annual NISR capacity building plan implemented	NISR capacity building plan implemented successfully	Annual Capacity building report
PILLAR IV: Strengthen the enabling environment for sustainable statistical development									
Strategic Objective 10: Build and sustain the workforce to support sustainable statistical development	NISR five year Capacity building plan including big data analytics and interns accommodation implemented	50 interns hosted by NISR	25 professional statisticians and non-statisticians interns hosted by NISR	25 professional statisticians and non-statisticians interns hosted by NISR	25 professional statisticians and non-statisticians interns hosted by NISR	25 professional statisticians and non-statisticians interns hosted by NISR	25 professional statisticians and non-statisticians interns hosted by NISR	100 professional statisticians and non-statistician's interns hosted by NISR	Internship report
Strategic Objective 11: Invest in operational infrastructure, assets, and logistics to support sustainable statistical development	NSDS3 reviews conducted	NSD4 approved			NSDS4 mid- term review conducted		End of NSDS4 evaluation feed into NSDS5	NSDS4 regular evaluation conducted	Annual Review Reports and Steering Committee Reports
Strategic Objective 12: Mobilise resources and strategic partnerships to support sustainable statistical development	Commitments for implementation of NSDS4	Full commitment during implementation of NSDS4	Full resources to implement the NSDS4 activities in FY 2024/2025 committed	Full resources to implement the NSDS4 activities in FY 2025/2026 committed	Full resources to implement the NSDS4 activities in FY 2026/2027 committed	Full resources to implement the NSDS4 activities in FY 2027/2028 committed	Full resources to implement the NSDS4 activities in FY 2028/2029 committed	Full resources to implement the NSDS4 committed	NISR Reports
	NISR score by the Office of General Auditor (OAG)	Unqualified Audit opinion on Audit report for FY ended June 2023	NISR is scored "unqualified opinion" by annual audit	NISR is scored "unqualified opinion" by annual audit	NISR is scored "unqualified opinion" by annual audit	NISR is scored "unqualified opinion" by annual audit	NISR is scored "unqualified opinion" by annual audit	NISR is scored "unqualified opinion" by annual audit	OAG Reports

Annex 21: List of NST2 indicators

	Indicator	Data type
1	Annual average Real GDP growth, Nominal GDP	Survey
2	GDP Per capita	Survey
3	Annual average Agriculture GDP growth	Survey
4	Annual average Industry GDP growth	Survey
5	Annual average Services GDP growth	Survey
6	National Savings	Administrative
7	Private investment in value	Administrative
8	Exports of goods and services	Administrative
9	Current Account Deficit	Administrative
10	Number of new decent and productive jobs created	Survey
11	Index on Productivity increase for priority food crops	Survey
12	Productivity and production for specific priority food crops	Survey
13	Area under irrigation	Survey
14	Area Under terraces	Survey
15	Quantity of fertilizers applied	Survey
16	Percentage of farmers using improved seeds, Large-scale farmers (LSF), Small-scale farmers (SSF)	Survey
17	Coverage of agricultural extension services	Survey
18	Post-harvest losses on food crops	Survey
19	Production of milk products	Administrative
20	Production of Meat products	Administrative
21	Production of Fish	Survey
22	Production of Eggs	Survey
23	Crops insured	Administrative
24	Livestock insured	Administrative
25	Credit to Agriculture Sector as a percentage of total loans	Administrative
26	Export to import ratio	Administrative
27	Value of mining exports	Administrative
28	Value of Tourism revenues, Value of MICE (tourism sub-sector) revenues	Administrative
29	Percentage of cells with access to electricity	Administrative
30	Percentage of productive use areas with access to electricity	Administrative
31	Percentage share of renewable energy in power generation mix	Administrative
32	Percentage of villages with access to improved drinking water	Administrative
33	Length of unpaved National roads upgraded to paved (Cumulative)	Administrative
34	Length of national paved road rehabilitated	Administrative
35	Length of feeder roads rehabilitated (Cumulative)	Administrative
36	Percentage of rural households living in integrated planned rural settlements	Survey
37	Percentage of urban population living in unplanned settlements	Survey
38	Percentage of citizens with basic digital literacy skills (15 years above)	Survey
39	National GHG emissions	Administrative
40	Percentage of households in high-risk areas protected from flood- related hazards	Survey
41	Increased climate and nature finance (cumulative)	Administrative
42	Net enrolment rate in pre-primary	Administrative
43	Dropout rate in Primary	Administrative
44	Pupil Trained Teacher ratio in Primary	Administrative
45	Percentage of learners at or above basic proficiency in Kinyarwanda/English/ numeracy in P3.	Administrative
46	Percentage of learners at or above basic proficiency in Mathematics, science and English in S3	Administrative

47	Dropout rate in secondary	Administrative
48	Percentage of students enrolled in TVET as proportion of total students enrolled in upper secondary	Administrative
49	Number of TSS Centers of Excellence established	Administrative
50	Prevalence of stunting among children under five years	Survey
51	Maternal mortality ratio	Survey
52	Under 5 mortality ratio.	Survey
53	Ratio of active licensed Doctors to population	Administrative
54	Ratio of active licensed Nurses to population	Administrative
55	Ratio of active licensed Midwives to population	Administrative
56	Percentage of households with access to improved sanitation facilities	Survey
57	Percentage of population with basic sanitation services	Survey
58	Percentage of graduation participants graduated out of poverty	Survey
59	Proportion of poor and vulnerable population covered by Social Protection systems	Survey
60	Percentage of case backlogs	Administrative
61	Percentage of government services fully digitized (end to end)	Administrative
62	Percentage of citizens owning a single digital identification	Administrative
63	Level of quality service delivery	Administrative
64	Percentage of public entities with an unqualified audit opinion for financial statements, compliance with laws and regulations and value for money	Administrative
65	Level of shared sense of national identity	Administrative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