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Report No: PAD1157

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US$50 MILLION

TO THE

REPUBLIC OF BELARUS

FOR AN

EDUCATION MODERNIZATION PROJECT

August 21, 2015

Education Global Practice
Europe and Central Asia

CURRENCY EQUIVALENTS

(Exchange Rate Effective June 1, 2015)

Currency Unit = BYR (Belarusian Ruble)
US$1 = BYR 14,850

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BYR	Belarusian Ruble	MoE	Ministry of Education
CPS	Country Partnership Strategy	NIE	National Institute of Education
EA	Environmental Assessment	NPM	National Project Manager
ECA	Europe and Central Asia	OECD	Organisation for Economic Co-operation and Development
EMIS	Education Management Information System	OP/BP	Operational Policies/Bank Procedures
EMP	Environmental Management Plan	PAD	Project Appraisal Document
EU	European Union	PDO	Project Development Objective
FM	Financial Management	PIRLS	Progress in International Reading Literacy Study
FY	Fiscal Year	PISA	Programme for International Student Assessment
GDP	Gross Domestic Product	PIU	Project Implementation Unit
GIAC	Main Information Analytical Center	POM	Project Operations Manual
GRM	Grievance Redress Mechanism	PSF	Per-Student Financing
GSE	General Secondary Education	RIKC	Republican Institute for Knowledge Control
IBRD	International Bank for Reconstruction and Development	SABER	Systems Approach for Better Education Results
ICT	Information and Communication Technology	SORT	Systematic Operations Risk-Rating Tool
IDA	International Development Association	TA	Technical Assistance
IDF	Institutional Development Fund	TIMSS	Trends in International Mathematics and Science Study
IFC	International Finance Corporation	TTL	Task Team Leader
IFR	Interim Financial Report	USD	US Dollar
IT	Information Technology		

Regional Vice President:	Cyril Muller
Country Director:	Qimiao Fan
Senior Global Practice Director:	Claudia Costin
Practice Manager:	Mario Cristian Aedo Inostroza
Task Team Leader:	Igor Kheyfets

BELARUS
Education Modernization Project

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PAD DATA SHEET

Belarus

Belarus Education Modernization Project (P148181)

PROJECT APPRAISAL DOCUMENT

EUROPE AND CENTRAL ASIA

0000009057

Report No.: PAD1157

Basic Information			
Project ID P148181	EA Category B - Partial Assessment		Team Leader(s) Igor Kheyfets
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 16-Sep-2015	Project Implementation End Date 28-Feb-2021		
Expected Effectiveness Date 19-Jan-2016	Expected Closing Date 28-Feb-2021		
Joint IFC No			
Practice Manager/Manager	Senior Global Practice Director	Country Director	Regional Vice President
Mario Cristian Aedo Inostroza	Claudia Maria Costin	Qimiao Fan	Cyril E Muller

Borrower: Republic of Belarus					
Responsible Agency: Ministry of Education					
Contact:	Mr. Sergei V. Rudy		Title:	Deputy Minister	
Telephone No.:	375-17-200-94-81		Email:	root@minedu.unibel.by	

Project Financing Data(in USD Million)					
[X] Loan	[ ] IDA Grant	[ ] Guarantee			
[ ] Credit	[ ] Grant	[ ] Other			
Total Project Cost:	50.65		Total Bank Financing:	50.00	

Financing Gap:	0.00

Financing Source	Amount
Borrower	0.65
International Bank for Reconstruction and Development	50.00
Total	50.65

Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021	0000	0000	0000	0000
Annual	4.00	8.00	12.00	12.00	12.00	2.00	0.00	0.00	0.00	0.00
Cumulative	4.00	12.00	24.00	36.00	48.00	50.00	0.00	0.00	0.00	0.00

Institutional Data

Practice Area (Lead)

Education

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change
[ ] Fragile, Conflict & Violence
[ ] Gender
[ ] Jobs
[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Education	Secondary education	50		
Education	Primary education	25		
Education	General education sector	25		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Human development	Education for all	50
Human development	Education for the knowledge economy	50
Total		100

Proposed Development Objective(s)

The objectives of the proposed Project are to: (i) improve access to quality learning environment in selected general secondary schools; and (ii) strengthen student assessment and education management information systems of the Republic of Belarus.

Components

Component Name	**Cost (USD Millions)**
Ensuring a quality learning environment in schools receiving students from closed/reorganized schools	46.22
Modernization of system management in general secondary education	2.90
Project implementation support	1.40

Systematic Operations Risk- Rating Tool (SORT)

Risk Category	**Rating**
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	
OVERALL	Moderate

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [X]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04		X
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X
Involuntary Resettlement OP/BP 4.12		X
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

Legal Covenants

Name	Recurrent	Due Date	Frequency
Section I.A.1 (a) (iii) of Schedule 2		18-Apr-2016	

Description of Covenant

The Borrower shall vest the overall responsibility for the implementation of the Project in MoE, and to this end, through MoE, shall cause NIE to: […] (iii) no later than ninety (90) days after the Effective Date, sign the contract for installation and adaptation of the 1C accounting software for Project accounting, budgeting and reporting under terms and in a manner acceptable to the Bank.

Name	Recurrent	Due Date	Frequency
Section I.D.1 of Schedule 2	X		CONTINUOUS

Description of Covenant

The Borrower, through MoE, shall, and shall cause NIE to, carry out the Project in accordance with the Environmental Management Framework (EMF). Except as the Bank shall otherwise agree, the Borrower shall not, and shall cause NIE not to, assign, amend, abrogate or waive the EMF or any of its provisions.

Name	Recurrent	Due Date	Frequency
Section I.D.2 of Schedule 2	X		CONTINUOUS

Description of Covenant

The Borrower, through MoE, shall, and shall cause NIE to, ensure that no activities to be carried out under the Project involve Involuntary Resettlement.

Conditions

Source Of Fund	Name	Type
IBRD	Section 5.01 (a)	Effectiveness

Description of Condition

The Ministerial Order has been duly issued and is in full force and effect.

Source Of Fund	Name	Type
IBRD	Section 5.01 (b)	Effectiveness

Description of Condition

The Project Operational Manual has been adopted by the Borrower.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Igor Kheyfets	Team Leader (ADM Responsible)	Economist		GEDDR
Barbara Ziolkowska	Procurement Specialist	Procurement Analyst		GGODR
Irina Babich	Financial Management Specialist	Sr Financial Management Specialist		GGODR
Alexei Slenzak	Safeguards Specialist	Senior Environmental Specialist		GENDR
Andrea C. Guedes	Team Member	Senior Operations Officer		GEDDR
Anna Olefir	Team Member	Operations Officer		GEDDR
Elena Segura Labadia	Counsel	Senior Counsel		LEGLE
Hanna Shvanok	Team Member	E T Temporary		ECCBY
Irina Oleinik	Team Member	Operations Officer		ECCBY
Julia Liberman	Team Member	Operations Officer		GEDDR
Klavdiya Maksymenko	Safeguards Specialist	Social Development Specialist		GSURR
Luis M. Schwarz	Team Member	Senior Finance Officer		WFALA
Patrick A. Biribonwa	Team Member	Program Assistant		GEDDR

Extended Team

Name	Title	Office Phone	Location

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments

Consultants (Will be disclosed in the Monthly Operational Summary)					
Consultants Required ?	Consultants will be required				

I. STRATEGIC CONTEXT

A. Country Context

1. **During most of the first decade of the 21st century, Belarus experienced strong economic growth and made substantial gains in poverty reduction.** Strategically located between the EU and Russia, Belarus's GDP in 2001-2008 grew on average by 8.3% annually, surpassing both the Europe and Central Asia (ECA) region as a whole at 5.7% and the Commonwealth of Independent States at 7.1%. Growth was propelled by a combination of favorable external factors, including strong export demand by key trading partners, especially Russia, underpriced energy imports from Russia and favorable terms of trade for key export goods. The rapid economic development translated into remarkable progress in poverty reduction. The share of people living under the national poverty line declined from 30% in 2002 to 5% in 2010.

2. **However, since the onset of the global financial crisis in 2008, Belarus has experienced significant economic instability.** Growth slowed down substantially in 2009, plunging the country into a period of recurring macroeconomic turmoil. A foreign exchange crisis in 2011 led to substantial inflation and devaluation, with the Belarusian Ruble (BYR) losing 70 percent of its value against the US dollar during the course of the year. A mini-crisis of foreign exchange returned in December 2014 under threat of contagion from the flagging Russian economy. Overall, a weak external environment, accumulated macroeconomic imbalances, and delays in structural reforms have put Belarus on a low growth path. In 2013-2014 real GDP grew tepidly mainly through expansion in domestic demand. Still, the external environment remains weak given the growth prospects in Russia and Ukraine; and the economic outlook for the future shows significant challenges ahead if macroeconomic problems continue and structural reforms are delayed.

3. **Strong and robust economic growth and development in Belarus going forward will necessarily have to rely on the country's human capital.** Yet similar to many Eastern European countries, Belarus has a declining and rapidly aging population, which poses additional threats to the future development of the country. In order to compensate for the labor force decline and be able to compete with advanced transition economies like Poland, it is necessary for Belarus to move upmarket through a steady increase in the labor productivity which in its turn requires an adequately prepared workforce. Improving the effective functioning of the education system is thus an important priority for the country. As such, modernization of the sector requires that all students be given the opportunity to receive high quality education necessary to function effectively and productively in a modern society. With valuable geographic location and an educated labor force, Belarus can restructure its economy, diversify its exports, and increase the prosperity of its people.

B. Sectoral and Institutional Context

4. **Unlike many of its neighbors, Belarus did not undertake wide-scale and disruptive restructuring of its education system after achieving independence in 1991.** As a result of this stable continuity, the country has made considerable progress in achieving high levels of enrollment at all levels of education. Net enrollment rates of 97% (pre-primary), 94% (primary), and 96% (secondary) place Belarus on par with most high-income countries of the world, according to 2012 data. Participation rates among females are on par with males at all levels of

pre-university education, surpassing males at the tertiary level with gross enrollment rates[1] of 107% for women and 77% for men. High levels of access to university education make Belarus's youth among the most educated in the world. The country maintains strong performance along a range of social indicators, ranking 53rd out of 187 countries in 2014 on the United Nations Human Development Index.

5. **Belarusian authorities have also sought to maintain a fiscally sustainable education sector by adjusting the country's school network in line with declining demographic trends.** Under the National Development Program for General Secondary Education[2] (GSE) in 2007-2016, the Government has undertaken an ambitious effort to consolidate the school network. Since the Program's beginning, 673 GSE schools have been closed and 789 reorganized across all 6 *oblasts* (regions) of Belarus and the city of Minsk, reducing by nearly one-third the number of institutions in rural areas. Students from these schools continue to be provided with education in comparable institutions located in neighboring villages and towns. They often receive transportation on school buses procured through a combination of local and central budget funds or take advantage of other transport means organized within communities. As a result of these optimization measures, the total number of teachers has been reduced by 15% since 2007, while others have been retrained to teach other subjects or transferred to other schools.

6. **The Government is also exploring alternative approaches to school financing.** In the 2014 Budget Law, local authorities were allowed to use resources generated through savings from optimization for increasing the wages of teachers within the existing budget envelope. On January 1, 2015, a pilot project of per-student financing (PSF) was launched in 34 general secondary schools throughout the country. The Belarusian authorities have thus put their education system on a path of transitioning away from input-based financing mechanisms based on outdated norms and toward a more results-oriented approach.

7. **However, important challenges remain for the education sector in several areas:**

(a) ***School optimization and the learning environment.*** The fast-paced optimization program has not been accompanied by large-scale renovations of the schools to which students are transported when the institution in their village is closed or downsized. As a result, these "receiving" schools offer learning environments that are generally outdated and lacking the inputs associated with quality education provision. A reasonable expectation for students who are being transferred is that they would benefit from a better learning environment, which is not currently the case. The savings from the school consolidation are creating a more efficient system from the financial perspective, but more can be done to ensure a better quality education, in particular for students in more economically disadvantaged areas. School consolidation and the quality of the learning environment are inextricably linked. True efficiency in the sector

[1] *Net enrollment rates* in a specific level of education are measured as the ratio between the number of students *of official age* for that level of education and the population in the official age group corresponding to that level of education. *Gross enrollment rates* in a specific level of education are measured as the ratio between the number of students *regardless of age* and the population in the official age group corresponding to that level of education.

[2] General secondary education covers grades 1-11 and includes the primary, lower secondary, and upper secondary levels. A total of 3,293 GSE institutions operate in the country today.

can only be realized when fiscal savings are complemented with investments in quality-enhancing inputs (qualified teachers, modern facilities, appropriate information technology and laboratory equipment). But in a country where most education spending is determined at the local level, many *rayons* (districts) lack the resources to provide an adequate learning environment in their rural schools. According to 2010 data, some *rayons* spend more than 25% of their education budgets on heating alone, leaving little room for the rehabilitation of facilities or laboratory equipment. Yet research increasingly points to positive relationships between the physical conditions of the school and student learning.[3] Students attending schools with an appropriate learning environment (including modern infrastructure, equipment, technology, and learning materials) have shown improvements in learning achievement of 5-10%, leading to higher earnings throughout their lifetime and faster economic growth at the national level.[4] Without investment in better facilities and modern learning inputs, the impact of the efficiency measures from the school optimization program will not be fully realized in terms of better learning outcomes and long-term economic benefits.[5]

(b) ***Quality assessment.*** Little evidence exists today about the quality of education in Belarus. The country remains among the last in Europe to have never participated in any major international assessment of student learning (such as the Programme for International Student Assessment, PISA; Trends in International Mathematics and Science Study, TIMSS; or Progress in International Reading Literacy Study, PIRLS).[6] As a result, little comparable evidence exists about the quality of education Belarus's schools provide or how that quality has evolved over time. Domestically, Belarusian students take a high-stakes university entrance exam after grade 11, but such exams are not well-suited to accurately assess the quality of education at system level or to analyze trends in performance over time. Additionally, small-scale sample-based assessments of students in grades 4, 8, 9, and 10 are carried out within the framework of the Republican monitoring of educational quality, conducted by the National Institute of Education (NIE) annually since 2003. This system has the potential to evolve into a proper large-scale sample-based assessment that meets international standards, but it requires further development. An evaluation of this system is currently

[3] For example, Hanushek (1995) found that of 34 production function studies in developing countries that investigated the links between physical facilities and student learning, a large majority revealed a positive effect on learning achievement of school infrastructure quality. Similar results have been observed throughout Latin America (Duarte, Bos and Moreno 2010; Duarte, Gargiulo and Moreno 2011; and UNESCO-LLECE 2008), Africa (Michaelowa and Wechtler, 2006; Joseph and Wodon, 2012; Glewwe and Jacoby, 1994; and World Bank, 2004), and high-income countries like the United States (Berner, 1993; Earthman et al., 1996; O'Neill, 2000; Rydeen, 2009; and Earthman, 2002).

[4] Fisher, K. (2000), "Building Better Outcomes. The Impact of School Infrastructure on Student Outcomes and Behaviour", Schools Issues Digest, Department of Education, Training and Youth Affairs, Australian Government.

[5] A 2013 study of ICT competencies of grade 9 students showed that 39 percent of children lack the basic level of digital proficiency, with the rate increasing to 60 percent in rural areas. More than 75 percent of students do not use the computer during classes, except for informatics and foreign languages lessons. Insufficient computerization of schools and lack of digital literacy by teachers (the ability to use ICT effectively) hinders equipping Belarusian students with digital skills essential for the 21st century. Meanwhile, teachers are reporting a willingness to learn how to use technology more effectively—in Republican monitoring surveys conducted in 2014, between 18% and 44% of teachers said that they would like to improve their professional development in the use of ICT in the educational process.

[6] In February 2015, Belarusian authorities expressed their intention to join the PISA system starting with the 2018 round of assessments.

being carried out with the help of the World Bank's SABER-Student Assessment instrument; its results will be used to inform project activities.

(c) ***Education Management Information System (EMIS).*** Current approaches to decision-making in Belarus's education sector do not effectively utilize data and analytical methods to inform policy. The Ministry of Education collects statistical data from schools on an annual basis and stores it within its systems. However, a single integrated EMIS capable of linking information on school characteristics with data on inputs, outputs, and outcomes of the system and producing on-demand reports to inform policy decisions is currently lacking. The existence of the current database and established data reporting practices makes for a solid foundation for the development of an integrated EMIS in line with international best practices. The high level of IT know-how within Belarus makes it likely that a homegrown solution can be developed to suit the needs of the country's education sector. However, the fragmented nature of current education data collection practices and the lack of demand from policymakers for data analysis present obstacles to evidence-based policymaking. The need for data-informed decision-making is crucial for improving the effectiveness of resource use in education. An assessment of existing systems is currently being carried out using the SABER-EMIS instrument, and its results will be used to inform Project activities.

8. **The Government of Belarus is aware of these challenges and has sought to partner with the World Bank in finding appropriate solutions.** In early 2013, the World Bank presented the findings of its Public Expenditure Review for Belarus, which covered the education sector.[7] Among its recommendations were calls to continue to right-size the school network, implement per-student financing, and enhance quality assessment and performance management to strengthen accountability for results. The Government welcomed these findings and requested a Technical Assistance (TA) program in education, which was launched in April 2013. This initial engagement by the Bank in Belarus's education sector has brought international expertise in areas covering school financing, teacher remuneration, and student assessments to Belarusian policymakers. In 2014, the Ministry of Education was awarded a US$340,000 grant from the World Bank's Institutional Development Fund (IDF) aimed at strengthening domestic capacity for evidence-based policymaking in education.

9. **The proposed Project builds on the work done to date but remains modest in its objectives, given that it is the first ever major international investment in the Belarus education sector.** Yet it is demand-driven and responds directly to Government requests for World Bank support, forming an important foundation for long-term cooperation in the sector. Building on this inaugural engagement, the World Bank and the Government of Belarus would develop a strategic plan for cooperation in education over the coming decade through a parallel policy dialogue that goes beyond the infrastructure-focused activities of the proposed project. Possible areas for future partnership include higher education and innovation, vocational education and skills, inclusive education policies and deinstitutionalization of children, among others.

[7] World Bank (2013) "Belarus Public Expenditure Review: Enhancing Public Services in Times of Austerity", Vol. 2.

C. Higher Level Objectives to which the Project Contributes

10. **The proposed Project contributes to the World Bank's twin goals of reducing poverty and boosting shared prosperity.** Investments in education have long been linked with lower levels of transmission of intergenerational poverty. In particular, the proposed Project's school-level investments would disproportionately benefit children from rural areas and from localities with lower levels of socioeconomic development. The focus on providing equal educational opportunities for vulnerable populations and, thus, promoting shared prosperity is at the core of the Project design.[8]

11. **The Project is also aligned with the World Bank Group's Country Partnership Strategy (CPS) for the Republic of Belarus FY2014-FY2017 (Report No. 77458-BY, June 13, 2013) and the Bank's Education 2020 strategy**. The third pillar of the CPS calls for "Improved human development outcomes through better delivery of education, health, and social services". The development goal of "Greater efficiency and quality of services in health and education" is directly supported by the project design. Meanwhile, the Project also contributes to two of the three pillars of the Bank's Education 2020 strategy. These include "investing smartly" in education and "investing for all". Component 2 of the proposed Project focuses on system-level improvements, which would enable more rational education system management and more effective use of resources, while Component 1 aims to improve access to a quality learning environment for the vulnerable populations—namely, children whose schools have been subject to closure or reorganization.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

12. **The objectives of the proposed Project are to:** (i) improve access to quality learning environment in selected general secondary schools; and (ii) strengthen student assessment and education management information systems of the Republic of Belarus.

B. Project Beneficiaries

13. **The proposed Project's activities would affect beneficiaries at two distinct levels.** Component 1 envisions the support for targeted schools and localities, particularly focusing on children who have been affected by school optimization efforts. The direct beneficiaries of this component would include approximately 25,000 boys and girls enrolled in "receiving" schools who will enjoy access to an improved learning environment financed by this Project. Indirect beneficiaries would include school teachers, administrators, and other staff employed in the schools benefiting from an enhanced learning environment, as well as the students' parents. Component 2, on the other hand, is designed to support the overall system of general secondary

[8] The proposed Project would also assist the Government in meeting its target under the United Nations Development Assistance Framework for 2016-2020 of increasing the proportion of children with disabilities enrolled in mainstream education institutions from 70% to 80%. It will ensure that an accessible learning environment is provided in selected general secondary education institutions targeted by the Project.

education in Belarus. Through project interventions, it is expected that the system would be managed more effectively with a focus on results, thus benefiting all generations of future students in a system that currently enrolls more than 931,000 children.

C. PDO Level Results Indicators

14. **The proposed Project outcome indicators are:**

(a) Number of students enrolled in general secondary education institutions meeting minimum conditions for a quality learning environment.[9]

(b) Number of general secondary education institutions rehabilitated under the project meeting minimum conditions of a quality learning environment.

(c) Proportion of beneficiaries reporting satisfaction with quality of the learning environment in general secondary schools targeted by the project.

(d) Belarus's participation in PISA 2018 completed.

(e) Annual education statistics reports produced using data generated by the integrated EMIS.

III. PROJECT DESCRIPTION

A. Project Components

15. **The proposed Project is organized into three components:** (i) Ensuring a quality learning environment in schools receiving students from closed/reorganized schools; (ii) Modernization of system management in general secondary education; and (iii) Project implementation support.

Component 1: Ensuring a quality learning environment in schools receiving students from closed/reorganized schools (US$46.225 million equivalent).

16. The objective of this component is to provide a learning environment that is conducive to quality education in selected schools.

Subcomponent 1.1. Strengthening infrastructure of institutions which receive (or plan to receive) students from schools closed or reorganized under the optimization program.

17. The objective of this subcomponent is to complement school consolidation efforts by providing an adequate learning environment in receiving schools. To this end, this subcomponent

[9] A checklist defining the minimum acceptable learning environment standards is being developed and will be reflected in the Project Operations Manual (POM).

would finance reconstruction and capital repairs of selected general secondary education facilities[10] to ensure that they meet the minimum conditions for a quality learning environment.

Subcomponent 1.2: Improving access to and use of laboratory equipment and information technologies in the educational process.

18. The objective of this subcomponent is to equip receiving schools rehabilitated under subcomponent 1.1 with the necessary scientific materials and information technology to provide an adequate learning environment. The Ministry of Education, in consultation with local authorities, would decide which schools will receive which type of laboratory equipment (physics, chemistry, biology, information technology) in line with local needs. Additionally, teachers would receive training focused on effective use of laboratory and IT equipment in the educational process, ensuring that Belarusian students have the modern digital skills essential in the 21st century. To this end, this subcomponent would support the provision of subject laboratories (physics, chemistry, biology, and information technology) to the selected schools. Appropriate training for effective use of IT equipment in the educational process would be provided to teachers who will use laboratory equipment through the existing system of teacher training in the Republic of Belarus, using the Borrower's counterpart funds.

Component 2: Modernization of system management in general secondary education (US$2.9 million equivalent).

19. The objective of this component is to facilitate the use of international best practices in assessing the quality of education and using data analysis for education system management.

Subcomponent 2.1. Improvements to the national student assessment system.

20. The objective of this subcomponent is to support revisions to the current system of national sample-based assessments for monitoring of educational quality in grades 4, 8, 9, and 10 to bring it in line with international best practices. Under the proposed Project, the Republican monitoring system currently implemented by the National Institute of Education would be strengthened in several areas, including the application of appropriate sampling techniques, internationally accepted psychometric practices of test design, and modern approaches to test implementation and scoring, among others. To this end, this subcomponent would support the following activities: (i) consultations with international experts regarding the improvement of the national assessment system; and (ii) professional training of Belarusian specialists in the field of student learning assessments. An assessment of current practices in this area is underway using the World Bank's SABER-Student Assessment instrument; its results will be used to inform project activities.

Subcomponent 2.2. Participation in international student assessments.

[10] The beneficiary schools would be selected on the basis of the following selection criteria: (a) Total number of students studying in the receiving school; (b) Number of students from closed/reorganized schools in the receiving school; (c) Prospective viability of the institution in the rayon in which the school is located; (d) Level of socioeconomic well-being of the rayon; and (e) Volume of funds required for investment in the institution in order to meet project objectives.

21. The objective of this subcomponent is to facilitate Belarus's first participation in an internationally comparable system of student learning assessment. This would be achieved by developing the capacity of the national institutions to prepare for, implement, and analyze the results of PISA 2018. To this end, this subcomponent would support the following activities: (i) financing the international costs of participation in PISA 2018; (ii) supporting the relevant preparation activities conducted by national authorizes, including the development, translation, and editing of test materials; education, training and preparatory workshops; and piloting of assessments; (iii) supporting test implementation activities, including printing, distribution, and supervision of assessments; data processing and analysis; and dissemination of results; and (iv) financing institutional development activities, such as strengthening the capacity of the national implementing agency responsible for carrying out international student assessments.

Subcomponent 2.3. Improvement of the existing Education Management Information System (EMIS) to facilitate the use of data analysis for supporting sector management decisions.

22. The objective of this subcomponent is to modernize the systems and practices of data collection and analysis in the education sector through the development of an integrated EMIS. To this end, this subcomponent would support the following activities: (i) development of a system for the collection and processing of primary data from educational institutions; (ii) development of a system for the generation of aggregate data and reports on the basis of primary data; (iii) strengthening of analytical capacity using data management software and training; and (iv) development and attestation/certification of the data protection system. An assessment of current practices in this area is underway using the World Bank's SABER-EMIS instrument; its results will be used to inform project activities.

Component 3: Project implementation support (US$1.4 million equivalent, including US$650,000 in counterpart financing).

23. The objective of this component is to ensure adequate support for the implementation of the proposed Project activities. To this end, the proposed Project would finance consultant services, training directly related to project implementation, financial audit, and selected operating expenses. The majority of operating costs of a Project Implementation Unit (PIU) housed within the National Institute of Education (NIE) will be financed using Republican budget funds. These may include, among others, salaries of staff members engaged in Project implementation, social insurance contributions, purchase of consumables, business trip expenses, communication expenses, utility costs, other current expenses, purchases of software and computer hardware, and so forth.

B. Project Financing

24. **The proposed Project is to be implemented over a period of five years, between 2016 and 2021.** It would be financed by an IBRD loan in the amount of US$50 million. Counterpart financing in the amount of US$650,000 is expected to be allocated for project implementation support.

Project Cost and Financing

Project Components	Project cost	IBRD or IDA Financing	% Financing
1. Ensuring a quality learning environment in schools receiving students from closed/reorganized schools	46,225,000	46,225,000	100.0
2. Modernization of system management in general secondary education	2,900,000	2,900,000	100.0
3. Project implementation support	1,400,000	750,000	53.6
Total Costs	**50,525,000**	**49,875,000**	**98.7**
Total Project Costs	50,525,000	49,875,000	98.7
Front-End Fees	125,000	125,000	100.0
Total Financing Required	**50,650,000**	**50,000,000**	**98.7**

C. Lessons Learned and Reflected in the Project Design

25. **The proposed Project design incorporates key lessons learned from existing research, as well as from previous Bank-supported education operations.** These include:

(a) ***Impact of improvements in the learning environment on student achievement.*** Glewwe et al[11] conducted a literature review followed by a meta-analysis study of the relationship between school resources and student test scores. Better resources such as textbooks, basic furniture, blackboards, school libraries and better infrastructure were found to have a positive impact on test scores. The authors concluded that "a fully functional school – one with better-quality roofs, walls or floors, with desks, tables and chairs and with a school library – appears to be conducive to student learning." Branham[12] studied over 200 schools in the Houston Independent School District in the US and found that the quality of school infrastructure has a significant effect on student attendance and drop-out rates. Cuyvers et al[13] analyzed the impact of school infrastructure on the well-being of students in Flemish secondary schools in Belgium and concluded that the quality of school infrastructure has a strong impact on a student's perception of his or her well-being. Research has also shown that increases in learning and cognitive skill development have a strong causal relationship with individual lifetime earnings and national economic growth. Hanushek and Woessmann (2008)[14] find that a one standard deviation increase in learning outcomes is associated

[11] Glewwe, P., Hanushek, E., Humpage, S. & Ravina, R. (2011) School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010, *NBER Working Paper 17554*.

[12] Branham, D. (2004) "The Wise Man Builds His House Upon the Rock: Effects of Inadequate School Building Infrastructure and Attendance", *Social Science Quarterly*, 85(5), pp. 1112-1128.

[13] Cuyvers, K., G. De Weerd, S. Dupont, S. Mols, and C. Nuytten (2011) "Well-being at school: does infrastructure matter", *CELE Exchange 2011/10*, OECD.

[14] Hanushek, E.A. & L. Woessmann (2008) "The Role of Cognitive Skills in Economic Development", *Journal of Economic Literature*, 46(3), pp. 607-668.

with an increase in annual earnings of around 12 percent. Countries' economic growth is also dependent on individuals' cognitive skills—with a change of one standard deviation in student performance accounting for 1.2-2.0 percentage point difference in annual GDP growth rates, all else being equal.[15]

(b) ***Student assessments and use of data in system management.*** In order to ensure that their education systems are imparting skills that are conducive to growth, countries must develop advanced systems of measuring student learning. By investing in improved student assessment and education information systems, countries as diverse as Poland and Brazil were able to reform their approaches to delivering education services to better meet the needs of a globalized economy. Without precise assessment and robust analysis, policymakers have little chance of aligning their teacher policies and curricula with the needs of a modern knowledge economy. Thus, student assessments along with education information systems are crucial prerequisites for effective sector management.

26. **The World Bank has a long history of supporting strong learning environments, use of information and communications technologies (ICT) in the classroom, as well as system enhancements in education management.** Infrastructure projects that build and rehabilitate schools date back to at least the 1960s. ICT use in education, student assessment, and Education Management Information Systems (EMIS) are all policy areas for which a deep knowledge base has been developed within the framework of the World Bank's Systems Approach for Better Education Results (SABER) initiative. The design of the proposed Project are well-informed by the lessons learned under SABER and related activities.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

27. **The project will be implemented over a five-year period by the Ministry of Education of the Republic of Belarus.** The Ministry would have the overall responsibility for project coordination and monitoring of implementation progress. The Ministry would delegate the responsibility for managing the day-to-day preparation and implementation of the proposed Project, including overall fiduciary responsibilities, to the National Institute of Education (NIE). A Project Implementation Unit (PIU) will be created within NIE and will be financed by the Borrower[16] to maintain throughout Project implementation qualified staff in sufficient numbers, as well as adequate funds, facilities, services and other resources for Project implementation (including, procurement, financial management, environmental and social aspects and monitoring and evaluation), all acceptable to the Bank. The PIU may also be supported with outside specialists on an as-needed basis.

[15] Hanushek, E.A. & L. Woessmann (2012) "Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation", *Journal of Economic Growth*, 17(4), pp. 267-321.
[16] Amount of budget financing for the maintenance of the PIU may be revised annually.

28. **Technical expertise and responsibility for project implementation will be delegated to the NIE and two other organizations subordinate to the Ministry of Education.** The Republican Institute for Knowledge Control (RIKC) will oversee the technical implementation of subcomponent 2.2, while the Main Information Analytical Center (GIAC) will oversee the technical implementation of subcomponent 2.3. NIE will liaise with these organizations to ensure a smooth and unified approach to procurement and financial management under the Project. The Ministry of Education would retain the responsibility for strategic guidance and overall project oversight.

B. Results Monitoring and Evaluation

29. **The Project Development Objective level and intermediate result indicators would be monitored using the following data collection instruments:** (i) regular surveys and data collection processes; (ii) administrative data; and (iii) monitoring reports prepared by the PIU.

30. **The PIU will carry out the day-to-day coordination of monitoring and evaluation activities.** It will bring together the representatives of various subdivisions of the Ministry to monitor the project's objectives and results and will communicate with the World Bank according to the frequency of reports described in Annex 1. Organizations subordinate to the Ministry of Education—including the NIE, RIKC, and GIAC—will be responsible for provision of timely and accurate information required for monitoring the project's objectives and results achieved under their respective subcomponents, as shown in Annex 3.

31. **The proposed Project envisions beneficiary and stakeholder participation in project monitoring activities.** Stakeholder feedback would be gathered through the existing Republican monitoring exercise conducted each year by the National Institute of Education at the request of the Ministry of Education. This exercise currently serves as one of the key monitoring and evaluation mechanisms used by policymakers to assess quality of education services in Belarus. The phased-in nature of school rehabilitation activities proposed under Component 1 allows for annual comparisons in beneficiary satisfaction with the quality of the learning environment in "treatment" and "control" schools.

C. Sustainability

32. **The sustainability of the proposed Project would be determined by two factors.** First, the Government's ownership of this Project and other activities implemented under the current Country Partnership Strategy; and, second, the fiscal sustainability and cost-effectiveness of project activities. The former is derived from the project's support for the Government's demonstrated commitment to the implementation of school network optimization under the National Development Program for General Secondary Education (2007-2016). Meanwhile, the systems strengthening activities—particularly the support for participation in PISA 2018—reflect new Government priorities that are aimed at the modernization of the country's education sector in line with accepted global practices. The latter factor—on fiscal sustainability—will derive from increased cost-effectiveness of the rehabilitated school facilities, which will reduce over time the amount of resources that must be allocated from central and local budgets to maintain the existing facilities (which are currently characterized by inefficient heating systems, under-enrolled classes, and so forth).

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

33. **The overall implementation risk is moderate.** However, because this is the first investment loan in the Belarus education sector, certain risks are judged to be substantial. In particular, the *Institutional Capacity Risk* and the *Fiduciary Risk* are both substantial because the main implementing agencies have no prior experience implementing World Bank-financed projects. The capacity of the implementing agencies will need to be strengthened in order to successfully implement project activities. This risk will be mitigated through capacity building activities targeted at the respective implementing agencies. The *Environmental and Social Risk* is deemed moderate. The environmental risks associated with the proposed civil works are typical for rehabilitation of medium-sized buildings located within settlements, and are modest in scale. Managing the expected negative impacts and keeping them to the acceptable minimum would require adhering to good construction practices and applying specific mitigation measures provided in the Environmental Management Plans (EMPs) that will be developed for each project beneficiary school.

34. **The key risks are summarized in the Systematic Operations Risk-Rating Tool (SORT) below**:

Systematic Operations Risk- Rating Tool (SORT)	
Risk Category	**Rating**
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	
OVERALL	Moderate

VI. APPRAISAL SUMMARY

A. Economic and Financial(if applicable)Analysis

35. **The proposed Project addresses different aspects of general secondary education, which is strongly associated with the development of key cognitive and non-cognitive skills that drive economic growth.** An economic and financial analysis has been conducted, whose

results justify the soundness of the proposed investments. Specifically, a cost-benefit analysis is used to quantify the benefits from the improvements in the learning environment in selected schools (Component 1) and compare them against the project's direct and indirect costs. Separately, a cost-effectiveness analysis of systems strengthening measures (Component 2) demonstrates that the proposed activities form a cost-effective strategy for achieving the development objective of improved information use in education system management. The analysis conducted indicates that the proposed Project would yield a benefit-to-cost ratio of 1.9, where quantifiable benefits are derived from higher lifetime earnings enjoyed by students graduating from general secondary schools with an improved learning environment. Sensitivity analyses of the results were performed on key parameters to confirm that the Project yields positive net benefits and proves to be a good investment for the Republic of Belarus.

B. Technical

36. **The development objective would be achieved through a sound project design, which balances investments in infrastructure with education systems strengthening.** The proposed Project would help the Government to consolidate the school network optimization efforts by focusing on improving quality of receiving schools to ensure access to equal educational opportunities. The project design is informed by a long track record of similar interventions financed by the World Bank in other countries of the world, whose lessons are applied to design the mix of activities appropriate for Belarus. The proposed activities are designed keeping in mind the relevant international standards and the borrower's needs and capacities.

C. Financial Management

37. **The project risk assessment for FM is Substantial due to the following factors:** (1) limited experience of the implementing agency (NIE) in implementing World Bank-financed projects; (2) relative complexity of the project with various types of activities to be financed from Loan funds, including a MIS component; (3) a number of other organizations participating in the technical implementation of the project, and thus a need for effective division of responsibilities and internal controls in the project (even though fiduciary functions will be with NIE only). A Project Operations Manual (POM) will need to be developed and will be important for this operation.

38. **The FM assessment concluded that the minimum World Bank requirements will be met after the agreed actions, mentioned below, are completed.** Given that NIE is relatively new to implementing World Bank-financed projects, additional capacity building effort and implementation support to NIE will be provided during preparation and beginning of implementation. Involvement of the part-time FM consultant currently supporting NIE in implementation of the grant will be expanded to be full-time and the FM consultant will be financed from the loan. A full-time FM consultant will be put in place within 3 months after project effectiveness and will continue assisting the existing financial staff of NIE. Additionally, NIE will have one or two of its accountants (members of the PIU) dedicated to financial management of the project. NIE will be in charge of the FM and disbursement functions for the entire project, it will keep detailed project records, prepare periodic reports, and be in charge disbursements and of financial audits. The project will submit quarterly Interim Financial Reports (IFRs) to the World Bank, and carry out annual audits of the project financial statements. The

existing accounting system of NIE (1-C) will be used to keep project records; however, the system will be modified to allow fully automated project accounting records. The contract for adaption of the 1-C accounting software will be signed by no later than ninety (90) days after the project effectiveness date, (dated covenant). The FM and disbursement procedures, including internal controls to be in place for project implementation will be described in Project POM. The draft of such POM is to be prepared prior to negotiations, and approval of the final POM is a condition of effectiveness.

D. Procurement

39. **Procurement activities under the proposed project will be carried out by the National Institute of Education (NIE)**, the Project Implementation Unit (PIU), in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," dated January 2011 and revised on July 1, 2014 and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," dated January 2011 and revised on July 1, 2014, and the provisions stipulated in the Loan Agreement. A procurement assessment carried out between December 2014 and February 2015 concluded that the PIU has insufficient experience to carry out the procurement activities related to the project in accordance with the Bank's Guidelines, since it has only implemented a small value Trust Fund, which is still under implementation. Taking into account the PIU unfamiliarity with the Bank's procurement rules and procedures for civil works contracts including procurement of goods, the assessment found the overall procurement risk for the project to be Substantial.

40. **There is a potential risk of delays in the implementation of the procurements, especially for the first set of first civil works contracts and the procurement of laboratory equipment, including the IT component.** In addition, in civil works contracts there is a risk of cost overruns due to variation orders and claims. There may be also limited competition if contracts for several schools are launched at the same time, their size and value are not significant and they are scattered geographically. To mitigate the procurement risks the PIU will implement measures agreed with the Bank which will include inter alia: (i) preparing bidding documents for the first year of project implementation for Component 1 in advance; (ii) organizing business outreach by the PIU for the private sector on future business opportunities under the project before launching first bidding procedures to enhance competition; (iii) hiring a full time Procurement Specialist experienced in World Bank Procurement rules and procedures; (iv) participating in various procurement training and workshops provided by the Bank and/or external training providers; and (v) preparing procurement progress reports during project implementation.

41. **The Bank will closely supervise the project, including carrying out regular reviews of the procurement arrangements, and provide timely technical assistance to strengthen the PIU's procurement capacity** for conformity with the Loan Agreement, the proposed implementation program, and the disbursement schedule. The Bank's prior review thresholds will be provided in the agreed Procurement Plan. The remaining procurement procedures will be subject, on a random basis, to the Bank's ex-post review. One in 10 contracts under the project will be subject to ex-post review. More detailed findings of the assessment, the proposed procurement arrangements, and measures to address the identified risks are presented in Annex 3.

The Procurement Plan covering the first 18 months of the project implementation is presented in Annex 3.

E. Social (including Safeguards)

42. ***Social safeguards.*** All school rehabilitation works under the project are expected to take place within the existing footprint of educational facilities and no land acquisition is expected. The Republic of Belarus enjoys a well-enforced regulatory framework that prohibits squatters and vendors within the territory of the school compound, thus permanent or temporary physical or economic displacement as the result of the project is not expected and OP/BP 4.12 Involuntary Resettlement is not triggered by the project.

43. ***Social impact.*** In order to understand to what extent local stakeholders (local education authorities, school principals, teachers, pupils, parents and the community) are informed about the proposed reforms, a social impact analysis is underway. The study evaluates what type of information is available on the education quality to stakeholders and identifies steps necessary to strengthen the accountability and "information flow" links. The assessment also identifies the most acceptable ways of mitigating the social impact of the school network optimization program on the most vulnerable families (e.g., single-headed households, families with many children, vulnerable families, families with children with special needs, etc.) as well as communities, both those losing the school and those where the receiving schools are located. Gender effects and ways to maximize positive effects while minimizing the negative ones are also being assessed. The result of the study, which are expected by May 2015, will be used to inform the design of information and capacity building activities under the proposed Project. Preliminary findings suggest that communities impacted by school optimization efforts react positively to having their children transferred to a nearby receiving school if that school is seen to provide a better quality learning environment for the children than the school that is subject to optimization.

44. ***Gender.*** The social analysis under way has a particular focus on gender issues. Gender-disaggregated data and information to examine views of and impact on both female and male stakeholders, and to promote equal opportunities for men and women in the sector, is being collected.

45. ***Citizens' engagement.*** The existing multiple mechanisms of social accountability and channels of communication with the educational institutions that exist for the local community and parents will be promoted and strengthened by the proposed Project. Most schools have their own websites, and general information on the development and performance of the system of education is available at the educational portal www.adu.by and at the website of the Ministry of Education.

46. ***Beneficiary feedback.*** The Republican Monitoring of Education is a functioning system of monitoring of various aspects of education performance, including the quality of educational services. This mechanism, carried out by the National Institute of Education at the request of the Ministry of Education will be assessed and enhanced by the project to allow for annual monitoring of stakeholders' satisfaction with the beneficiary schools' learning environment. This mechanism will be used by the project for collecting beneficiary feedback in course of the project implementation.

47. ***Grievance redress.*** Communities and individuals who believe that they are adversely affected by specific activities financed by the proposed project may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

F. Environment (including Safeguards)

48. **The proposed project would support the rehabilitation of school facilities.** These works are expected to have some temporary negative impacts typical for reconstruction/rehabilitation of small to medium size constructions. The potential negative impacts are perceived to be relatively minor and can be readily mitigated with standard procedures. Based on the safeguards policy and given the expected nature of the works, OP/BP 4.01 Environmental Assessment is triggered and the proposed Project is classified as Category B. An Environmental Management Framework (EMF) was disclosed (in Russian) on the website of the Ministry of Education on January 9, 2015, and public consultations have been carried out in 89 districts and towns throughout the country. The final version of the EMF in Russian was disclosed on the website of the Ministry of Education on March 4, 2015, and submitted (in English) to the Bank's InfoShop on March 27, 2015. Once the sites for school rehabilitation are chosen, site-specific Environmental Management Plans (EMPs) will be prepared to mitigate the negative environmental impacts for the affected sites. The simplified EMP Checklist for Small Construction and Rehabilitation Activities may be used for most sites. Environmental risks of these activities are expected to be modest and limited to the construction sites and to the period of construction works.

49. **All project works are anticipated to occur within the existing school site and it is unlikely that any of the school buildings selected for the rehabilitation will have a historic value and/or have present physical cultural resources.** As such, OP/BP 4.11 Physical Cultural Resources is not triggered. Nevertheless, the EMF includes procedures for addressing physical cultural resources encountered during implementation ('chance finds').

50. **The PIU will appoint one staff member to be in charge of safeguards compliance.** Since the NIE has no prior experience with World Bank safeguards policies, its staff may receive guidance and on-the-job training from the Bank's safeguards specialists in the early stages of project implementation.

Annex 1: Results Framework and Monitoring

Country: Belarus

Project Name: Belarus Education Modernization Project (P148181)

Results Framework

Project Development Objectives

PDO Statement

The objectives of the proposed Project are to: (i) improve access to quality learning environment in selected general secondary schools; and (ii) strengthen student assessment and education management information systems of the Republic of Belarus.

These results are at	Project Level

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values				
		YR1	YR2	YR3	YR4	End Target
Students benefitting from improved learning environment in general secondary schools targeted by the project. (Number)	0.00	4500.00	9500.00	14500.00	19500.00	25000.00
Female students benefiting from improved learning environment. (Number - Sub-Type: Breakdown)	0.00	2250.00	4750.00	7250.00	9750.00	12500.00
Students from closed/reorganized schools benefitting from improved learning environment in general secondary schools targeted by the project. (Number - Sub-Type: Breakdown)	0.00	900.00	1900.00	2900.00	3900.00	5000.00
Female students from closed/reorganized schools benefitting from improved learning environment. (Number - Sub-Type: Breakdown)	0.00	450.00	950.00	1450.00	1950.00	2500.00

Number of schools rehabilitated under the project to meet minimum conditions for a quality learning environment. (Number)	0.00	22.00	46.00	70.00	94.00	120.00
Beneficiaries reporting improved satisfaction with quality of learning environment, relative to appropriate control group. (Text)	0	Satisfaction is statistically higher in the treatment schools than in control schools.	Satisfaction is statistically higher in the treatment schools than in control schools.	Satisfaction is statistically higher in the treatment schools than in control schools.	Satisfaction is statistically higher in the treatment schools than in control schools.	Satisfaction is statistically higher in the treatment schools than in control schools.
Belarus's participation in PISA 2018 completed. (Text)	No participation in international assessments	Belarus enrolled in PISA 2018	Belarus enrolled in PISA 2018	PISA 2018 assessments are implemented in Belarus	PISA 2018 data is prepared for submission to the OECD.	PISA 2018 data is submitted to and accepted by the OECD
Annual education statistics reports produced using data generated by the integrated EMIS. (Text)	No integrated EMIS in place	Assessment of the existing information systems completed	Integrated EMIS is under development	Integrated EMIS is operational	Annual report produced using 60% of data generated by integrated EMIS	Second annual report produced using 80% of data generated by the integrated EMIS

Intermediate Results Indicators

		Cumulative Target Values

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
Number of schools supplied with laboratory equipment under the project. (Number)	0.00	22.00	46.00	70.00	94.00	120.00
Number of physics laboratories equipped under the project. (Number - Sub-Type: Breakdown)	0.00	13.00	27.00	41.00	55.00	70.00
Number of IT laboratories equipped under the project. (Number - Sub-Type: Breakdown)	0.00	12.00	25.00	38.00	51.00	65.00
Number of chemistry laboratories equipped under the project. (Number - Sub-Type: Breakdown)	0.00	17.00	36.00	55.00	74.00	93.00
Number of biology laboratories equipped under the project. (Number - Sub-Type: Breakdown)	0.00	15.00	31.00	47.00	63.00	82.00
Ratio of computers per 100 students in project beneficiary schools. (Number)	3.78	3.78	3.92	4.06	4.20	4.32
Percent of subject teachers in targeted schools successfully completing the IT training program. (Percentage)	0.00	18.00	38.00	58.00	78.00	100.00
Improved sample-based national assessment (Republican monitoring) is carried out. (Text)	Existing sample-based national assessment system in place	Analysis of the current national assessment system is completed	Plan for revision of the national assessment system is developed	National assessment system is revised	Revised national assessments are carried out	Revised national assessments are carried out
PISA 2018 national report is prepared. (Text)	No national report	Belarus enrolled in PISA 2018	Belarus enrolled in PISA 2018	PISA 2018 assessments implemented	PISA 2018 data analyzed	PISA 2018 national report prepared and disseminated

Percent of schools connected to the integrated EMIS. (Percentage)	0.00	0.00	0.00	25.00	50.00	100.00
Number of administrative staff trained in the use of the integrated EMIS. (Number)	0.00	0.00	0.00	100.00	800.00	1500.00
Number of female administrative staff trained in the use of the integrated EMIS. (Number - Sub-Type: Breakdown)	0.00	0.00	0.00	50.00	400.00	750.00
Grievances registered related to delivery of project benefits addressed (%) (Percentage) - (Core)	0.00	100.00	100.00	100.00	100.00	100.00
Grievances related to delivery of project benefits that are addressed-(number) (Number - Sub-Type: Supplemental) - (Core)	0.00	0.00	3.00	4.00	5.00	9.00

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Students benefitting from improved learning environment in general secondary schools targeted by the project.	Total number of students enrolled in project schools which meet the minimum conditions of a quality learning environment per the quality learning environment checklist.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Students from closed/reorganized schools benefitting from improved learning environment in general secondary schools targeted by the project.	Total number of students who have transferred from closed/reorganized schools to the project schools which meet the minimum conditions of a quality learning environment per the quality learning environment checklist.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Female students from closed/reorganized schools benefitting from improved learning environment.	The number of female students who have transferred from closed/reorganized schools to the project schools which meet the minimum conditions of a quality learning environment per the quality learning environment checklist.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Female students benefiting from improved learning environment.	The number of female students enrolled in project schools which meet the minimum conditions of a quality learning environment per the quality learning environment checklist.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Number of schools rehabilitated under the project to meet minimum conditions for a quality learning environment.	The number of project schools which are reconstructed and/or which have received capital repairs under the project.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE

Beneficiaries reporting improved satisfaction with quality of learning environment, relative to appropriate control group.	Annual satisfaction surveys are used to assess the impact of project interventions on the beneficiaries' satisfaction with their respective schools' learning environment. Satisfaction is determined by comparing satisfaction levels with the quality of learning environment in treatment schools with control schools.	Annual	Annual Republican monitoring reports prepared by NIE at the request of the MoE	NIE
Belarus's participation in PISA 2018 completed.	All of the necessary PISA 2018 data is submitted to and accepted by the OECD.	Annual	PISA Governing Board's approval of Belarus participation	RIKC
Annual education statistics reports produced using data generated by the integrated EMIS.	Reports providing education statistics are produced on an annual basis using the integrated EMIS that is developed under the project.	Annual	(i) integrated EMIS database; (ii) annual report produced using the integrated EMIS.	GIAC

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Number of schools supplied with laboratory equipment under the project.	The number of project schools that have received project-financed laboratory equipment to be used in physics, chemistry, biology, or IT laboratories.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Number of physics laboratories equipped under the project.	The number of laboratories in project schools that have received project-financed physics laboratory equipment.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Number of IT laboratories equipped under the project.	The number of laboratories in project schools that have received project-financed IT laboratory equipment.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Number of chemistry laboratories equipped under the project.	The number of laboratories in project schools that have received project-financed chemistry laboratory equipment.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE

Number of biology laboratories equipped under the project.	The number of laboratories in project schools that have received project-financed biology laboratory equipment.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Ratio of computers per 100 students in project beneficiary schools.	The number of computers for student use in project schools per 100 students enrolled in project schools.	Annual	(i) integrated EMIS database; (ii) MoE and NIE documents	NIE
Percent of subject teachers in targeted schools successfully completing the IT training program.	The number of teachers who completed the IT training program (as confirmed by the body certifying completion of such program) expressed as a percentage of the number of teachers who were qualified to participate in the IT training program.	Annual	MoE lists of school teachers who attended training activities	MoE
Improved sample-based national assessment (Republican monitoring) is carried out.	The national sample-based assessment (Republican monitoring) is improved through the capacity building of the National Institute of Education and is implemented on a nationally representative sample of students. The assessment results are submitted to and accepted by the Ministry of Education.	Annual	(i) MoE and NIE documents; (ii) report on the results of the revised Republican monitoring exercise	NIE
PISA 2018 national report is prepared.	National report with PISA 2018 is prepared and disseminated	Annual	(i) MoE and RIKC documents governing the administration of PISA 2018 assessments in Belarus; (ii) National report analyzing Belarus's PISA 2018 results	RIKC
Percent of schools connected to the integrated EMIS.	The number of project schools connected to the project-supported integrated EMIS expressed as a percentage of all general secondary education institutions in Belarus.	Annual	(i) integrated EMIS database; (ii) MoE and GIAC documents	GIAC

Number of administrative staff trained in the use of the integrated EMIS.	Total number of administrative staff who have completed training on the use of the integrated EMIS.	Annual	MoE and GIAC lists of administrative staff who attended training activities	MoE and GIAC
Number of female administrative staff trained in the use of the integrated EMIS.	The number of female administrative staff who have completed training on the use of the integrated EMIS.	Annual	MoE and GIAC lists of administrative staff who attended training activities	MoE and GIAC
Grievances registered related to delivery of project benefits addressed (%)	This indicator measures the transparency and accountability mechanisms established by the project so the target beneficiaries have trust in the process and are willing to participate, and feel that their grievances are attended to promptly. It is understood that local sensitivities and tensions will not allow grievance or redress mechanisms to be established in all projects.	Annual	MoE documents	MoE
Grievances related to delivery of project benefits that are addressed-(number)	No description provided.	Annual	MoE documents	MoE

Annex 2: Detailed Project Description

BELARUS: Education Modernization Project

1. The proposed Project aims to support the efforts of the Government of Belarus to strengthen the quality of the country's secondary education system. It will do this by: (a) improving access to quality learning environment in selected general secondary schools and (b) strengthening student assessment and education management information systems of the Republic of Belarus.

Component 1: Ensuring a quality learning environment in schools receiving students from closed/reorganized schools (US$46.225 million equivalent).

2. The objective of this component is to provide a learning environment that is conducive to quality education.

Subcomponent 1.1. Strengthening infrastructure of institutions which receive (or plan to receive) students from schools closed or reorganized under the optimization program.

3. The objective of this subcomponent is to ensure that school consolidation efforts are supported with adequate learning environment in receiving schools. This subcomponent will support activities at the level of schools and local authorities.

4. At present, Belarus's education system is enduring the effects of a two-decade-long demographic decline. Having its school-age population shrink by one-third between 1990 and 2010, the country's school network has struggled to adjust. In response, the Government of Belarus has undertaken an aggressive approach to optimizing under-enrolled schools. Since 2007, 673 general secondary education institutions have been closed and an additional 789 reorganized. After schools from several neighboring villages are consolidated, students are typically transported to a nearby receiving school, which serves as a hub for that area. Yet many of these schools provide a learning environment no better than the one the children left behind in their old schools. Reconstruction and rehabilitation of receiving school facilities is lagging, and modern learning equipment and technology is non-existent in many schools.

5. Under the proposed Project, the school consolidation activities will be supported by financing rehabilitation and capital repairs of selected receiving schools serving students from closed or reorganized schools. This investment will support the Government's optimization program by enabling a further consolidation of under-enrolled schools with the objective of reducing unit costs of education provision and ensuring an adequate quality of the learning environment for the affected students.

6. To this end, this subcomponent would support the following activities: (i) preparatory work for activities on the reconstruction and capital repairs of selected general secondary education (GSE) facilities; and (ii) reconstruction and capital repairs of selected general secondary education (GSE) facilities.

7. Selection of the schools to benefit from the activities under Component 1 is done in two stages. At the first stage, the Ministry of Education collected from regional education departments lists of schools that meet the following *eligibility criteria*:

(a) GSE institutions that receive (or plan to receive through 2017) students from closed or reorganized schools in rural areas; and

(b) GSE institutions that require capital repairs or reconstruction.

8. Based on information received from regional authorities, the Ministry of Education has compiled a list of 156 schools that fit the above-mentioned eligibility criteria. The list includes preliminary information on rehabilitation needs which will be assessed in details prior to any rehabilitation activities (which may include work on external walls, roofs, windows, floors, basements, laboratories, gymnasiums, and heating and sewer systems, among other types of activities). The final list of schools will be selected in the second stage, taking into account the results of the thorough assessment of rehabilitation needs in order to maximize the impact of investments in meeting the project objectives. The following *selection criteria* will be used:

(a) Total number of students studying in the receiving school;

(b) Number of students from closed/reorganized schools in the receiving school;

(c) Prospective viability of the institution in the *rayon* in which the school is located;

(d) Level of socioeconomic well-being of the *rayon*; and

(e) Volume of funds required for investment in the institution in order to meet project objectives.

An emphasis under the project will be placed on institutions serving students in *rayons* with lower level of socioeconomic development which will form the core group of beneficiaries from Project investment.

9. The expected outputs of this subcomponent are: (i) at least 120 receiving schools are rehabilitated under the Project; and (ii) at least 25,000 students are enrolled in such schools by 2021.

10. The institutional responsibility for implementing these activities would rest with the NIE. To support the NIE, a supervising entity would be hired to organize the construction activities and provide technical supervision. Design and construction services would then be procured separately, grouped by regions or types of works, in order to minimize administration costs.

Subcomponent 1.2: Improving access to and use of laboratory equipment and information technologies in the educational process.

11. The objective of this subcomponent is to ensure that the schools rehabilitated in subcomponent 1.1 are equipped with the necessary scientific materials and information technology to provide an adequate learning environment.

12. At present, the majority of laboratory and computer equipment for general secondary schools is provided using local budget financing. As a result, localities with greater budget resources (such as large cities and wealthy *rayons*) are more likely to fully equip their schools with

the necessary learning equipment. On the other hand, rural *rayons* with sparse student populations find their education budgets stretched too thin (often as a result of inefficient school network organization) to provide adequate equipment for their students. Starting in 2013, the Republican budget has begun financing centralized provision of physics laboratories to under-served schools with 222 laboratories equipped in the first year at a cost of approximately US$10 million. A similar amount was allocated in 2014. However, the majority of institutions receiving lab equipment under this program are elite lyceums, gymnasiums, and schools in large cities.

13. Under the proposed Project, schools in small towns and rural areas receiving students from optimized schools would be provided with the necessary lab equipment to meet the minimum conditions for a quality learning environment. The Ministry of Education, in consultation with local authorities, will decide which schools—among the ones selected for rehabilitation under subcomponent 1.1—will receive which type of laboratory equipment (physics, chemistry, biology) and IT equipment. The deficits in equipment will be filled through centrally procured lots and the corresponding teacher training will be provided through existing professional development channels in the education sector. The focus of teacher training will be on effective use of laboratory and IT equipment in the educational process and equipping Belarusian students with modern digital skills, essential in the 21st century.

14. To this end, this subcomponent would support the equipping of subject laboratories with learning equipment (physics, chemistry, biology, information technology) in the selected schools. Appropriate training for effective use of IT equipment in the educational process would be provided to teachers who will use laboratory equipment through the existing system of teacher training in the Republic of Belarus, using the Borrower's counterpart funds.

15. The expected outputs of this subcomponent are: (i) selected receiving schools will be equipped with laboratory or IT equipment; (ii) teachers in beneficiary schools will undergo a training program on digital skills and effective use of IT equipment in the educational process.

16. The institutional responsibility for implementing these activities would rest with the NIE. Separate tenders would be launched for complete sets of physics, chemistry, biology, and information technology teaching laboratory equipment. The tenders would include the delivery, installation, and calibration of equipment, and be separated into lots by year of delivery to coincide with the completion of rehabilitation activities in each of the selected schools. Subject teachers expected to use the supplied equipment would be trained on its effective use in the educational process through the existing teacher training channels currently in use within the Belarus education system.

Component 2: Modernization of system management in general secondary education (US$2.9 million equivalent).

17. The objective of this component is to facilitate the use of international best practices in assessing the quality of education and using data analysis for education system management.

Subcomponent 2.1. Improvements to the national student assessment system.

18. The objective of this subcomponent is to revise the current system of national sample-based assessments for monitoring of educational quality in grades 4, 8, 9, and 10 to bring it in line with international best practices.

19. At present, the National Institute of Education (NIE) carries out annual assessments under the program of Republican monitoring of educational quality. These assessments are conducted on a sample basis by evaluating students in selected schools in each of the following areas: Belarusian language, Russian language, and mathematics (grades 4, 8, and 10); physics, chemistry, biology (grades 8 and 10), and social science (grades 9 and 10). In addition to quantitative assessment of students' knowledge, this exercise also evaluates qualitative aspects of the educational process, which include the quality of educational services, students' personal development, and their level of fatigue in school. In the 2013/2014 round of assessments, 9200 students from 90 schools participated, in addition to 980 parents and 1750 teachers.

20. Under the proposed Project, the Republican monitoring system would be strengthened in several ways. First, the capacity of the national agency responsible for carrying out these assessments will be strengthened in a number of technical areas, including the application of appropriate sampling techniques, internationally accepted psychometric practices of test design, and modern approaches to test implementation and scoring, among others. The proposed Project would also equip the responsible national agency with appropriate computer hardware and statistical software required for processing and analyzing the assessment results.

21. To this end, this subcomponent would support the following activities: (i) consultations with international experts regarding the improvement of the national assessment system; and (ii) professional training of Belarusian specialists in the field of student learning assessments. An assessment of current practices in this area is underway using the World Bank's SABER-Student Assessment instrument; its results will be used to inform project activities.

22. The expected outputs of this subcomponent are: (i) a series of seminars led by international experts on topics covering best practices in classroom-based assessments, large-scale sample-based assessments, and final examinations; development and expert review of the diagnostic framework; statistical processing, analysis, and interpretation of assessment results; and the use of results to manage the quality of education; (ii) a cadre of Belarusian experts trained abroad in the leading techniques of learning assessment; (iii) a functioning upgraded system of sample-based national assessments.

23. The institutional responsibility for implementing these activities would rest with the NIE, which carries out the current sample-based assessments through its Department of Monitoring of the Quality of Education. The Institute's capacity for implementing these assessments would be strengthened through trainings and internships for its staff, expanded use of information technology and modern software packages, as well as the establishment of formal and informal links with international experts and assessment institutions. The NIE would coordinate the implementation of subcomponent activities with the Ministry of Education, as well as local education authorities and other actors involved in students assessments within the Republic of Belarus.

Subcomponent 2.2. Participation in international student assessments.

24. The objective of this subcomponent is to facilitate Belarus's first ever participation in an internationally comparable system of student learning assessment. This would be achieved by developing the capacity of the national institutions to prepare for, implement, and analyze the results of PISA 2018.

25. At present, the Republic of Belarus stands out as one of the last countries in Europe to have never participated in the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), or the Progress in International Reading Literacy Study (PIRLS). Without the results of such studies, Belarusian authorities are unable to accurately track the trends in student learning achievement produced by the country's education system or assess whether Belarus's students are gaining the skills needed to function effectively in an increasingly competitive global labor market. Following the World Bank's 2013 Public Expenditure Review, which strongly recommended the national authorities to consider joining one of the aforementioned international systems, the Ministry of Education has assessed the feasibility of each given the needs of the Republic of Belarus. The Ministry has signaled its interest in joining the 2018 round of PISA and requested World Bank support under the proposed Project.

26. To this end, this subcomponent would support the following activities: (i) financing the international overhead costs of participation in PISA 2018; (ii) supporting the relevant preparation activities conducted by national authorizes, including the development, translation, and editing of test materials; education, training and preparatory workshops; and piloting of assessments; (iii) supporting the relevant test implementation activities, including printing, distribution, and supervision of assessments; data processing and analysis; and dissemination of results; and (iv) financing institutional development activities, such as strengthening the capacity of the national implementing agency responsible for carrying out international student assessments. The latter category may include, among other activities, the recruitment of temporary staff to assist in test implementation, procurement of international expertise in the area of assessment preparation and implementation, and the strengthening of IT capacity of the respective national implementing agency.

27. The expected outputs of this subcomponent are: (i) Belarus joining the international preparatory activities for PISA 2018, including participation in periodic meetings of National Program Managers (NPMs) and payment of annual contributions to the OECD; (ii) Belarus carrying out PISA testing among its students during 2018; and (iii) Belarusian authorities analyzing and publicly disseminating within the country the results of the PISA 2018 assessments.

28. The institutional responsibility for implementing these activities would rest with the Republican Institute for Knowledge Control. The RIKC is an organization under the Ministry of Education of the Republic of Belarus, which includes the development and implementation of the Centralized Testing university admissions exam among its primary tasks. As a result, the Institute possesses significant capacity in test development and implementation, which will facilitate Belarus's first ever participation in PISA. The Institute's capacity will be further strengthened to meet PISA requirements. The RIKC would coordinate the implementation of subcomponent activities with the Ministry of Education, as well as local education authorities and other actors involved in students assessments within the Republic of Belarus.

Subcomponent 2.3. Improvement of the existing Education Management Information System (EMIS) to facilitate the use of data analysis for supporting sector management decisions.

29. The objective of this subcomponent is to modernize the systems and practices of data collection and analysis in the education sector through the development of an integrated EMIS.

30. At present, the Ministry of Education does not possess a modern integrated EMIS that meets accepted international standards for such systems. The data collection practices are fragmented and insufficient for informing decisions on the key policy questions facing the sector. Even information that is collected is not routinely used by different parts of the Ministry and other stakeholders in the education sector to make key policy decisions. The capacity and demand to analyze such data and disseminate the results is currently low. Under the proposed Project, the data collection and analysis capacity of the Ministry would be enhanced in several ways. First, a design for a modern EMIS will be developed appropriate for the sector's needs. Second, the necessary computer hardware and data management software will be procured. And third, the responsible national agency and other relevant actors will receive sufficient training on modern data collection, processing, and analytical techniques to maximize the effectiveness of EMIS use for informing future policy decisions.

31. To this end, this subcomponent would support the following activities: (i) development of a system for the collection and processing of primary data from educational institutions; (ii) development of a system for the generation of aggregate data and reports on the basis of primary data; (iii) development of analytical capacity using data management software and training; (iv) development and attestation/certification of the data protection system. An assessment of current practices in this area is underway using the World Bank's SABER-EMIS instrument; its results will be used to inform project activities.

32. The expected outputs of this subcomponent are: (i) an integrated EMIS is developed in line with international best practices; (ii) the EMIS is functional and being utilized for data collection from general secondary education institutions; (iii) EMIS data are being analyzed and utilized for decision making within the Ministry of Education and at other levels of the Belarus education system.

33. The institutional responsibility for implementing these activities would rest with the Main Information-Analytical Center (GIAC) under the Ministry of Education. The GIAC is an organization tasked primarily with the collection and dissemination of education statistics, as well as the development and implementation of information and communication technologies in the education sector of the Republic of Belarus. The Center's capacity in the area of education statistics would be strengthened through the development of a world-class EMIS and training for staff in the best practices of data collection and analysis. The GIAC would coordinate the implementation of subcomponent activities with the Ministry of Education, as well as local education authorities and other actors involved in education data collection within the Republic of Belarus.

Component 3: Project implementation support (US$1.4 million equivalent, including US$650,000 in counterpart financing).

34. The objective of this component is to ensure adequate support for the implementation of the proposed Project activities. To this end, the proposed Project would finance consultant services, training directly related to project implementation, financial audit, and selected operating expenses. The majority of operating costs of a Project Implementation Unit (PIU) housed within the National Institute of Education (NIE) will be financed using Republican budget funds. These may include, among others, salaries of staff members engaged in Project implementation, social insurance contributions, purchase of consumables, business trip expenses, communication expenses, utility costs, other current expenses, purchases of software and computer hardware, and so forth.

Annex 3: Implementation Arrangements

BELARUS: Education Modernization Project

Project Institutional and Implementation Arrangements

Project administration mechanisms

1. The project will be implemented over a five-year period by the Ministry of Education of the Republic of Belarus. The Ministry would have the overall responsibility for project coordination and monitoring of implementation progress. The Ministry would delegate the responsibility for managing the day-to-day preparation and implementation of the proposed Project, including overall fiduciary responsibilities, to the National Institute of Education (NIE). A Project Implementation Unit (PIU) will be created within NIE and will be financed by the Borrower to maintain throughout Project implementation qualified staff in sufficient numbers, as well as adequate funds, facilities, services and other resources for Project implementation (including, procurement, financial management, environmental and social aspects and monitoring and evaluation), all acceptable to the Bank. The PIU may also be supported with outside specialists on an as-needed basis.

2. Technical expertise and responsibility for project implementation will be delegated to the NIE and two other organizations subordinate to the Ministry of Education. The Republican Institute for Knowledge Control (RIKC) will oversee the technical implementation of subcomponent 2.2, while the Main Information Analytical Center (GIAC) will oversee the technical implementation of subcomponent 2.3. NIE will liaise with these organizations to ensure a smooth and unified approach to procurement and financial management under the Project. The Ministry of Education would retain the responsibility for strategic guidance and overall project oversight.

3. An interagency working group consisting of representatives from the Ministry of Education and its subordinate organizations (NIE, RIKC, and GIAC), as well as the Ministries of Economy, Finance, Communication and Informatization, and Foreign Affairs, and local education authorities was created in December 2014 to coordinate preparation and implementation of the proposed Project. This group is chaired by the Deputy Minister of Education.

4. Because this is the first ever World Bank-financed investment operation in the education sector of the Republic of Belarus, the Bank will undertake additional measures to ensure adequate project implementation capacity is developed in the respective organizations. To this end, a recipient-executed grant from the Institutional Development Fund (IDF) in the amount of US$340,000 was approved and became effective in November 2014. The grant activities are designed to help build capacity in several areas of the education sector, including familiarizing the education stakeholders with the Bank's processes and requirements (such as those in the areas of procurement and financial management).

Financial Management, Disbursements and Procurement

Financial Management

5. The FM project arrangements will meet the minimum requirements after the agreed actions, as summarized below, are completed. The FM assessment focused on the assessment of the existing capacity of NIE, building on its current experience of implementation of a small IDF grant, and with the goal of maximizing the use of existing country systems. Given that NIE is relatively new to implementing World Bank-financed projects, additional capacity building effort and implementation support to NIE would be provided during preparation and beginning of implementation, including initial training and frequent supervision support. The FM and disbursement functions in this project will be the sole responsibility of NIE and its PIU, and none of the other entities, involved in technical aspects, will be involved in the flow of funds mechanism.

6. ***Staffing.*** Staff of the accounting department of NIE have experience in accounting and reporting under requirements of local legislation, including accounting and reporting under National Accounting Standards. NIE has already gained some experience in implementation of World Bank-financed project through the ongoing implementation of the small IDF grant. However, capacity will need to be further built to allow involvement of NIE is a much larger and more complex project. The part-time FM consultant that is helping NIE with the grant implementation will need to be hired on a full time basis within three months of effectiveness. Such arrangements can be put in place within three months after project effectiveness and FM consultant be financed from project funds. Additionally, one or two accountants of NIE (members of the PIU) will be appointed responsible for financial management of the project. Specific roles and responsibilities of the NIE staff and the FM consultant will need to be clearly defined in the project POM.

7. ***Accounting and reporting.*** Existing accounting software 1-C will be used for project accounting and reporting purposes. Project records will be maintained on a separate set of accounts that are segregated from the other records of NIE. The available 1-C software is acceptable, and its further modifications to fully suit the Project needs will be made, specifically to allow recording USD equivalents of payments as well as allow automatic preparation of reports, both IFRs and SOEs. The accounting system will be modified. The contract for the adaptation of the 1-C accounting software will be signed no later than ninety days from the project effectiveness (*dated covenant*). The NIE PIU will prepare and submit consolidated quarterly IFRs after end of each calendar quarter, based on the agreed sample format, starting from the quarter in which the first project disbursements occur.

8. ***Auditing.*** Project financial statements will be audited annually by independent auditors acceptable to the Bank, and will cover the entire project, including all components. Such audits will be carried out under requirements of International Standards on Auditing, and will be due six months after end of each fiscal year. Annual audits of the entity financial statements of NIE will not be required. Project audit reports and financial statements will be publically disclosed by NIE and by the World Bank within two months of their submission.

9. ***Internal controls.*** An additional area of focus of the assessment are the procedures and internal controls for the coordination between NIE (in charge of fiduciary functions) and the other

organizations that would be involved in implementing Component 2 of the proposed Project. Internal controls will include segregation of duties between responsible staff, authorizations of payment documents, periodic reconciliations of records, etc. Effectiveness of internal controls will be reviewed during FM monitoring visits, and auditors will be required to report on any deficiencies in the internal control operations. A Project Operations Manual (POM) will be approved by effectiveness (*condition of effectiveness*), detailing the functions of the FM staff involved in project implementation, as well as providing a full description of the internal controls and procedures.

10. ***Supervision plan.*** The minimum number of FM monitoring visits will be at least two times per year during the initial stages of project implementation, and the frequency may be decreased to one time per year during later stages. In the interim period, the Bank will review interim unaudited financial reports (IFRs) and annual audited financial statements and auditor's management letters. Initial training to project staff will also be provided as needed.

Disbursements

11. Bank funds would be disbursed under the Bank's transactional procedures including direct payments from the loan account, issuance of Special Commitments and disbursements through the Designated Account (DA).

12. The Designated Account may be opened and managed at a commercial bank acceptable to the World Bank, including appropriate protection against set-off, seizure and attachment. The maximum allocation for the Designated Account will be established in the Disbursement Letter. The frequency of reporting eligible expenditures paid from the Designated Account would be on a monthly basis, supported by necessary documentation as stated in the Disbursement Letter and along with the DA bank statement and a reconciliation of the DA bank statement.

13. Further, an account in BYR for payments in BYR will be opened in the same commercial bank. The treasury system will not be used for making project-related payments as currently the Treasury account is only being used for executing payments for central government budget program/activities. Project funds will not be managed as part of the state budget, and NIE falls outside the central government systems. NIE will be the only agency handling FM and disbursements. Funds will not flow to any other agency that will be involved only in technical aspects of project implementation. Accordingly, there would be no advances made to these other agencies. NIE will be making payments directly to all contractors.

Procurement

14. Procurement of goods, works, and non-consulting services for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," dated January 2011 and revised on July 1, 2014 (Procurement Guidelines); and procurement of consultant services will be carried out in accordance with the World Bank's "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," dated January 2011 and revised on July 1, 2014 (Consultant Guidelines), and the provisions stipulated in the Loan Agreement. The Bank's "Guidelines on

Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants," dated October 15, 2006, and revised in January 2011 (Anti-Corruption Guidelines) will apply to this project. A General Procurement Notice has been published on the Bank's external website and the UN Development Business website after loan's negotiations. The following section describes the procurement implementation arrangements agreed with the Project Implementation Team.

Procurement Capacity and Risk Assessment

15. A Procurement Capacity and Risk Assessment of the project's implementing agency (NIE) was carried out between December 2014 and February 2015. The PIU will be directly responsible for the day-to-day implementation of all the activities under the project. The PIU will be in charge of the entire procurement process, including planning, preparation of bidding documents, evaluation of bids, award of contracts, and contract management. The PIU will be strengthened with the external consulting company that will support the PIU is implementation and supervision of school rehabilitation component. With respect to Component 2, the PIU will coordinate all procurement processes, however the respective education entities (RIKC and GIAC) will be in charge of preparing terms of reference or technical specifications for their assignments including quality check and approval of consultants' work. The PIU's procurement function will be additionally strengthened by a Procurement Specialist, who has been hired under the IDF Grant and will support the project's preparation in the first stage. During project implementation, a procurement consultant will be hired to help the PIU manage tenders in accordance with World Bank rules and procedures.

16. The key issues and risks concerning procurement for implementation of the project include: (i) potential risk of delays in the implementation of the first set of works contracts, including procurement of laboratory and IT equipment, (ii) costs overruns due to claims and variation orders, and (iii) low competition.

17. Given the findings of the assessment as presented above the procurement risk for the proposed project is rated as substantial.

18. To mitigate the identified procurement-related risks, the following mitigation actions were agreed between the Bank and the client during project preparation.

	Mitigation measure	**Responsible party**	**Deadline**
1	Prepare a detailed procurement plan for the first 18 months of the implementation of the project	PIU	Appraisal (no later than 1 March 2015)
2	Organize a business outreach for potential bidders or consultants before launching the first bidding procedures	PIU	Negotiations (no later than 1 July 2015)
3	Finalize preparation of the bidding documents for the first year of project implementation of Component 1 well in advance	PIU	Negotiations (no later than 1 July 2015)

	Mitigation measure	Responsible party	Deadline
4	Hire a Procurement Consultant	PIU	Implementation
5	The Bank's procurement specialist will work closely with PIU and will organize procurement refresher training events to project staff whenever required during project implementation	Bank	Recurrent
6	Preparation of procurement progress reports by the Borrower during Project implementation	PIU	Implementation

Procurement Implementation Arrangements

19. ***Procurement of Works.*** The project will include rehabilitation, reconstruction and upgrading of several schools across Belarus. Currently large value civil works are not envisaged, however, if any contracts are above US$10 million, the Bank's recent Standard Bidding Documents (SBD) Procurement of Works will be used. For individual contracts below US$10 million, the most recent Standard Bidding Documents (SBD) Procurement of Small Works will be used. International Competitive Biddings (ICBs) shall be conducted for all contracts above US$5 million per contract. For contracts below US$5 million per contract, the same SBD for Procurement of Small Works may be used or a sample Bidding Documents for the National Competitive Bidding. For contracts below US$5 million, National Competitive Bidding (NCB) procedure will apply, instead of ICB. For very small value civil works contracts estimated to cost not more than US$200,000 per contract a shopping procedure may be used.

20. ***Procurement of Goods and Non-consulting Services.*** The project will involve procurement of laboratory equipment. The most recent version of the Bank's Standard Bidding Documents (SBD) for Goods shall be used for all International Competitive Biddings (ICBs) above US$1 million per contract. For contracts below US$1 million, the Bank's sample Bidding Documents for Goods under the National Competitive Bidding (NCB) may be used and a shopping procedure for goods estimated to cost up to the equivalent of US$100,000 per contract. *For the ICT related procurement*, a general purpose hardware and off-the-shelve software (without customization) SBD for Goods may be used. *Single Stage IT SBD:* If a procurement package combines critical goods and services elements, sophisticated hardware requiring an informed performance comparison and special training requirements, a dominating value of the software packages, extra installation and support requirements for these, software design, large-scale adaptation and/or development, requirements for the supplier to continue to operate the equipment after installation, for contracts requiring pricing for both investment and recurrent costs (life-cycle).

21. Logistical services for training and workshops related to technical assistance shall be procured as non-consulting services.

22. ***Selection of Consultants.*** The consultant services under the project will include inter alia: construction design services under Component 1 and technical assistance and various studies under

Components 2 and 3. For assignments estimated to cost US$300,000 per contract, the short-list may comprise entirely national consultants.

23. ***Procurement Plan and Procurement Thresholds.*** The PIU has developed a Procurement Plan for the first 18 months of the project that also provides a basis for the procurement methods and thresholds. This plan has been agreed between the PIU and the Bank and will be published on the Bank's external website after loan negotiations. The Procurement Plan will be updated at least annually or as required to reflect actual project implementation needs. Procurement under the project will include the following categories: Works, Goods and Non-Consulting and Consulting Services. The applicable thresholds for procurement methods and Bank prior review applied for procurement are presented below.

24. The Bank will review the procurement arrangements as performed by the PIU. The procurements not receiving prior review by the Bank will be subject, on a random basis, to the Bank's ex post review in accordance with the procedures set forth in appendix 1 of the Procurement and Consultant Guidelines. One in 15 contracts under the project will be subject to the Bank's ex post review. The ex post review of procurement documents will normally be undertaken during the Bank's implementation support visits; the Bank reserves the right to request documents for any contract at any time.

Project Procurement Plan

Contract Package	Contract Description	Type	Lots	Procurement Method	Review by Bank (Prior/ Post)	Invitation to Bid	Expected Bid/Proposal Opening Date	Contract Award	Expected Contract Completion Date
Component 1: Ensuring a quality learning environment in schools receiving students from closed/reorganized schools									
BEMP/1.1/1	Reconstruction and capital repairs of general secondary education (GSE) facilities in Brest oblast	SW	multi	NCB	Prior	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/2	Reconstruction and capital repairs of GSE facilities in Vitebsk oblast	SW	multi	NCB	Prior	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/3	Reconstruction and capital repairs of GSE facilities in Gomel oblast	SW	multi	NCB	Post	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/4	Reconstruction and capital repairs of GSE facilities in Grodno oblast	SW	multi	NCB	Post	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/5	Reconstruction and capital repairs of GSE facilities in Mogilev oblast	SW	multi	NCB	Post	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/6	Reconstruction and capital repairs of GSE facilities in Minsk oblast	SW	multi	NCB	Post	01/09/15	21/10/15	19/01/16	31/12/16
BEMP/1.1/7	Development of construction design documentation for GSE facilities (1 phase)	CS	1	CQS	Prior	01/02/16	12/03/16	11/04/16	08/10/16
BEMP/1.1/8	Development of construction design documentation for GSE facilities (2 phase)	CS	1	CQS	Prior	25/04/16	04/06/16	04/07/16	31/12/16
BEMP/1.1/9	Development of construction design documentation for GSE facilities (3 phase)	CS	1	CQS	Prior	25/07/16	03/09/16	03/10/16	01/04/17
BEMP/1.1/10	Reconstruction and capital repairs of GSE facilities (several packages)	SW	multi	NCB	Post	06/01/17	25/02/17	26/05/17	01/09/20
BEMP/1.1/11	Organization and technical supervision of construction activities	CS	1	CQS	Prior	01/12/15	10/01/16	09/02/16	31/12/20
BEMP/1.2/1	Supply, installation, and calibration of physics laboratories	G	multi	ICB/NCB	Prior	01/02/15	23/03/15	21/06/15	31/12/20
BEMP/1.2/2	Supply, installation, and calibration of chemistry laboratories	G	multi	ICB/NCB	Prior	01/02/15	23/03/15	21/06/15	31/12/20
BEMP/1.2/3	Supply, installation, and calibration of biology laboratories	G	multi	ICB/NCB	Prior	01/02/15	23/03/15	21/06/15	31/12/20
BEMP/1.2/4	Supply, installation, and calibration of IT laboratories	G	multi	ICB/NCB	Prior	01/02/15	23/03/15	21/06/15	31/12/20
Component 2: Modernization of system management in general secondary education									
BEMP/2.1/1	Strengthening the existing system of assessments	CS	multi	IC	Prior			2016	2017
BEMP/2.1/2	Trainings of Belarusian experts at home or abroad	CS	multi	TR	Prior			2016	2017
BEMP/2.2/1	Capacity development for PISA implementation	CS	multi	IC	Prior			2016	2018
BEMP/2.3/1	Improvement of the existing Education Management Information System (EMIS)	CS	1	CQS	Prior			2016	2018
Component 3: Project implementation support									
BEMP/3/1	Engineering consultant for PIU	CS	1	IC	Prior	01/01/16	15/01/16	29/01/16	19/02/21
BEMP/3/2	Project coordinator	CS	1	IC	Prior	01/01/16	15/01/16	29/01/16	19/02/21
BEMP/3/3	Procurement consultant for PIU	CS	1	IC	Prior	01/01/16	15/01/16	29/01/16	19/02/21
BEMP/3/4	Financial management consultant for PIU	CS	1	IC	Prior	01/01/16	15/01/16	29/01/16	19/02/21
BEMP/3/5	PIU Translator	CS	1	IC	Post	01/01/16	15/01/16	29/01/16	19/02/21
BEMP/3/6	Financial Audit of the Project	CS	1	LCS/CQS	Prior	03/04/16	31/08/16	30/10/16	19/02/21

Thresholds for Procurement Methods and Bank Prior Review

Expenditure Category	Contract Value (USD)	Procurement Method	Bank Prior Review
Works	>=5,000,000	ICB	All the ICB contracts
	<5,000,000	NCB	First two contracts

	<200,000	Shopping	First contract.
	NA	DC	All DC contracts above 30,000.
Goods / Supply & Install & IT Systems	>=1,000,000	ICB	All the ICB contracts
	<1,000,000	NCB	First two contracts
	<100,000	Shopping	First contract
	NA	DC	All DC contracts above 30,000
Non-consulting services	>=1,000,000	ICB	All the ICB contracts
	<1,000,000	NCB	First two contracts
	<100,000	Shopping	First contract
	NA	DC	All DC contracts above 30,000
Consultant Services	>=300,000	QCBS, QBS, FBS, LCS	All contracts >= 300 000 for firms and first firm's consultancy contract irrelevant of the value; all TORs for firms and individuals; and SSS contracts above 5,000. Audit or legal contract, including FM and procurement consultant selections.
	<300,000	QCBS, QBS, FBS, LCS and	
	NA	SSS	
	NA	IC	

ICB – International Competitive Bidding
NCB – National Competitive Bidding
DC – Direct Contracting
QCBS – Quality and Cost Based Selection
QBS – Quality Based Selection
FBS – Fixed Budget Selection
LCS – Least Cost Selection
CQS – Selection Based on Consultants' Qualification
SSS – Single (or Sole) Source Selection
IC – Individual Consultant selection procedure
NA – Not Applicable

Environmental and Social (including safeguards)

25. Component 1 of the proposed project includes activities to rehabilitate school facilities. The schools where the rehabilitation will take place and exact nature of rehabilitation needs in each school is not defined yet, and may include work on external walls, roofs, windows, floors, basements, laboratories, gymnasiums, and heating and sewer systems, among others. Rehabilitation works are expected to have some temporary negative impacts typical for reconstruction/rehabilitation of small to medium size constructions. The potential negative impacts are perceived to be relatively minor and can be readily mitigated with standard procedures. Due to the expected environmental impact of these activities, OP/BP 4.01 Environmental Assessment is triggered. Based on the safeguards policy and given the expected nature of the works, the proposed Project is classified as Category B.

26. Since the exact locations of all affected schools were not known prior to project appraisal, an Environmental Management Framework (EMF) has been developed. The EMF was disclosed (in Russian) on the website of the Ministry of Education on January 9, 2015, and public consultations have been carried out in 89 districts and towns throughout the country. The final version of the EMF in Russian was disclosed on the website of the Ministry of Education on March 4, 2015, and submitted (in English) to the Bank's InfoShop on March 27, 2015. Once the sites for school rehabilitation are chosen, site-specific Environmental Management Plans (EMPs) will be prepared to mitigate the negative environmental impacts for the affected sites. The simplified EMP Checklist for Small Construction and Rehabilitation Activities may be used for most sites, while a fuller version of the EMP may be required in case of higher risk construction projects. Environmental risks of these activities are expected to be modest and limited to the construction sites and to the period of construction works. Managing these impacts and keeping them to the acceptable minimum will be achieved effectively by adhering to the good construction practice and applying the mitigation measures detailed in the EMPs or EMP Checklists.

27. An important principle for selecting buildings for rehabilitation and preparing design documents will be to screen them for revealing any structural damage and instability to address these faults. The screening will include potential environmental issues, such as asbestos-containing materials, lead-based paint and adequate waste water disposal. The EMF includes measures for the project subcomponents that may finance upgrade of school laboratories and purchase of equipment, including design aspects (e.g., ventilation hood if applicable), operating procedure and disposal of old equipment.

28. All project works are anticipated to occur within the existing school site and it is unlikely that any of the school buildings selected for the rehabilitation will have a historic value and/or have present physical cultural resources. As such, OP/BP 4.11 Physical Cultural Resources is not triggered. Nevertheless, as part of the environmental management under OP/BP 4.01, the EMF includes procedures for addressing physical cultural resources encountered during implementation ('chance finds'). All rehabilitation works under the project are expected to take place within the existing footprint of educational facilities and no land acquisition is expected. The actual situation in Belarus is supported by the well-enforced regulatory framework that prohibits squatters and vendors within territory of the school compound, thus permanent or temporary physical or economic displacement as the result of the project is not expected. Consequently, OP/BP 4.12 Involuntary Resettlement is not triggered.

29. The PIU will appoint one staff member to be in charge of safeguards compliance. Since the NIE has no prior experience with World Bank safeguards policies, its staff would receive guidance and on-the-job training from the Bank's safeguards specialists in the early stages of project implementation.

Monitoring & Evaluation

30. The PDO level and intermediate results indicators would be monitored using the following data collection instruments:

(a) Regular surveys and data collection processes, such as the existing Republican monitoring exercise;

(b) Administrative data currently available in the education sector and the integrated EMIS to be developed under the proposed Project; and

(c) Monitoring reports prepared by the PIU.

31. The monitoring and evaluation function would be carried out by the PIU. One staff member would be assigned the responsibility for monitoring and evaluation of the project, including coordinating the collection of information from the Ministry of Education and other implementing agencies and communicating these results to the World Bank according to the frequency of reports described in Annex 1. The selection of project indicators was guided by the current state of data availability in the education sector and the reasonable expectations about the development of sector monitoring systems as a result of the proposed Project. Under the Project, the monitoring and evaluation capacity of the Ministry of Education and other implementing agencies (such as the NIE and GIAC) would be further developed to allow more effective sector management going forward.

Annex 4: Implementation Support Plan

BELARUS: Education Modernization Project

Strategy and Approach for Implementation Support

1. The Bank team will support the implementation of the planned project activities by the implementing agencies, provide technical advice necessary to facilitate achieving the PDO as well as ensure that risk mitigation measures are implemented. The Bank team will maintain constructive dialogue with the Project's major stakeholders throughout implementation to ensure provisions of quality advice and effective support to implement the Project.

2. The Bank team will undertake implementation support visits to review implementation progress and ensure needed institutional strengthening on a semi-annual, and if needed more frequent, basis. Regular dialogue with the Government would facilitate early identification and overcoming of problems and obstacles that could delay implementation. Fiduciary oversight would ensure compliancy with the Bank fiduciary standards through the regular supervision of the project's financial management and procurement arrangements.

Implementation Support Plan

3. The implementation support plan identifies the level of technical and safeguard support required for successful Project implementation and indicated in the following table:

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Technical and operational support: (i) improving the learning environment of selected schools, (ii) strengthening of education management systems, (iii) M&E, and (iv) overall implementation	Education Economist (TTL) Education Specialist Senior Education Specialist Operations Officer Infrastructure Specialist (architect/engineer)	12 weeks 8 weeks 6 weeks 10 weeks 2 weeks	Participation in joint reviews
	Financial Management support	Financial Management Specialist	2 weeks	
	Procurement support	Procurement Specialist	2 weeks	
	Social Development support	Social Development Specialist	2 weeks	
	Environmental support	Environmental Specialist	1 week	
13th-60th months	Technical and operational support: (i) improving the	Education Economist (TTL)	10 weeks/year	Participation in joint reviews

	learning environment of selected schools, (ii) strengthening of education management systems, (iii) M&E, and (iv) overall implementation	Education Specialist Senior Education Specialist Operations Officer Infrastructure Specialist (architect/engineer)	8 weeks/year 6 weeks/year 8 weeks/year 2 weeks/year	
	Financial Management support	Financial Management Specialist	2 weeks/year	
	Procurement support	Procurement Specialist	2 weeks/year	
	Social Development support	Social Development Specialist	2 weeks/year	
	Environmental support	Environmental Specialist	1 week/year	

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	12/year	2/year	
Education Specialist	8/year	2/year	
Senior Education Specialist	6/year	1/year	
Operations Officer	10/year	-	Locally based staff
Infrastructure Specialist	2/year	2/year	
Procurement Specialist	6/year	2/year	
Financial Management Specialist	4/year	2/year	
Social Development Specialist	2/year	1/year	
Environmental Management Specialist	2/year	1/year	

Partners

Name	Institution/Country	Role
Ministry of Education	Republic of Belarus	Overall responsibility for project oversight and implementation
National Institute of Education	Republic of Belarus	Daily project coordination, including fiduciary support for the project and preparation of progress reports. Design, quality control, monitoring, and implementation for Component 1 and Subcomponent 2.1
Republican Institute for Knowledge Control	Republic of Belarus	Design, quality control, monitoring, and implementation for Subcomponent 2.2
Main Information Analytical Center	Republic of Belarus	Design, quality control, monitoring, and implementation for Subcomponent 2.3

Annex 5: Map of Belarus

BELARUS: Education Modernization Project