

## Ex-Ante Evaluation (for Japanese ODA Loan)

Africa Division 1, Africa Department, JICA

### 1. Name of the Program

Country: The Republic of Rwanda (Rwanda)

Program: Development Policy Loan for Education Sector

Loan Agreement: March 5, 2024

### 2. Background and Necessity of the Program

(1) Current State and Issues of the Education Sector and the Priority of the Program in Rwanda

Rwanda has set the goal to become an ICT-based country in its national development plan, Vision 2050, by transforming its agriculture-dependent economic system. The goals of human resources development, which is one of the pillars of Vision 2050, include ensuring access to high quality education and creating a knowledge-based society. The allocated budget on education sector by the Government of Rwanda has increased significantly in the past five years from RWF 218 billion (FY2017) to RWF 456 billion (FY2021), resulting in the increase in the allocated budget on education per student. To ensure access to high quality education at an early education stage, the government of Rwanda has set its goals of significantly increasing the pre-primary education enrollment rate to 99% and improving the quality of teachers. The government has also set out to provide a Science, Technology, Engineering and Mathematics (STEM) course at all educational levels to lay a foundation for the development of science and technology to become an ICT-based country in Vision 2050. Indicators suggest that there is little or no gender disparity in primary education in Rwanda, or girls tend to outperform boys.

The Ministry of Education (MINEDUC) and its implementing agency, the Rwanda Basic Education Board (REB), have worked to improve the quality of education and access to education, which are the cornerstone of Rwanda's human capital development. The country achieved a higher net enrollment rate in primary education as a result of providing free primary and secondary education in 2012. On the other hand, the government is faced with another challenge of unimproved internal efficiency, which is a measure of assessing the quality of education and how efficiently education has resulted in children completing school. In academic year 2019/2022, the repetition and dropout rates in primary education (6 years) were more than 20%; it took an average of about 8.2 years for pupils to complete primary school, and the transition rate from primary to secondary education was only 66% (Education Statistical Yearbook).

The reasons behind this situation include inadequate provision of pre-primary education, teachers' heavy workload and low-quality lessons caused by teachers having to work in double shift due to the lack of classrooms and teacher shortages, and children's low levels of proficiency resulting from the foregoing factors. Teacher shortages are particularly serious in the first half stage of primary education.

To tackle these challenges, the Government of Rwanda has set out various strategies in the National Strategy for Transformation (2017-2024) (NST1) and the Education Sector Strategic Plan (2019-2024) (ESSP3), and implemented a range of initiatives based on these strategies, including improving access to pre-primary education and raising children's proficiency levels in primary school, enhancing the quality of teachers, strengthening STEM education, utilizing ICT in education, building more classrooms, and hiring additional teachers. Despite the government's proactive initiatives, educational needs are expected to increase even further in the future as the school-age children's population is forecast to rise significantly.

While fiscal balance of the Government of Rwanda has continued to be negative due to reduced public investments and increased grants, it remained high at  $-8.6\%$  of GDP as of FY 2021/2022. Rwanda has chronic current account deficits due to trade deficits caused by increased imports of oil and intermediate goods and recorded a deficit of  $-9.8\%$  of GDP in FY2021/2022. This high level of current account deficits is expected to continue in FY2023 and beyond. As the Government of Rwanda has a tight budget for the whole of the country, the budget allocated to MINEDUC also remains inadequate. Improvement of access to high quality education is the key to the achievement of the national development plan. However, the Government of Rwanda has not been able to fully deal with this task due to insufficient budgets for the education sector. For this reason, the government continues to aim to reduce fiscal deficits by both increasing revenues through tax hikes and reducing expenditures through the review of expenditure items. Furthermore, the Government of Rwanda has previously sought concessional financing, including financial assistance from the World Bank and the EU among others, and recently it has also requested JICA for financial support to cover some of its funding gaps.

In response to Rwanda's pressing and medium-term financing needs, JICA will provide financial support to the country in the Development Policy Loan for the Education Sector (hereinafter called to as the "Program") on the condition that the Government of Rwanda will implement policy actions to improve the capacity of Teacher Training Colleges (TTCs), to promote digital transformation (DX) in

education, and to increase the internal efficiency of primary education. The policy actions will also include measures to address key challenges facing basic educational system in Rwanda (e.g. lower internal efficiency, the inadequate quality of teachers) as well as to promote the use of ICT in education for which JICA has provided cooperation and may be able to work with other donors and which the Government of Rwanda has proactively pursued. To improve the capacity of TTCs, the Program will improve the educational environment by expanding TTCs and making learning equipment more widely available and encourage the development of high quality teachers by formulating relevant public policies and strategies. To promote digital transformation in education, it also includes the policy actions for the improvement of relevant public policies and strategies and encourage the integration of education-related databases.

To improve the internal efficiency of primary education, the Program aims to reduce the repetition and dropout rates by developing a school feeding strategy or improving pre-primary education, and in eliminating the situation where teachers have to work in double shift by constructing additional classrooms.

## (2) Japan and JICA's Cooperation Policy and Operations in the Education Sector

Since 2008, Japan has supported the strategic plan of the Government of Rwanda for the education sector by leveraging its experience to improve the quality of education, with a focus on capacity building for STEM teachers, institutionalizing a training program for those currently working as teachers and increasing the quality of the training program. Japan has also provided support for the development of learning tools and the training of teachers to offer high quality lessons using ICT. Education and human resources development was analyzed to be a key area in the JICA Country Analysis Paper for the Republic of Rwanda (May 2015) whereas "Human Resource Development for Sustainable Growth and Job Creation (Science and Technology Education and Training)" was also identified as a priority area in the Country Development Cooperation Policy for the Republic of Rwanda (July 2017). The Program is in line with such analysis and policy. Additionally, JICA sets JICA Global Agenda to provide high quality education, and the Program will contribute to the achievement of the strategy by promoting the use of digital transformation technology, which is seen as an important tool for implementing the strategy.

## (3) Other Donors' Activities

The World Bank supports Rwanda in improving the learning environment, such as building classrooms in primary schools and expanding facilities of TTC and

hiring additional teachers. The World Bank has also offered human capital development policy loans to improve the quality of teaching and learning in the country's basic education system. UNICEF will start data development in 2025 to promote digital transformation in education, which will link students' attendance records and learning history to an integrated educational platform. WFP will support Rwanda in the development of a school feeding strategy and its funding strategy.

### **3. Program Description**

#### (1) Program Description

##### 1) Program Objective

The objective of the Program is to develop and implement related policies of the Government of the Republic of Rwanda to strengthen Teacher Training Colleges (TTC), to promote education digital transformation and to improve students' retention in primary education, by providing financial support to improve Teacher Training Colleges (TTC) and primary education programs in Rwanda, thereby contributing to promoting the socio-economic transformation and to the development of globally competitive human resource in the Republic of Rwanda.

##### 2) Program Components

To achieve various goals in ESSP3 based on the Rwandan government's NST1, a policy matrix (Attachment) in the Program will be used with a focus on the following three areas that will result in the promotion of the improvement of internal efficiency in primary education. The policy matrix includes activities of the Government of Rwanda supported by other donors and has been formulated in partnership with the World Bank, UNICEF, and WFP.

##### (a) Strengthen the functions of TTC

To promote the improvement of educational quality and an increase in the number of teachers, the Program will proceed with the formulation of a comprehensive national policy for teacher professional development, followed by the creation of a strategy and cost plan for primary teacher training. Furthermore, to expand TTC, it will undertake the construction and repair of classrooms, approve and introduce guidelines for the management of learning terminals to promote the use of ICT, and develop and introduce ICT utilization models in collaboration with the activities of the technical cooperation project: Project to Strengthen Primary School Mathematics and Science with the Use

of ICT (PRISM).

(b) Promote Educational DX

To encourage the use of ICT in education for the improvement of its quality, the Program will revise educational policies to include ICT use, and approve and monitor the strategy for educational transformation. Additionally, it will integrate systems to collectively manage data for pre-school, primary, and secondary education effectively and efficiently, and conduct training for their use and for improving teachers' ICT skills in science and mathematics classes at TTC.

(c) Enhance internal efficiency in elementary education

To address the low quality of education and students' low proficiency levels caused by the double shift system due to a shortage of classrooms and teachers, the Program will focus on increasing the number of classrooms. Moreover, to promote school meals as an incentive for children's nutritional improvement and continuous schooling, the Program will work on approving the National School Meal Strategy and Financing Strategy, and on introducing a digital monitoring system for school meals to understand the number of beneficiaries and the content of meals. In addition, to improve pre-school education, the Program will promote the consolidated management of previously ununified pre-school education and ECD services statistics under MINEDUC (and REB) and the Ministry of Gender and Family Promotion ("MIGEPROF") (and the National Child Development Agency ("NCDA")), integrate pre-school education standards, and provide training and materials for ECD caregivers.

3) Beneficiaries of the Program (target group)

People of Rwanda (13.3 million people) (World Bank, 2022)

(2) Estimated Program Cost (Loan Amount)

14,000 million yen (Loan Amount: 14,000 million yen)

(3) Schedule

The Program starts with the signing of the loan agreement. The deadlines for achieving the policy actions are August 2023, March 2024 and March 2025 respectively, and the loans will be disbursed upon the confirmation of the achievement of each policy action.

(4) Program Implementation Structure

- 1) Borrower: The Government of the Republic of Rwanda
- 2) Executing Agency: Ministry of Education (MINEDUC), Rwanda Basic Education Board (REB), National Child Development Agency (NCDA)

#### (5) Collaboration and Sharing of Roles with Other Donors

##### 1) Japan's Activity

Japan is currently implementing PRISM, which is a technical cooperation project (FY2021-2026) expected to synergize with the Program. Specifically, the Program incorporates policy actions such as enhancing teacher training programs through technical cooperation and encouraging the use of ICT in primary education curricula to propel educational digital transformation. By supporting these efforts from policy and financial perspectives, it is anticipated to contribute to the rapid manifestation of educational improvement effects on a national scale. Additionally, the dispatch of an "Education Policy Advisor" is planned as part of technical cooperation, which will support the implementation of policy actions.

##### 2) Other Donors' Activity

As indicated in section 2.(3), the World Bank, UNICEF, and WFP are providing support to Rwanda. The Program incorporates activities that are essential for realizing the outcomes of projects supported by these organizations. Therefore, through the implementation of the Program, it is expected to reinforce the achievement of these outcomes, establishing a cooperative relationship with these other donors. On the other hand, there is no overlap in the support provided by the Program and other organizations.

#### (6) Environmental and Social Consideration

##### 1) Environmental and Social Consideration

① Category: C

② Reason for Categorization: The Program is considered to have minimal adverse environmental impacts according to the "JICA Guidelines for Environmental and Social Considerations" (January 2022).

#### (7) Cross-Cutting Issues

Disability considerations, etc: The country ratified the UN Convention on the Rights of Persons with Disabilities in 2008 and is obliged to fulfill the commitments made upon ratification. The Program is relevant to Article 4 "Prohibition of Discrimination on the Basis of Disability" and Article 25 "Health."

(8) Gender Category

Not applicable ■GI (Gender Mainstreaming Needs Assessment and Analysis Program)

Reason for classification: Although the survey identified gender mainstreaming needs, no plans were made for initiatives contributing to gender mainstreaming, including specific indicators.

(9) Other Important Issues: None in particular

**4. Targeted Outcomes**

(1) Quantitative Effects

1) Quantitative Indicators (Operation and Effect Indicators)

Indicators	Baseline (Actual value in 2021)	Target (2027) [2 years after program completion]
The Number of TTC classrooms upgraded	0	16
The Number of TTCs introduced the teaching and learning model of mathematics and science with the use of ICT in SME and ECLPE	0	A total of 16 TTCs
The Number of TTCs provided with Learning Device Management Manual	0	A total of 16 TTCs
The number of tutors of mathematics and science subjects received trainings on the use of the e-learning platform	0	60
The Number of classrooms newly constructed in primary schools (for public and government-aided schools)	43,053	44,994
Number of students received school feeding program in primary schools	2,421,231	2,556,719
Average number of pupils per classrooms in P1	78	51

The net enrollment rate for the first year of primary education (girls and boys), the

repetition rate in primary education (girls and boys), and the dropout rate in primary education (girls and boys) will also be monitored as a reference.

#### (2) Qualitative Effects

Improvements in learning outcomes for children in primary education, human capital development, enhancement of the educational environment, assurance of learning continuity, and reduction of poverty

#### (3) Internal Rate of Return

Not calculated because the Program is a program loan.

### **5. External Factors and Risk Control**

None in particular

### **6. Lessons Learned from Past Projects**

From the “Fiscal Strengthening Support Loan” for the Lao People’s Democratic Republic (post-evaluation in 2017) and related initiatives, it has been learned that smooth implementation of general fiscal support necessitates integration with other assistance efforts, including the dispatch of policy advisors and technical cooperation projects. In the yen loan project “Basic Education Sector Support Project” for the Kingdom of Morocco (ex-ante evaluation year: 2013), it was learned that it was effective to collaborate with other donors implementing educational policy reforms, to continuously participate in joint reviews by stakeholders, and to monitor the policy actions formulated in the project.

The Program will also ensure that the implementation of policy actions is supported under the guidance of Education Policy Advisor expected to be dispatched soon. Moreover, as Rwanda regularly holds joint reviews by education sector stakeholders on the progress of each project, the Program will utilize this framework to report monitoring results and consider sharing information with stakeholders.

### **7. Evaluation Results**

The Program is consistent with development issues and policies of Rwanda, as well as policies and analysis of Japan and JICA. It will contribute to improving children’s learning by promoting the implementation of measures related to the development of primary education through financial support, thereby contributing to SDG Goal 4 (Education). Therefore, the need for the Program to be implemented is high.

## **8. Plan for Future Evaluation**

- (1) Indicators to be Used: As indicated in Sections 4.
- (2) Future Evaluation Schedule: After the project completion

END

Attachment: Policy Matrix

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Areas		Policy Actions (PAs) for 1st Tranche (by the end of August 2023)	Policy Actions (PAs) for 2nd Tranche (by the end of March 2024)	Policy Actions (PAs) for 3rd Tranche (by the end of March 2025)
<b>1. Strengthening Teacher Training Colleges (TTC)</b>				
1-1	TDM Policy	TDM Policy is drafted. (REB)	TDM Policy is approved by the education sector WG and submit to social cluster (REB/MINEDUC)	Pre-service teacher education strategic plan is drafted. (REB/ PRISM)
1-2	TTC Expansion	N/A	Construction and renovation plan in TTC is drafted. (boarding facilities, etc) (MINEDUC/ World Bank)	95% of the construction plan is completed. (MINEDUC/ World Bank)
1-3	Policy and infrastructure of the use of ICT (TTC)	Operation manual for REB is drafted by REB collaboration with PRISM. (REB/ PRISM)	REB and PRISM develop the teaching and learning model of mathematics and science with the use of ICT in SME and ECLPE. The agreed ICT environment (Internet Connection) with MINICT is established at 16 TTCs. (REB/ PRISM)	16 TTCs introduce the teaching and learning model of mathematics and science with the use of ICT in SME and ECLPE. (REB/ PRISM)
1-4	Learning Device Management (TTC)		Learning Device Management Manual is approved by REB (REB/ PRISM)	Learning Device Management Manual is introduced to the 16 TTCs (REB/ PRISM)

## 2. Towards Education Digital Transformation

2-1	ICT in Education Policy	The education sector policy is revised and approved by senior management at the Ministry and submit to the Prime Minister's office for the cabinet approval. (MINEDUC)	<i>The Educational Digital Transformation Strategy</i> is approved by the Ministry (MINEDUC/ UNICEF)	Monitor the implementation of <i>Educational Digital Transformation Strategy</i> and review it (MINEDUC)
2-2	Development of data management system	Updating EMIS with basic education level (pre-primary, primary, secondary schools). (MINEDUC/ UNICEF)	Updating EMIS with higher learning institutions (University/ PT). (MINEDUC/ UNICEF)	Develop and Roll out Integrated EMIS system and provide training for EMIS. (MINEDUC/ UNICEF)
2-3	Utilization of ICT in Education	Digitization of textbooks of TTCs. (REB/ PRISM)	Trainings for Tutors of mathematics and science subjects from 6 TTCs on the use of the e-learning platform (developing quiz and lessons) are implemented. (REB/PRISM)	Mathematics and science subjects tutors from 16 TTCs are trained on using the e-learning platform. (REB/PRISM)

## 3. Improving Student's Retention in Primary Education

3-1	Elimination of double shift in primary school	Construction plan for required additional classrooms in primary schools by MINEDUC is drafted. (MINEDUC)	75% of the construction of 452 classrooms budgeted for FY2023/24 is completed. (MINEDUC/ MINECOFIN)	FY2024/25 Budget for construction of 500 classrooms are allocated by MINECOFIN. (MINEDUC/ MINECOFIN)
3-2	School Feeding program to support the continued education	National School Feeding-Strategy and Financing Strategy are drafted by MINECOFIN, MINEDUC and MINALOC. (MINECOFIN, MINEDUC, WFP)	National School Feeding-Strategy and Financing Strategy are approved by MINEDUC (MINECOFIN, MINEDUC, WFP)	To start an action in order to introduce digital monitoring system for School feeding program. (i.e. publishing the gap analysis report for the improvement of monitoring system) (MINEDUC, WFP)
3-3	ECD Center (including Pre-primary schools)	All ECD centers including Home-based ECD centers are incorporated in Education Statistical Yearbook. (MINEDUC, NCDA)	Pre-primary standards by REB and ECD standards by NCDA are harmonized to complete the "ECD standards". (REB, NCDA)	To improve the quality of ECD's caregivers, training, and provision of teaching materials to be carried out by REB and NCDA. (REB, NCDA)