Rwanda Economy Digitalisation Programme

Education sector policy scoping project

April 2023

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Background

The purpose of the deck is to provide an overview of the education sector in Rwanda. The deck focuses on the priorities of the policymaker – Ministry of Education – and which data sources are available to inform policymaking.

The research was based on data that is publicly available.

This research forms part of the work conducted under the Rwanda Economy Digitalisation Programme, in partnership with the Ministry of ICT and Innovation and the Mastercard Foundation.

Presentation structure

1

Education sector overview and context

2

Policy goals in the education sector and associated indicators

- Key policymakers, affiliated agencies and institutional actors overview
- Main policies governing the education sector
- Affiliated agency links to Education Sector Policy

3

Relevant datasets that can inform policy-making decisions

- Education sector data footprint
- Landscape of data collection
- Matching data sources to indicators

4

Appendix: KPIs of strategies and policies

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Executive summary (1/2)

- **Education is of fundamental importance to Rwanda's economy; enjoys high policy priority**
- **The sector faces various challenges**
  - These include low transitions, high repetition and drop out rates, low enrolment rates for voluntary education and high attrition rates and absenteeism of teachers
  - Key priorities expressed by the MINEDUC include addressing teacher churn and absenteeism; increasing TVET graduates; improving value-for-money in education spending (student performance; infrastructure)
- **The Ministry of Education (MINEDUC) is the chief policymaker in the sector; has seven affiliated agencies**
  - There is considerable coordination among the affiliated agencies
- **The MINEDUC's policies aim to address the challenges facing the sector**
  - The Education Sector Policy (ESP) of 2003 is the key/overarching policy in the education sector (with the National Strategy for Transformation (NST1 2017-2024) setting the overall objectives for socio-economic growth in the country)
  - The Education Sector Strategic Plan (ESSP) includes measurable indicators to track progress towards the ESP objectives
  - The Imihigo (performance contract) targets for the MINEDUC ultimately drive incentives and action within the MINEDUC and stem from the internal annual action plans developed under the ESSP (but do not capture the full range of ESSP indicators)
- **There is an overlap of indicators between key education strategies, indicating policy coherence**
  - There is a core set of shared indicators within the ESSP and the NST1, spanning levels of schooling, access, technology and quality

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Executive summary (2/2)

- **Education sector policy objectives/indicators are measured and tracked using various data sources**
  - The SDMS (EMIS) is the data source for a significant share of the ESSP's indicators; there are also several other sources.
- **But the scope of what is tracked is currently limited (relative to the full range of ESSP indicators)**
  - For example, the Education Statistical Yearbook does not contain very granular details on the full range of ESSP indicators.
  - SDMS was rolled out only recently and is still facing data quality problems.
  - There is scope to "dig deeper" to make the most of the insights from the SDMS and other data sources, including forming a granular understanding of education outcomes at the individual cohort level (a key gap mentioned by MINEDUC technicians, given that the SDMS does not yet go back long enough to be able to track cohort outcomes over time).
- **Integrating the data from the various sources is a priority to enable the MINEDUC's strategic decision making**
  - The MINEDUC is currently integrating the data between different agencies for analysis and better decision making – but this integration is not yet in place.
- **The MINEDUC faces resource/capacity constraints – opportunity for the REDP team to support**
  - There is a key role for the REDP to support the MINEDUC, to combine datasets and mine insights that can speak to the full scope of the ESSP targets.
  - Doing so requires further in-depth engagement with the MINEDUC to understand the key data/indicator gaps, as well as with the affiliated agencies to unlock access to the underlying data that they report at a high level to the MINEDUC

List of acronyms

ACE	Africa Centre of Excellence
CPD	continuous professional development
EICV	Integrated Household Living Conditions Survey
EMIS	Educational Management Information System
ESSP	Education Sector Strategic Plan
GDP	gross domestic product
GER	gross enrolment ratio
GPI	gender parity index
HEC	Higher Education Council
ICT	information and communications technology
IMCC	Inter-Ministerial Coordination Committee
MINEDUC	Ministry of Education
MNOs	Mobile Network Operators
NER	net enrolment rate
NISR	National Institute of Statistics Rwanda
NST1	National Strategy for Transformation
REB	Rwandan Basic Education Board
RP	Rwanda Polytechnic
RTB	Rwanda TVET Board
Rwf	Rwandan franc
SDMS	School Data Management Systems
SEN	special educational needs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UR	University Rwanda
STEM	Science, technology, engineering, and mathematics
TVET	technical and vocational education and training

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1

Education sector overview and context

Key findings

1. Education is an important sector for Rwanda's economy, contributing to employment and livelihoods.

2. However, it still faces challenges around low transitions; high repetition and drop-out rates and low enrolment rates for voluntary education as well as high attrition rates and absenteeism of teachers.

3. The Rwandan government plays a key role in the provision of education, plus there is an extensive network of government-aided faith-based-funded schools.

4. Basic education is constitutionally free – but there are still costs (e.g., contributions to the school feeding programme).

Education importance in Rwanda

Key sector characterised by high enrolment for compulsory schooling but issues with enrolment in voluntary education

Economic importance

The Rwandan government allocated an equivalent of 11.5% of its total budget to education in 2018 (making it the 2nd largest budget category in Rwanda) but low versus counterparts like Kenya (19%), Burundi (18.8%) and Ethiopia (24%)

Contribution to employment

In 2021, 121,646 staff were employed (an increase of 24% from 2019), of which 113,238 are teaching staff across all levels. Total staff in the sector contribute approximately 4% to total employment

Education programme graduates make up 16% of total graduates (3rd highest)

Contribution to livelihoods

Education plays a major role in supporting human capital – aiding a country's productivity in all sectors – which has a direct positive link to economic growth

Coverage

- Education is compulsory for nine years – 6 years of primary education (ages 7-12) and 3 years of lower secondary education (ages 13-15). An optional further 3 years of education is offered for senior secondary level education (16-18).
- In 2021, there were 4,033,046 enrolled pupils, with 68% in primary and 19% in secondary education. In 2019, 86,140 students were enrolled in tertiary education.
- Enrolments rates differ for compulsory and non-compulsory education. While almost every child aged 7-15 is enrolled (more than 95%), only about 56% aged 16-18 were enrolled.

In 2019, the World Bank and the Government of Rwanda signed a USD200 million agreement, 63% of which was allocated to construction – including of classrooms (as part of the plan to reduce overcrowding in Rwandan schools).
Growth in the number of teachers can also be attributed, at least in part, to a decision by the government to hire graduates without a teaching degree in order to address the challenge of teacher shortages. Teacher salaries were also increased by at least 40% in August 2022.

Source: MINEDUC (2021); MINEDUC (2022); Newtimes, (2022); NISR (2021); Rwigema, (2020); The global economy (2018); UNICEF (2018)

Education sector overview

Government aided schools dominate the education sector in Rwanda

All schools are governed by the **Ministry of Education,** but private sector schools can also be governed by international institutions

	Private sector	Public sector	Government-aided
Definition	• Established by an individual, a legal association of persons, a faith-based organisation, a national non-governmental organisation, an international non-governmental organisation recognised in Rwanda or an international education institution or • Established in Rwanda by another country	• Established by the Government or • Previously private and handed over to the Government by its owner via a written document by both parties or • That is government-subsidized and has been turned into a public education institution in accordance with procedures specified in the agreement	• Built by the government on land owned by individuals or faith-based/international organisations or • Built by government in collaboration with organisations on land owned by the organisations or • Built by organisations whose rehabilitation, extension and salary payments of staff (including teachers) is supported by government
Pre-nursery centers: 103	32%	68%	
Nursery centers: 3741	27%	29%	**44%**
Primary schools: 3691	13%	35%	**51%**
Secondary schools: 2231	15%	36%	**49%**
General HEIs: 76	92%	8%	n/a
TVETs: 344	n/a	100%	n/a

Basic education is free, but parents are still required to make contributions such as towards the school feeding scheme – contributing about Rwf94 per student per meal.
Digital payments has grown, with several Mobile Network Operators (MNOs) and online platforms creating the option for digital payments to help parents and schools have full control over the payment of school-related costs. However, since basic education in Rwanda is constitutionally free, it is assumed that school expenses such as school clothes or feeding programmes are the main digital payments use case. In addition, in 2011, SACCOs started permitting teachers residing far from a SACCO branch to receive salaries via mobile money.

Source: Integra (2011); MINEDUC (2021); New Times, (2022); MINEDUC (2021)

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Education quality

Low transition, high repetition and drop-out rates as well as high teacher attrition rates still characterise Rwanda's education sector

Categories		Primary	Lower secondary	Upper secondary
Pass rate	Actual	80%	80%	87%
	ESSP target	No ESSP targets		
Transition rate	Actual	-	**66%**	**77,4%**
	ESSP target	-	82.1%	89.3%
Repetition rate	Actual	**10.9%**	**8.9%**	**5%**
	ESSP target	10.6%	5.6%	2.2%
Drop out rate	Actual	**9.5%**	**11%**	**7.8%**
	ESSP target	3.7%	4.3%	2.2%

Recent improvement in pupil to teacher ratio. Data from 2018 shows overcrowding at primary level with the pupil to teacher ratio at 60:1 (worse than the SSA average). Pupil to teacher ratios have subsequently declined due to government's recent intervention to add more classrooms and staff; in 2021, the ratio decreased to 45:1 (better than SSA average of 58:1). At the secondary level, this ratio decreased from 28:1 in 2018 to 27:1 in 2021 (better than SSA average of 43:1).

Low tertiary enrolment and graduation rates. While the gross enrollment rate (in 2018) for secondary education was 40.9%, the gross enrollment rate in tertiary education was 6.73% and graduation rates were estimated to be 7.43%.

High teacher absenteeism. Late arrivals and early departure found to be main form of teacher absence: at the primary and secondary level 17% and 12% of teachers, respectively, claim to arrive late/depart early in a week. Late arrivals mainly due to health, weather, family reasons and societal obligations and official school business for both school levels.

High teacher turnover. A 2020 study found that 20% of teachers left their jobs, of which 11% were from the public-sector. Replacing these teachers is a challenge; 23% of teachers who exited their jobs were not replaced the following year.

Lack of school facilities. Rwanda has a lack of latrines in schools. In 2019, there was a shortage of more than 31,000 latrines

Source: MINEDUC, (2021); Pascaline, (2020); UNESCO (2021) ; UNICEF (2020); UNICEF (2021); Zeitlin (2020). *Secondary level covers both upper and lower secondary

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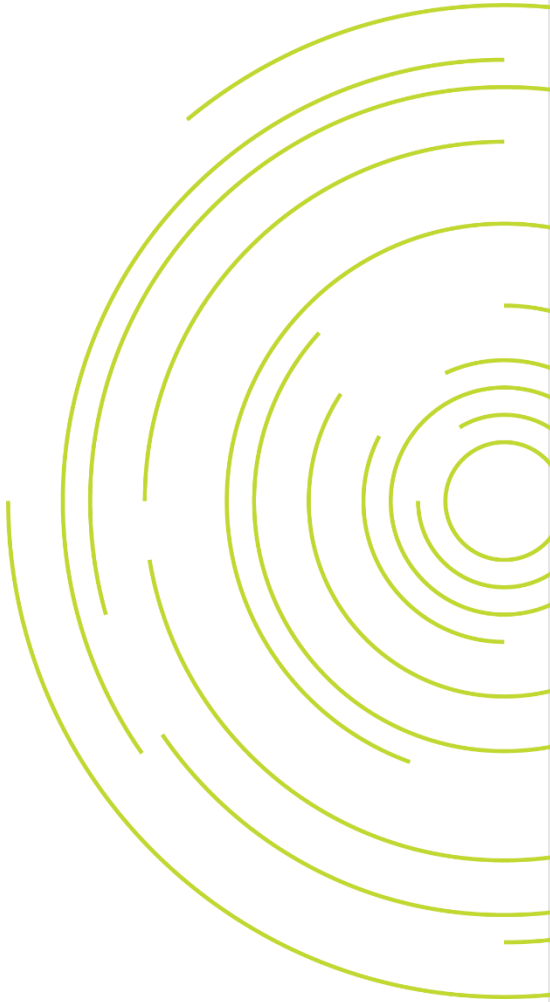
Policy goals in the education sector and associated indicators



Key findings

Key policymakers, affiliated agencies and institutional actors

- The MINEDUC is the key policymaker in the education sector
- It has seven affiliated agencies with whom it coordinates on a very regular basis
- The MINEDUC also meets with other relevant Ministries
- Internal and external coordination via the MINEDUC plays an important role in achieving policy objectives

Main policies governing the education sector

- The NST1 (2017-2024) is the main strategy for Rwanda's socio-economic growth plans
- The Education Sector Policy (ESP, 2003) is the main education-related policy and sets out clear education policy objectives
- The ESSP was developed and is updated to operationalise/measure the ESP objectives and set granular indicators towards the achievement of the objectives
- The ESP aligns with the NST1 via eight shared indicators across the NST1 and ESSP using the same data sources
- Various other sub-policies and strategic plans within MINEDUC support its overall objectives
- The MINEDUC's Imihigo (performance contract) targets derive from internal annual action plans (not published publicly) set under the ESSP, which provides the five-year strategic objectives horizon

Affiliated agency links to Education Sector Policy

- There is a large degree of coherence and complementarity between the objectives set for individual affiliated agencies and the ESP and ESSP

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Key policymakers and affiliated agencies overview

The Ministry of Education (MINEDUC) is the primary policymaker for Rwanda's education sector.

It has seven affiliated agencies, fulfilling different roles within the education system.

MINEDUC

Umwalimu Sacco*:

Contributes to the socio-economic conditions of Rwandan teachers through mobilising a pool of savings to be offered as loans at competitive rates

Rwandan Basic Education Board:

Aimed at coordinating and fast-tracking basic education programmes/ activities to provide quality education to Rwandans

Higher Education Council:

Supports the transformation of higher education so that it is fit for purpose and internationally credible

Rwanda TVET Board:

Promotes TVET from level one (1) to level (5) of the Rwanda TVET Qualification Framework

Rwanda Polytechnic:

Aims to expand the TVET system with collaboration from development partners and private sector actors

Rwanda National Commission for UNESCO:

Contributes to realising education goals in Rwanda

University of Rwanda:

Established in 2013, its vision includes being a leading University that develops highly enterprising graduates

National Examination and School Inspection Authority:

Monitors the implementation of norms and standards in school inspections and administrates in Basic Education

- All agencies report to the MINEDUC and there are different working groups for each.
- Coordination, communication and engagement occur on an almost daily basis

Source: UNICEF (2021). * Not an affiliated agency of the MINEDUC, but an important agency in the education sector that holds data on teachers. ** Sources for each specific agency are included in the following slides.

Social Cluster Ministries

The MINEDUC feeds into the broader social policy agenda via the coordination structure of the Social Cluster Ministries

- Social Cluster Ministries, coordinated by an Inter-Ministerial Coordination Committee (IMCC), drawn from the Social Cluster Ministries, meet on a quarterly basis to review the progress on socially-related matters in Rwanda.
- Each Ministry has its own KPIs.

Source: Malabo Montpellier Panel (2017)

Main policies governing the education sector

The ESP is the primary strategy governing the education sector, dovetailing with the overarching priorities of the NST1*

NST1

National Strategy for Transformation (NST1 2017-2024)

- NST1 is the government strategy that sets overarching priorities, of which education is a core pillar.

Overarching strategy in Rwanda; includes education-related priorities

ESP

The **Education Sector Policy** (2003)

- The ESP is the sector-specific policy to give effect to government's education objectives.
- The ESP is the foundation for basic, technical and higher education in Rwanda.
- The Education Sector Policy does not have measurable indicators; instead, it has strategic and overarching objectives.

Education-specific policy framework for Rwanda with broad education-related priorities

* Sources for each strategy are included in the following slides

National Strategy for Transformation (NST1)

National Strategy for Transformation
(NST1 2017-2024)

Pillar 1: Economic transformation:

- Accelerate inclusive economic growth and development founded on the Private Sector, knowledge and Rwanda's Natural Resources.

Pillar 2: Social transformation:

- Develop Rwandans into a capable and skilled people with quality standards of living and a stable and secure society.

Pillar 3: Transformational governance:

- Consolidate Good Governance and Justice as building blocks for equitable and sustainable National Development.

- **Digitisation** and **payments** objectives are centered in **Pillar 1:**
  - Increase value of payment transactions done electronically as a percentage of GDP from 26.9% (2017) to 80% by 2024.
- **Education** objectives are centered in **Pillar 2:**
  - "Ensure Quality of education for all aiming at building a knowledge-based economy".

The NST1 includes 34 NST outcomes and 44 indicators

Within these, 5 outcomes and 8 indicators are specifically associated with education.

E.g., Increased access to education programmes; strengthened STEM across all levels of education.

A full outline of the indicators can be found in Appendix B.

Source: National Strategy for Transformation (NST1 2017-2024)

Education Sector Policy (ESP)

General objectives

1. To educate a free citizen who is liberated from all kinds of discrimination, including gender-based discrimination, exclusion and favouritism.
2. To contribute to the promotion of a culture of peace and to emphasize Rwandese and universal values of justice, peace, tolerance, respect for human rights, gender equality, solidarity and democracy.
3. To dispense a holistic moral, intellectual, social, physical and professional education through the promotion of individual competencies and aptitudes in the service of national reconstruction and the sustainable development of the country.
4. To promote science and technology with special attention to ICT.
5. To develop in the Rwandese citizen an autonomy of thought, patriotic spirit, a sense of civic pride, a love of work well done and global awareness.
6. To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group.
7. To transform the Rwandese population into human capital for development through acquisition of development skills.

Specific policy objectives

1. To ensure that education is available and accessible to all Rwandese people.
2. To improve the quality and relevance of education.
3. To promote the teaching of science and technology with a special focus on ICT.
4. To promote trilingualism in the country.
5. To promote an integral, comprehensive education orientated towards the respect of human rights and adapted to the present situation of the country.
6. To inculcate in children and sensitise them to the importance of environment, hygiene and health and protection against HIV/AIDS.
7. To improve the capacity for planning, management and administration of education.
8. To promote research as a mobilising factor for national development and harmonize the research agenda.

Source: Education Sector Policy (MINEDUC, 2003)

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ESSP gives effect to the ESP

The Education Sector Strategic Plan (ESSP) is a time-bound strategy with indicators to measure the ESP objectives

Education Sector Policy

ESSP

- ESSP (2004-2008)
- ESSP (2008-2012)
- ESSP (2013-2018)
- ESSP (2018/19-2023/24)*

The current ESSP builds upon the achievements of the previously published ESSPs.

* Current ESSP strategy

Source: MINEDUC (2021).

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Education Sector Strategic Plan (ESSP)

- The current ESSP includes **9 strategic priorities**, which are further broken down into **sub-outcomes and measurable indicators**.
- Accommodates new thinking and policy directions that will support Rwanda's aspirations for transformation from a predominantly agrarian-based, low-income economy to an industrial upper middle-income nation by 2035.
- The development of **ICT to support quality in education**, and the **implementation of the new curriculum**, is reflected as a Government priority.

9 strategic priorities and **17 sub-outcomes**, from which **137 measurable indicators** are defined

An outline of the KPIs can be found in the Appendix.

Nine overarching strategic priorities:

1. Enhanced quality of learning outcomes.
2. Strengthened CPD and management of teachers.
3. Strengthened STEM across all levels of education.
4. Enhanced use of ICT to transform teaching and learning and support the improvement of quality.
5. Increased access to education programmes.
6. Strengthened modern school infrastructure and facilities.
7. Equitable opportunities for all Rwandan children and young people at all levels of education.
8. More innovative and responsive research.
9. Strengthened governance and accountability.

Source: Education Sector Strategic Plan (2018/19-2023/24)

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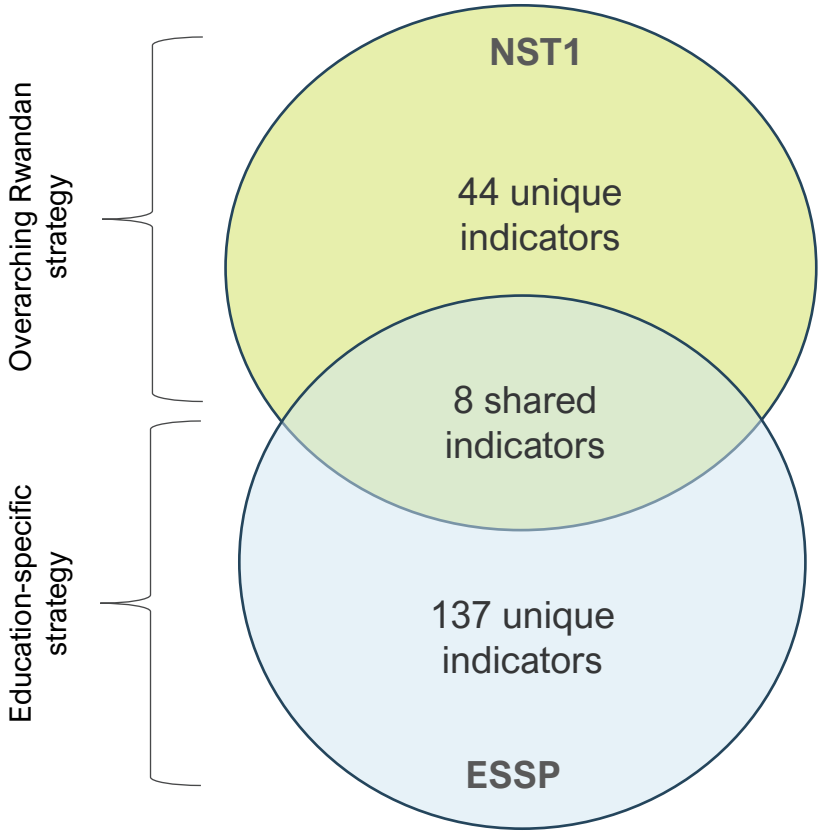
Shared education indicators between the NST1 and the ESSP

Unique and shared indicators per strategy



44 unique indicators relating to social, transformative and economic goals in the NST1.

8 education indicators, of which all are reflected in the ESSP:

1. Increased access to pre-primary education.
2. Percentage of schools with access to computers.
3. Pupil: Trained Teacher ratio (primary).
4. Percentage of learners achieving minimum proficiency in numeracy in S3.
5. Percentage of employers satisfied with TVET graduates.
6. Percentage of student's enrolment in TVET as proportion of total students.
7. Percentage of students enrolled in STEM related courses as proportion of total students in Higher education and TVET.
8. Reduced drop out at primary, lower and upper secondary.

Sources: ESSP (2018/19-2023/24), NST1 (2017-2024)

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Other MINEDUC policies

While the ESP and the ESSP are the overarching documents, there are 14 other policies and two strategic plans aligned with the mandate of supporting quality education across Rwanda

Policies and strategic plans		
Adult literacy policy	MINEDUC ICT management policy	School health strategic plan
Adult literacy strategic plan	National STI policy 2020	School sports policy 2020
Girls' education policy	Nine years' Basic education policy	Special needs policy
Higher education policy	Risk management policy	Special needs strategic plan
TVET policy	Rwanda national science policy	Teacher development policy
ICT in education policy	School feeding policy	

Source: MINEDUC (2021)

The MINEDUC's Imihigo

- Imihigo is a performance contract introduced in 2006 as part of efforts to reconstruct Rwanda and is used across government to ensure accountability.
- All levels of government (including MINEDUC) are required to develop their Imihigo and have them evaluated.
- ESSP indicators are used to inform the MINEDUC's internal annual action plans (are not publicly available), through which Imihigo targets are set (and thus there is some overlap between the ESSP and the Imihigo).

The MINEDUC-Imihigo report identifies:

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Outcomes

Indicators relating to the outcomes

The outcomes and indicators are derived from the MINEDUC's internal annual action plan

The action plan itself is created from assessing ESSP performance and indicators, but the indicators are not exactly the same between the ESSP and the Imihigo.

Some indicators between the ESSP and Imihigo are similar and have similar objectives. However, Imihigo captures indicators that are not in the ESSP. For example: "*Enhanced the quality of education through improved teacher's welfare and schools' operations*"

Source: Imihigo (n.d), MINECOFIN (n.d)

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Affiliated agency links to Education Sector Policy*: Rwandan Basic Education Board (REB)

Responsibilities and objectives	How objectives link with Education policy goals
Learners: curriculum development – provide teaching materials and guides, methodologies and establish teaching methods for nursery, primary, secondary, specialized schools and adult literacy schools; management of national examinations	**ESSP outcome 5:** Increased access to education programmes To ensure that education is available and accessible to all Rwandese people.
Staff development and capacity building: coordinate programs and activities to ensure teachers' development, build their capacities and monitor their management and recruitment (done with Ministry of Public service and Labour, MINEDUC and districts (e.g. the city of Kigali)	**ESSP outcome 2:** Strengthened CPD and management of teachers
Drive digitalisation of the education policy: establish and monitor the E-Learning program in basic education; promote the use of ICT in basic education; responsible for the roll-out of ICT devices in schools	**ESSP outcome 4:** Enhanced use of ICT to transform teaching and learning and support the improvement of quality **Education Sector Policy (2003):** To promote science and technology with special attention to ICT.

Source: REB (2022). * ESP (2003) and the ESSP (2018/19-2023/24),

Affiliated agency links to Education Sector Policy*: Higher Education Council (HEC)

Responsibilities and objectives	How objectives link with Education policy goals
Quality: advise on all matters relating to the quality and standards of higher education; organise and oversee the delivery of a national capacity building programme to support the transformation of higher education.	• **Education sector policy (2003)**: To improve the quality and relevance of education. • **ESSP outcome 1:** Enhanced quality of learning outcomes • **ESSP outcome 6:** Strengthened modern school infrastructure and facilities across all levels of education in Rwanda
Effective communication: provide an advisory service to all potential students requesting guidance; advise institutions on funding opportunities.	• **Education sector policy (2003):** To ensure that education is available and accessible to all Rwandese people. • **ESSP outcome 5:** Increased access to education programmes
Widen participation of institutions in communities: marketing and student recruitments	• **Education sector policy (2003):** To ensure that education is available and accessible to all Rwandese people. • **ESSP outcome 5:** Increased access to education programmes
Participation and non-discrimination: ensure equality and diversity; staff recruitment and student admission monitored by ethnicity, gender, disability, religion and age.	• **ESSP outcome 7:** Equitable opportunities for all Rwandan children and young people at all levels of education. • **Education sector policy (2003)**: To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group.
Quality learning opportunities for students: • Ensure the link between teaching and research. • Ensure that assessment is explicit, valid, and reliable.	• **ESSP outcome 1:** Enhanced quality of learning outcomes • **ESSP outcome 8**: More innovative and responsive research.

Source: HEC (2007). * ESP (2003) and the ESSP (2018/19-2023/24)

Affiliated agency links to Education Sector Policy*: Rwanda TVET Board (RTB)

Responsibilities and objectives	How objectives link with Education policy goals
Design and distribute curricula, teaching materials, trainer's guides, methodologies and establish training methods	• **Education sector policy (2003):** To improve the quality and relevance of education
Promote use of ICT in TVET	• **ESSP outcome 4**: Enhanced use of ICT to transform teaching and learning and support the improvement of quality • **Education sector policy (2003):** To promote science and technology with special attention to ICT
Coordinate and fast track TVET programmes and activities	• **ESSP outcome 5:** Increased access to education programmes • **ESSP outcome 1:** Enhanced quality of learning outcomes
Coordinate programmes and activities to ensure trainers' development, build capacity and monitor their management	• **ESSP outcome 2:** Strengthened CPD* and management of teachers
Advise Government on all activities which can fast track TVET	

RTB lists **23** Indicators found in the ESSP and the majority of these are sourced from the SDMS (EMIS)
(see appendix here)

Source: RTB (2022). * ESP (2003) and the ESSP (2018/19-2023/24)

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Affiliated agency links to Education Sector Policy*: Rwanda UNESCO

The Rwanda **UNESCO National Education Support Strategy** (UNESS) process started in April 2007 and is grounded in the **Rwanda Education Sector Strategic Plan (2006-2010).** Five priority areas identified under the Rwanda UNESS for 2008-2009, but the link between UNESCO's mandate and more recent policy objectives is unclear.

UNESCO Rwanda country programme activities and goals also contribute to the United Nations Development Assistance Framework (UNDAF)

Indicators	Sub-indicators	Link with Education objectives
Enrolment	• Early childhood Development and Education (ECDE) for teachers and parents. • Development of ECDE materials • Implementation of strategy on ECDE	• **Education sector policy (2003)**: To ensure that education is available and accessible to all Rwandese people.
Retention	• Development of operational special needs education programme that is inclusive	• **Education sector policy (2003):** To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group.
Achievement	• Life skills integration into curriculum • Improving literacy levels and setting up adult and continuing education • Development of Strategic plan for technical and vocational education (TVET) • Elaboration of TVET curricula • Identification of equipment needs and preparation of long-term financial plan	

Source: UNESCO (2007). *ESP (2003) and the ESSP (2018/19-2023/24)

Affiliated agency links to Education Sector Policy*: University of Rwanda (1/2)

Responsibilities and objectives	How objectives link with Education policy goals
Develop interdisciplinary, problem-based academic programmes aligned with Rwanda's development needs.	• **Education sector policy (2003):** To improve the quality and relevance of education. • **Education sector policy (2003)**: To ensure that education is available and accessible to all Rwandese people.
Integrate IT-based resources from around the world.	• **ESSP outcome 4:** Enhanced use of ICT to transform teaching and learning and support the improvement of quality • **Education sector policy (2003)**: To promote the teaching of science and technology with a special focus on ICT
Ensure students have the leadership, entrepreneurship and management skills needed to create employment.	• **ESSP outcome 1:** Enhanced quality of learning outcomes
Prepare students for service to their communities and country through applied service-learning programmes nationally and internationally	-
Create applied, evidence-driven, research centres focused on problem solving, aligned with Rwanda's development needs.	• **ESSP outcome 8:** More innovative and responsive research and development in relation to community challenges
Develop continuous education programmes for upgrading skills and knowledge.	• **Education sector policy (2003):** To improve the quality and relevance of education.

Source: University of Rwanda (2022), ESSP (2003) and the ESSP (2018/19-2023/24)

Affiliated agency links to Education Sector Policy*: University of Rwanda (2/2)

	Responsibilities /objectives	How objectives link with Education policy goals
UNR Policies	Capacity and staff development: **UNR ten-year staff development plan**	**ESSP outcome 2**: Strengthened CPD* and management of teachers
	To support in building a Rwandan society free from any form of gender-based discrimination: **UNR Gender policy**	**Education sector policy (2003):** To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group.
	Policy aims to promote students' employability and career prospects: **Careers and employability service policy**	**ESSP outcome 1**: Enhanced quality of learning outcomes
	ICT Masterplan 2017/8-2021/22	**ESSP outcome 4:** Enhanced use of ICT to transform teaching and learning and support the improvement of quality

Source: University of Rwanda (2022); * ESP (2003) and the ESSP (2018/19-2023/24)

Affiliated agency links to Education Sector Policy*: National Examination and School Inspection Authority

Responsibilities /objectives	How objectives link with Education policy goals
To set standards for accreditation of private basic education schools and TVET schools from level one (1) to five (5).	• **Education sector policy (2003):** To improve the capacity for planning, management and administration of education.
To monitor the implementation of norms and standards in public, Government subsidised and private basic education and TVET schools from level one (1) to five (5).	• **Education sector policy (2003):** To improve the capacity for planning, management and administration of education.
To ensure the quality of education in public, Government subsidised and private basic education and TVET schools from level one (1) to five (5).	• **ESSP outcome 1:** Enhanced quality of learning outcomes • **Education sector policy (2003):** To improve the quality and relevance of education.
To prepare, conduct and mark national examinations.	-
To publish national examinations results.	-
To orient students of primary and ordinary level schools who passed the national examinations.	-

Source: NESA (2022).* ESP (2003) and the ESSP (2018/19-2023/24)

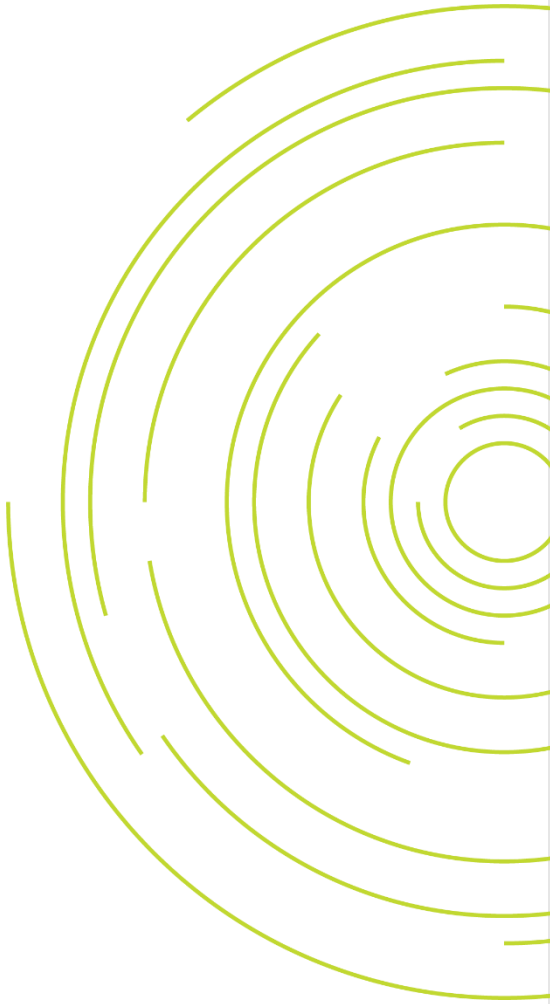
Affiliated agency links to Education Sector Policy*: Rwanda Polytech

Responsibilities /Objectives	How objectives link with Education policy
To prepare technical and vocational education curricula for their use at various technical vocational training levels and submit for approval.	• **Education sector policy (2003):** To ensure that education is available and accessible to all Rwandese people • **ESSP outcome 5:** Increased access to education programmes
To offer technical and vocational courses leading to certificate, diploma, bachelors, and higher levels.	• **Education sector policy (2003):** To ensure that education is available and accessible to all Rwandese people • **ESSP outcome 5:** Increased access to education programmes
To provide science and technology based TVET and education which enable the beneficiary to create jobs for personal development and contribute to national development. To carry out and promote research and technology in technical and vocational fields and disseminate their findings to foster national development.	• **Education sector policy (2003):** To promote the teaching of science and technology with a special focus on ICT. • **ESSP outcome 3 :** Strengthened STEM across all levels of education • **ESSP outcome 4:** Enhanced use of ICT to transform teaching and learning and support the improvement of quality
To coordinate programmes and activities aimed at developing teaching and research staff within institutions of technical and vocational education, upgrade their knowledge and skills capacities and improve their management.	• **ESSP outcome 2:** Strengthened CPD* and management of teachers • **ESSP outcome 9:** Strengthened governance and accountability across all levels of education in Rwanda
To contribute to finding solutions to other problems related to national development.	-
To cooperate and collaborate with other national, regional or international institutions with similar mission(s) in order to achieve its mission.	-

Source: RP (2022).* ESP (2003) and the ESSP (2018/19-2023/24)

3

Relevant datasets that can inform policy-making decisions



Key takeaways

Education sector data footprint

- The MINEDUC tracks (collects, analyses and utilises) a large amount of data from multiple sources, notably the SDMS
- A substantial amount of data is received in report format from affiliated agencies (and not as raw data)
- Some data is sourced from the MINEDUC by affiliated agencies upon request
- Plans for data integration are currently underway to streamline processes
- Integration of datasets will be beneficial to store and analyse data in one place to make better and more informed decisions

Matching data sources to indicators

- Variety of data sources used to measure ESSP indicators
- SDMS (as the country's EMIS) is the primary data source to measure/populate ESSP indicators, and it generates live data; however, it still experiences teething pains
- The MINEDUC has not been able to track individual/cohort data/outcomes (e.g. how people progress through the school system)
- The MINEDUC faces data analysis capacity constraints (currently supported by Cenfri/MCF interns on a temporary basis)

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Education sector data links

The MINEDUC has access to significant data from various data sources

3 Data collection avenues

1. School Data Management Systems (SDMS)

2. National Institute of Statistics Rwanda (NISR)

3. Annual school census:

According to the MINEDUC's latest (2020/21) Education statistical yearbook, data for the yearbook is collected via questionnaires through an annual school census. The questionnaires are completed by headteachers and submitted to Sector Education Officers (SEOs) and District Education Officers (DEOs). The MINEDUC's ICT office is responsible for importing the questionnaires from every district to MINEDUC servers.

*According to our data fellows at the MINEDUC, however, the **relevance** of the school census is likely to **decline** as the SDMS becomes more reliable/comprehensive.*

Sources for each data source are detailed in the following slides

1. School Data Management Systems (SDMS) 1/2

Purpose of the SDMS:

Address the issue of delays in disbursement of Government financial support to schools – funds received by schools is proportional to number of students; slow verification of number of students meant slow disbursement of funds

Improve and facilitate education planning and management, strategic decision-making, policy formulation and budgeting based on accurate data; advance public finance and routine management in schools

About the SDMS:

Developed by the Ministry of Finance and Economic Planning, MINEDUC and the National Institute of Statistics of Rwanda

- SDMS fulfils the function of an Educational Management Information System (EMIS) in Rwanda but has not yet been integrated across all levels of education in Rwanda. **It was piloted in 2018 and 2022 is the first 'complete' year.**
- Note: MINEDUC also reports data (via questionnaires*) to UNESCO for UNESCO's global education statistics database (which is called the EMIS on MINEDUC and UNESCO websites).

Covers a range of topics, including:

- Infrastructure
- Pupils
- Staff information
- Training and capacity building
- ICT, science and technology
- Environment
- School health
- School feeding programme

Data collected from SDMS

- SDMS collects data from three categories:
- **Students**: pass rate, repletion rate, dropout rate.
- **Staff**: number of staff, student-staff ratio, qualified teachers, gender parity.
- **School assets**: sports facilities, number of classrooms, new classrooms.

Source: EMIS (2022).; MINEDUC (2020). * Questionnaires are downloadable (MS Excel) on the MINEDUC website for primary, tertiary and TVET (levels 1-5).

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2. School Data Management Systems (SDMS) 2/2

SDMS data collection, analysis and dissemination process

- Through the SDMS, data is collected on students, staff and school assets on an ongoing basis
- The scope of the SDMS includes data from nursery to upper secondary and TVET-level schooling
- Data is submitted by (head)teachers
- Head teachers have primary responsibility for inputting data to the SDMS and they do so on a live basis, straight into an online portal
- At a district level, the MINEDUC has deployed a team of 30 interns for each district to help MINEDUC increase teachers' data collection capacity
- Once this data is imported/recorded, the MINEDUC can share it with schools, districts and nationally
- The MINEDUC has a department of 13 staff members working on monitoring SDMS processes
- The software used by the MINEDUC has multiple report generation features which can be used to calculate education indicators once data entry is complete
- However, there is only one data analyst in the MINEDUC's SDMS department (who is currently supported by two Cenfri/MCF data analyst interns)

To make the SDMS fully integrated, it needs to include the pre-nursery and HEC levels of schooling, too. There are also **issues with the quality** of the data in the SDMS; only **40 variables** can be reliably tracked and **2022** is the first 'fully operational' SDMS year (piloting with 100 schools in 2018)

Source: MINEDUC (2020), EMIS (2022), Stakeholder meeting (KII with the MINEDUC, 2022), meeting with MINEDUC Cenfri interns, 2022

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2. National Institute of Statistics Rwanda (NISR)

Purpose of MINEDUC-NISR collaboration:

NISR data is used for the calculation of indicators based on total population, and for indicators which require data for two consecutive years (like transition, promotion, repetition, and dropout rates)

To collect the missing data, MINEDUC submits a formal request to NISR to ensure specific questions are included in the next national survey

About NISR:

The NISR is an independent data collection and analysis institution in Rwanda that is the country's primary data processor

NISR is a key data source for the MINEDUC.

MINEDUC requests outstanding data from the NISR.

MINEDUC utilises the NISR for education-related data statistics.

The collected NISR data helps MINEDUC measure indicators.

Previous data points requested from MINEDUC include:

- Employment rate for graduates of Secondary, TVET and Higher Education
- Adult literacy rate measurements
- Proportion of employers who are satisfied with the performance of graduates

Source: NISR (2022)

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Landscape of data collection

Examples of data collected and disseminated by other agencies

Agency	Examples of data collected*	How data is collected and disseminated*
REB	• Information on teachers and teacher trainings	• Collection: LARS assessments conducted every two years; relies on NESA for data on national examinations • Dissemination: REB reports
HEC	• HR record for employees (and other HR-related information) • Application and registration forms for students • Module evaluation questionnaires • Number of theses published	• Collection: Liaises with the UR for some of its data • Dissemination: HEC reports
RTB	Unknown	• Collection: Relies on the RP for data related to TVET
UNESCO	• [See previous slides on EMIS; questionnaires on website]	
UR	• Facts and figures on university graduates, students, staff and their publications such as: enrolment rates, number of graduates, non-STEM VS STEM graduates by gender; total number of publications.	• Collection: Liaises with the HEC for some of its data
RP	• Learner information by demographics; by school • Number of learners applying for examinations • Number of learners who have passed/failed examinations	• Dissemination: RP reports
NESA	Unknown	• Dissemination: Provides inputs to the REB (but does not seem to be a direct data source for the MINEDUC)

Data collected is currently sourced upon request; plans for data integration in motion

*Not comprehensive; based on desk research/online documentation available

Source: ESSP (2018/19-2023/24)

BK Techouse

BK Techouse is a potential, but untapped, data source for the MINEDUC

About BK Techouse:

BK Techouse is a tech solutions entity that offers internet of things, software, data, broad band and digital payments services across 4 sectors – including the education sector.

The Education sector is served through its **Urubuto** product, which is a school management solution developed for schools, students and parents. **Urubuto's** features include: school fee management, school management, student's behaviour, academics, communication, finance and accounting, library management and advanced analytics. Presently the system has more than **650 active institutions**

To join the **Urubuto** system schools register on the platform. **Urubuto** has 3 different packages, as listed below:

(i) **Urubuto Pay**, offered at zero costs, enables digital payments of school fees, fee management and collection reporting

(ii) **Urubuto Academics** (includes Urubuto Pay) offers features such as school activities, timetable management, grading and transcript management, student behaviour, student and staff attendance, teacher management and authority matrix and academic BI reports.

(iii) Urubuto SRM and HR management- coming soon. (includes Urubuto Academics and Urubuto Pay) includes student admission and registration, students' health management, virtual classroom, HR and payroll management, library management and extra-curricular activities management.

The Urubuto system enables schools to gather, analyse and interpret data and the MINEDUC is currently working with/collaborating with BK Techouse (and, in future, wants to have all schools use this system). However, the extent to which the MINEDUC is currently accessing the data collected through this tech solution is not clear.

Source: Bk Techouse (2022)

The MINEDUC's plans for dataset integration

- At present, the various databases/datasets are function-specific and data is collected independently.
- The databases/datasets and systems are currently incompatible due to differences in architecture, standards and definitions.
  - This leads to inconsistencies in data describing e.g. a single entity.
- Efforts have been underway to develop a single database across the education sector (since at least 2018, e.g. UNICEF support to reconcile the (at-the-time) 12 systems managing education information).
  - The database will be developed in collaboration with the REB, the Workforce Development Authority and others like the HEC and the Rwanda Polytechnic.

Source: Stakeholder meeting (KII with the MINEDUC, 2022); UNICEF (2019)

Matching data to indicators (in theory)

SDMS, which is used to populate the EMIS, dominates as data source for the ESSP

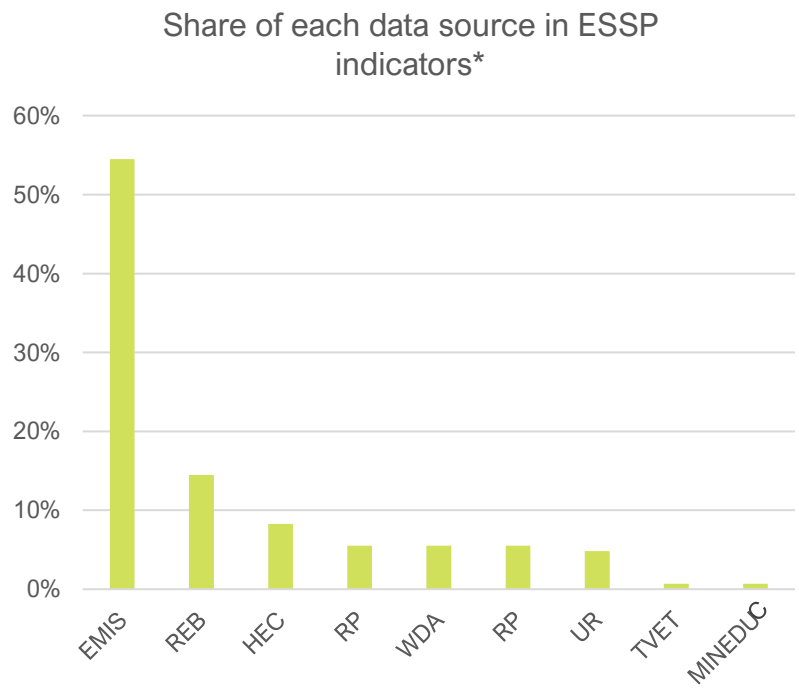
- The ESSP indicators rely on a variety of data sources, but the SDMS is listed as data source to measure 55% of the ESSP indicators.
- The REB and HEC are used to measure 14% and 8% of the indicators, respectively.

9 → 17 → 137

9 strategic priorities

17 outcomes from the priorities

137 indicators from the outcomes



Source: ESSP (2018/19-2023/24). * Own analysis of ESSP (2018/01-2023/24) indicators.

Detailed breakdown of data sources utilised for the ESSP

SDMS (EMIS[1]) is the key dataset

Sector outcomes	No. of indicators	No. of data sources	Most used data source	Contribution
1.1. Learners achieve basic levels of literacy and numeracy in early grades and beyond	6	1	REB	100%
1.2. Learners enter primary school at the correct age and successfully complete 12 years	14	1	*EMIS*[1]	100%
1.3. TVET and HEI are responsive to labour needs and Rwanda's social and economic development	6	3	HEC	66%
2.1. Schoolteachers, TVET instructors and higher education lecturers have appropriate levels of skills and competencies to deliver the curriculum	5	3	REB	60%
2.2. Improved management, welfare and deployment of teachers to attract high quality teachers	8	3	*EMIS*	75%
3.1: STEM strengthened across all levels of education	8	2	*EMIS*	87%
4.1: ICT strengthened across all levels of education	19	5	*EMIS*	57%
5.1: All children complete school readiness programmes	2	1	*EMIS*	100%
5.2: Increased number of students enrolled in primary, secondary TVET and higher education	11	1	*EMIS*	100%
5.3: Increased adult literacy and numeracy	2	1	EICV	100%
6.1: All schools, TVET and higher education institutions have modern infrastructure, facilities and resources	23	4	*EMIS*	87%
7.1: Ensure gender parity in participation and achievement at all levels of education	12	2	*EMIS*	50%
7.2: Increased participation of children with disabilities and SEN at all levels of education	8	3	*EMIS*	62%
8.1: Increased research and development to community challenges with innovative approaches	3	2	HEC	50%
9.1: Improved leadership in schools, TVET and higher education institutions, as well as administration, management and support services	5	4	RTB	60%
9.2: Improved public-private partnerships in education	4	2	RTB	50%
9.3: Improved linking of central and decentralized education planning	1	1	MINEDUC	100%

There is a high likelihood that most of these indicators are not from data but from reports

Source: ESSP (2018/19-2023/24) & own analysis of ESSP (2018/01-2023/24) indicators.

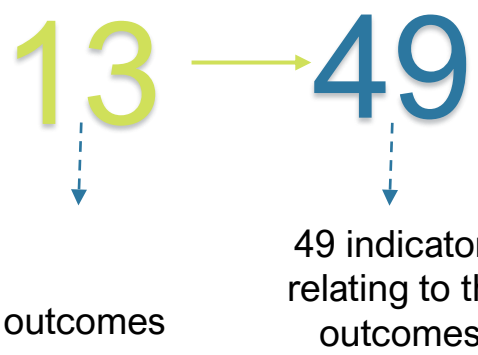
[1] EMIS data collected through the SDMS

From theory (policy) to practice (indicators tracked)

Link between Imihigo and ESSP

Recap:

- The MINEDUC-Imihigo report identifies:



Key findings:

- The EMIS/SDMS is not used as a direct data source for any of the indicators set by the Imihigo
- The REB is a key data source for the Imihigo.
- But the MINEDUC only gets REB data in report format
- Linking/accessing the REB raw data potentially a core goal for the REDP team

Source: Imihigo (n.d), MINECOFIN (n.d)

Detailed breakdown of data sources utilised for Imihigo

REB is a key dataset in the Imihigo

Outcomes	Outputs	Indicators	Total data sources	Unique data sources	Most used data source	Contribution[1]
Outcome 1: Enhancing quality learning outcomes and relevance of education at all levels	11	12	12	7	*REB*	57%
Outcome 2: Ensure sufficient numbers of competent teaching workforce across all levels of education	6	7	7	4	*REB*	29%
Outcome 3: Strengthening Science, Technology, Engineering and Mathematics (STEM) across all levels of education	6	7	7	4	*REB*	43%
Outcome 4: Increase access to education through construction of modern infrastructure at all levels	9	11	10	6	RP	33%
Outcome 5: Enhanced the quality of education through improved teacher's welfare and schools' operations	3	3	4	3	OPS	50%
Outcome 6: Enhanced use of ICT to transform teaching and learning and support the improvement of quality across all levels of education in Rwanda.	6	7	7	5	UR/REB	29%
Outcome 7: TVET and HEI programmes are responsive to both labour market needs and the social and economic development of Rwanda	1	2	2	1	HEC	100%
Outcome 8: Ensure gender parity in participation and achievement at all levels of education	1	1	1	1	*REB*	100%
Outcome 9: All Children complete School readiness Programs	1	1	1	1	*REB*	100%
Outcome 10: Increase innovative and responsive research and development in relation to community challenges	1	1	1	1	ACE	100%
Outcome 11: Strengthen leadership and management of educational institutions at all levels	2	2	2	1	NESA	100%
Outcome 12: Increase adult literacy and numeracy	1	1	1	1	MINEDUC	100%
Outcome 13: All learners achieve basic levels of literacy and numeracy in early grades and beyond	1	1	1	1	MINEDUC	100%

[1] Most used data source 'contribution' per outcome as a percentage of the total number of data sources per outcome.

Source: MINEDUC (2021)

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From theory (policy) to practice (indicators tracked)

Rwanda Education Statistical Yearbook

- Provides a statistical overview on number of schools, classrooms, learners and staff.
  - It compares yearly figures to illustrate changes within the two years.
- The ESSP is the only education-specific strategic plan/policy that is mentioned in the Yearbook.
- But the yearbook only provides information on a sub-set of ESSP indicators and focus areas (see the slides that follow).

- **Data collection covers all seven phases of education**
  - Pre-nursery
  - Nursery
  - Primary
  - General secondary
  - TVET level 1-5
  - Higher education
  - Adult literacy

- **Provides insight on eight topics**
  - School infrastructure
  - Learners
  - School staff
  - ICT, science and technology
  - Books and textbooks
  - Energy, water and sanitation
  - School nutrition
  - Special needs education

Source: MINEDUC (2021)

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Yearbook key findings 1/2

Direct references to ESSP indicators in the Yearbook

- MINEDUC is achieving school net enrolment statistics set by ESSP, barring three measurements.

School level	GER[1] actual (%)	GER ESSP (%)	NER[2] actual (%)	NER ESSP (%)
P1	51.0	45.2	*nm*	*nm*
Nursery	30.0	42.9	25.9	34.5
Primary	149.8	123.8	98.9	98.6
Lower secondary	56.9	54.8	31.3	42.6

Gross enrolment rates: Total number of students enrolled in a specific level of education regardless of age, expressed as a percentage of the official school-age population.

Net Enrolment Rate: Enrolment of the official age-group for a given cycle of education.

- MINEDUC are not achieving intake rates set by the ESSP, besides the P6 GIR. This shows that school learners are not aligned to their age.

School level	GIR[3] actual (%)	GIR ESSP (%)	NIR[4] actual (%)	NIR ESSP (%)
P1	221.1	*nm*	81.5	86.9
P6	95.7	85.4	26.9	*nm*
S1	66.4	*nm*	17.9	24.6
S3	41.7	47.7	12.0	*nm*
S6	25.3	40.7	9.6	*nm*

Gross Intake Rate: Total number of new entrants in the first last grade of a given cycle, regardless of age, expressed as a percentage of the population at the official school-age of being at that level.

Net Intake Rate: The total number of new entrants in the first /or last grade of given cycle who are of the official primary school entrance age, expressed as a percentage of the population of the same age.

Source: MINEDUC (2021). [1] Gross enrolment rate, [2] Net enrolment rate, [3] Gross intake rate, [4] Net intake rate, nm – not measured by ESSP

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Yearbook key findings 2/2

Direct references to ESSP indicators in the Yearbook

- MINEDUC repetition and dropout rates are below ESSP targets for all years of schooling.

	Repetition rate (actual)	Repetition rate (ESSP)	Dropout rate (actual)	Dropout rate (ESSP)
Primary	10.9	10.6	9.5	3.7
Lower secondary (LS)	8.9	5.6	11.0	4.3
Upper secondary (US)	5.0	2.2	7.8	2.2

Drop-out Rate: Proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year.

Repetition Rate: The proportion of pupils enrolled in a given grade and a given school year who study in the same grade the following school year.

- MINEDUC transition rates are below ESSP targets for both measurements.

	Transition rate (actual)	Transition rate (ESSP)
Primary to LS	66.0	82.1
LS to US	77.4	89.3

Transition Rate: The number of new entrants in a given level of education as a percentage of the pupils who were enrolled in the previous level of education in the previous year.

- Other key measurements:

✗ Smart classrooms[1] at all levels of education are below ESSP targets.

✓ Schools with infrastructure and materials for students with disabilities has increased and achieved ESSP targets at all levels, besides nursery level.

✓ The teaching staff trained in Special Needs and Inclusive Education (SN&IE) increased at all school levels and have met ESSP targets.

Source: MINEDUC (2021)

[1] Smart classrooms is an initiative to equip schools with computers and access to the internet.

Appendix
KPIs of strategies and policies

ESSP KPIs (1/2)

9 strategic priorities, 17 sub-outcomes and 137 indicators

Priority	Priority sub-outcomes	Indicator example	Data sources
1	1.1. All learners achieve basic levels of literacy and numeracy in early grades and beyond	% learners at or above basic proficiency in Maths in P3.	REB (LARS)
	1.2. All learners enter primary school at the correct age and successfully complete 12 years' basic education	% transition from primary to lower secondary education	EMIS report, NST1
	1.3. TVET and HEI programmes are responsive to both labour market needs and Rwanda's social and economic development	% employers satisfied with TVET graduates	TVET Tracer survey, HEC tracer study
2	2.1. All schoolteachers, TVET instructors and higher education lecturers have appropriate levels of skills and competencies to deliver the curriculum	% of teachers achieving standards on relevant approved competency framework primary	REB report
	2.2. Improved management, welfare and deployment of teachers in order to attract and retain high quality teachers in the teaching profession	Qualified teacher ratio in Pre-primary	EMIS report
3	3.1. STEM strengthened across all levels of education	% of learners enrolled in STEM related subjects: Upper Secondary	EMIS report
4	4.1. ICT strengthened across all levels of education	% of primary schools with internet connectivity	EMIS report
5	5.1. All children complete school readiness programmes	% of primary schools having pre-primary level	EMIS report
	5.2. Increased number of students enrolled in primary, secondary TVET and higher education.	GER in Pre-primary	EMIS report
	5.3. Increased adult literacy and numeracy	% of the population aged 15 years plus who are literate	EICV

LARS: Learning Achievement in Rwandan Schools; EICV: Household Living Conditions Survey

ESSP KPIs (2/2)

9 strategic priorities, 17 sub-outcomes and 137 indicators

Priority	Priority sub-outcomes	Indicator example	Data sources
6	6.1. All schools, TVET and higher education institutions have sufficient modern infrastructure, facilities and resources.	% higher education institutions meeting minimum quality assurance standards.	HEC, EMIS report, RTB Report
7	7.1. Ensure gender parity in participation and achievement at all levels of education.	GPI in NER at Pre-primary	EMIS report, National exam results (REB)
	7.2. Increased participation and achievement of children and young people with disabilities and SEN at all levels of education	% of Pre-primary schools meeting standards of accessibility for LwD	EMIS report
8	8.1. Increased research and development that responds to community challenges with innovative approaches	Number of collaborative research projects undertaken between national HEIs	HEC and UR report
9	9.1. Improved leadership in schools, TVET and higher education institutions, as well as administration, management and support services	% of TVET institutions meeting quality assurance standards	RTB, HEC, REB
	9.2. Improved public-private partnerships in education	% Pre-primary schools with partnership	RED, RTB, RP, HEC
	9.3. Improved linking of central and decentralised education planning	District education strategic plan developed in line with ESSP	MINEDUC

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Education-related KPIs in the NST1 (1/2)

NST Outcome	Indicators	Baseline (2016/17)	Targets (2023/24)	Data sources
Increased access to pre-primary education	Net Enrolment Rate in preprimary	17.5%	45%	Statistical Yearbook, NISR
Improved education quality in primary and secondary education	Pupil: Trained teacher ratio (primary)	62:1	52:1	EMIS report
	Percentage of schools with access to computers	69% (PS)	89.1% (PS)	MINEDUC reports
		84% (SS)	86.1% (SS)	
	Percentage of learners achieving minimum proficiency in numeracy in S3	78.8%	89.2%	MINEDUC reports
Increased Technical and Vocational Education and Training	Employability of TVET Graduates	70%	86.2%	RP Reports
	Percentage of students enrolled in TVET as proportion of total students	31.1%	60%	MINEDUC reports
Increased enrolment in STEM related courses in higher education and TVET	Percentage of students enrolled in STEM related courses as proportion of total students in higher education	59.3%	80%	MINEDUC reports
Reduced drop-out at primary, lower and upper secondary	Drop out ratio	5.6% (PS)	1.2% (PS)	EMIS, NISR
		6.3% (LS)	1.7% (LS)	
		3% (US)	1% (US)	

SS: Secondary school; PS: Primary school; LS: Lower secondary; US: Upper secondary

Technology-related KPIs in the NST1 (2/2)

NST Outcome	Indicators	Baseline (2016/17)	Targets (2023/24)	Data sources
Increased digital literacy	Percentage of digital literacy	8.9%	>60%	EICV Survey
Increased usage of electronic payment systems	Percentage of payments done electronically as a share of GDP	26.9%	80%	Monetary Policy and Financial Stability Statement reports

TVET indictors found in the ESSP (1/2)

S/N	OUTPUT	TARGETS			
		2020-2021	2021-2022	2022-2023	2023-2024
1	% employers satisfied with TVET graduates	83.80	86	88.2	90
2	% TVET graduates employed within 6 months of graduation (female/male	79.3	81.6	83.9	86.2
3	% Of Trainers in achieving standards on relevant approved competency framework TVET	66	76	85	86
4	% Of learners enrolled in STEM related subjects: Upper Secondary	59.9	60.7	61.5	62.30
5	% Of students enrolled in STEM related courses as proportion of total students in Higher education and TVET	63,00	68.4	74.2	80
6	% Of TVET with Internet connectivity	73	82	91	100
7	Student-computer ratio at levels of education: TVET	7:01	05:01	3:01	1:01
8	% of secondary schools equipped with at least 2 SMART classrooms	53	64.8	76.5	88.30
9	% of TVET schools equipped with at least 2 SMART classrooms	46.2	54.2	62.1	70
10	% of TVET Schools equipped with at least 2 SMART classrooms	16	40	70	100
11	% of TVET schools with digital content	55	66.7	78,3	90

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TVET indictors found in the ESSP (2/2)

S/N	OUTPUT	TARGETS			
		2020-2021	2021-2022	2022-2023	2023-2024
12	% of student's enrollment in TVET as proportion of total students (in Basic Education)	47.6	51.7	55.9	60
13	% of TVET institutions meeting standard trainer classroom ratio 25:1	47	49	51	52
14	% TVET with electricity	93.8	95.8	97.9	100
15	% TVET with improved water	83.3	88.9	94.4	100
16	% TVET with improved toilets	65	70	80	90
17	% TVET with hand-washing facilities	65.7	77.1	88.6	100
18	% of TVET schools meeting standards of accessibility for LwD	42.5	45	47.5	50
19	% of TVET institutions meeting quality assurance standards	60	68	75	76
20	% of TVET leaders trained and certified	54.9	68.6	83.3	96
21	% of TVET leaders Mentored	55.3	69.1	82.9	96.7
22	% of TVET trainees accessing private industrial attachments	74	74	75	76
23	% of income raised by public TVET compared to total budget	29	32	34	36

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Thank you

About Cenfri

Cenfri is a global think-tank and non-profit enterprise that bridges the gap between insights and impact in the financial sector. Cenfri's people are driven by a vision of a world where all people live their financial lives optimally to enhance welfare and grow the economy. Its core focus is on generating insights that can inform policymakers, market players and donors who seek to unlock development outcomes through inclusive financial services and the financial sector more broadly.

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