



# Report and Recommendation of the President to the Board of Directors

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Project Number: 51126-002  
October 2019

## Proposed Loan Islamic Republic of Pakistan: Sindh Secondary Education Improvement Project

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**Asian Development Bank**

## CURRENCY EQUIVALENTS

(as of 2 October 2019)

Currency unit	–	Pakistan rupee/s (PRs/PRs)
PRs1.00	=	\$0.0063989
\$1.00	=	PRs156.28

## ABBREVIATIONS

ADB	–	Asian Development Bank
BISE	–	Boards of Intermediate and Secondary Education
EIRR	–	economic internal rate of return
EMO	–	education management organization
GAP	–	gender action plan
GER	–	gross enrollment ratio
GOS	–	Government of Sindh
NER	–	net enrollment rate
PAM	–	project administration manual
PIU	–	project implementation unit
PPP	–	public–private partnership
SEF	–	Sindh Education Foundation
SELD	–	School Education and Literacy Department
SESP	–	Sindh Education Sector Plan

## NOTES

- (i) The fiscal year (FY) of the Government of Pakistan ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2018 ends on 30 June 2018.
- (ii) In this report, "\$" refers to United States dollars.

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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 51126-002	
<b>Project Name</b>	Sindh Secondary Education Improvement Project	<b>Department/Division</b>	CWRD/CWSS
<b>Country</b>	Pakistan	<b>Executing Agency</b>	School Education and Literacy Department, Government of Sindh
<b>Borrower</b>	Islamic Republic of Pakistan		
<b>Country Economic Indicators</b>	<a href="https://www.adb.org/Documents/LinkedDocs/?id=51126-002-CEI">https://www.adb.org/Documents/LinkedDocs/?id=51126-002-CEI</a>		
<b>Portfolio at a Glance</b>	<a href="https://www.adb.org/Documents/LinkedDocs/?id=51126-002-PortAtaGlance">https://www.adb.org/Documents/LinkedDocs/?id=51126-002-PortAtaGlance</a>		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Education</b>	Secondary		75.00
		<b>Total</b>	<b>75.00</b>
<b>3. Operational Priorities</b>		<b>Climate Change Information</b>	
✓ Addressing remaining poverty and reducing inequalities		CO <sub>2</sub> reduction (tons per annum)	870
✓ Accelerating progress in gender equality		Climate Change impact on the Project	Low
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ Strengthening governance and institutional capacity			
<b>Sustainable Development Goals</b>		<b>ADB Financing</b>	
SDG 1.2, 1.a		Mitigation (\$ million)	0.35
SDG 4.1, 4.5, 4.a			
SDG 5.1, 5.3		<b>Gender Equity and Mainstreaming</b>	
SDG 10.2, 10.3		Gender Equity (GEN)	✓
SDG 12.2, 12.4			
SDG 13.a		<b>Poverty Targeting</b>	
		Geographic Targeting	✓
<b>4. Risk Categorization:</b>	Low		
<b>5. Safeguard Categorization</b>	Environment: B Involuntary Resettlement: B Indigenous Peoples: C		
<b>6. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>75.00</b>	
Sovereign Project (Concessional Loan): Ordinary capital resources		75.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>7.50</b>	
Government		7.50	
<b>Total</b>		<b>82.50</b>	
<b>Currency of ADB Financing:</b> US Dollar			

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Islamic Republic of Pakistan for the Sindh Secondary Education Improvement Project.

2. The Government of Sindh (GOS), through the Government of Pakistan, has requested the assistance of the Asian Development Bank (ADB) to support improvements in secondary education in the province.<sup>1</sup> The project will construct secondary school blocks largely in 10 districts in southern Sindh, improve teacher capacity in five key subjects (English, mathematics, biology, chemistry, and physics), and strengthen the secondary education examination system.

## II. THE PROJECT

### A. Rationale

3. **Economic context.** From fiscal year (FY) 2013 to FY2016, the Sindh economy grew by an average of more than 4.0% and this rate accelerated to 5.3% in FY2017. The province benefits from a strategic location, a young and growing workforce, a wealth of resources, and an expanding services sector. These strengths, coupled with Karachi's position as the financial center of Pakistan, provide the potential for Sindh to transform itself into a key driver of economic growth in the country. Despite these advantages, Sindh has yet to translate this potential into economic and social development.<sup>2</sup> While a range of economic and institutional reforms is required to increase Sindh's economic and social potential and generate inclusive growth, education reforms are critically important if the province's education sector is to play its role in developing workers with 21st century skills.

4. **Education sector context.** The 18th Constitutional Amendment of 2010 devolved responsibility for 17 sectors, including education, to provincial governments. The reform ushered in a new education policy framework for provincial governments, including a requirement for the state to provide free and compulsory quality education to children aged 5–16 years, and responsibility for policy areas that were previously shared with the federal government, including education standards, curriculum, and policy and planning. The School Education and Literacy Department (SELD), which oversees school education in Sindh, has since introduced important policy reforms, including merit-based recruitment of teachers, standardized assessment of learning levels, and the expansion of public–private partnerships (PPPs).<sup>3</sup>

5. The SELD has also developed the Sindh Education Sector Plan (SESP), 2014–2018, which sets out strategies to improve the performance of the province's education sector, including expanding educational access in underserved areas, recruiting qualified teachers, improving the public examination system, and developing better school infrastructure.<sup>4</sup> The GOS is preparing a follow-up SESP, 2019–2023. The GOS increased education spending by 39% between FY2015 and FY2018. This helped to lift the share of education in the GOS budget to 20%, or about 1.5% of provincial gross domestic product.

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<sup>1</sup> Secondary education is defined as grades 6–10 and is made up of students in middle school (grades 6–8) and high school (grades 9–10).

<sup>2</sup> World Bank. 2017. *Sindh: Public Expenditure Review*. Washington, DC.

<sup>3</sup> School Sector Governance in Sindh (accessible from the list of linked documents in Appendix 2).

<sup>4</sup> Government of Sindh, School Education and Literacy Department (SELD). 2014. *Sindh Education Sector Plan 2014–18*.

6. **Education sector challenges.** Despite these positive reforms, the education sector in Sindh continues to face significant challenges in terms of access to, and the quality of, education. The continuing poor performance of the province's education system led the GOS to declare an education emergency in 2016. Of the 22.8 million out-of-school children in Pakistan, 28% are in Sindh.<sup>5</sup> Sindh has the second-lowest gross enrollment ratios (GERs) and net enrollment rates (NERs) at all education levels, after Balochistan, among the four provinces, despite growing absolute enrollments.<sup>6</sup> Progress in lifting enrollments has been uneven. From school year (SY) 2008/09 to SY2014/15, the GER in Sindh fell from 59% to 55% at the middle school level and rose from 47% to 51% at the high school level. NERs are lower than GERs because of the large number of overage students in schools. This is due to low enrollments at the primary level and high dropout rates, especially after grade 5, when 31% of public school students drop out.<sup>7</sup>

7. Sector challenges are particularly acute at the secondary education level. The lack of secondary schools is a major constraint to increasing enrollments in Sindh, especially in rural areas, where there are fewer affordable private educational alternatives. Only about 10% of public schools in the province are secondary schools. In rural areas, this figure drops to just 7%. The lack of secondary schools can have a significant impact on girls' enrollments because parents may not allow girls to attend distant schools. Poor learning environments also discourage continued enrollment. This is of concern given that, in SY2016/17, only 33% of public schools in Sindh had buildings rated *satisfactory*, while 55% lacked electricity, and 40% lacked basic facilities such as boundary walls, drinking water, and toilets. While the provision of basic facilities is better in secondary schools, these schools lack advanced facilities, such as laboratories. For example, in SY2016/17, only 15% of the province's secondary schools had a physics laboratory.<sup>8</sup>

8. Access challenges in Sindh are exacerbated by significant disparities in access and learning across gender, socioeconomic groups, and districts. In SY2014/15, the NER for boys aged 14–15 years was 9 percentage points higher than for girls (29% versus 20%) and the gap in the literacy rate for males and females aged 10 and older was 21 percentage points (70% versus 49%).<sup>9</sup> Disparities also exist across districts in Sindh. Education indicators, such as primary school transition rates and literacy rates, in project districts such as Thatta, Badin, Matiari, Sujawal, Tharparkar, and Sanghar are below—and in some cases well below—the provincial average (footnote 8). Low incomes and the opportunity cost of girls' time may limit education access, even though the GOS operates a stipend scheme for girls, and schools run by some education management organizations (EMOs) provide transportation for girls.

9. Quality is also a significant challenge in the Sindh education sector. Learning levels are very low at the secondary level. The mean score in the province's grade 8 standardized achievement test in SY2016/17 was 30.3%, up from 27.8% in 2015/16. In SY2016/17, the mean subject scores were 40% for language, 21% for mathematics, and 26% for science.<sup>10</sup> Data for 2017 show that grade 10 students in Sindh performed poorly (in absolute terms and compared to the national average) on assessments designed to test their competency in mathematics and

<sup>5</sup> Government of Pakistan, Ministry of Federal Education and Professional Training. 2017. *Pakistan Education Statistics 2016/17*. Islamabad.

<sup>6</sup> The gross enrollment ratio measures all students who, whatever their age, are enrolled at a given level of education (e.g., secondary) divided by the number of children of the appropriate age for that level of education. The net enrollment ratio measures all students of the appropriate age for that level of education (e.g., secondary) divided by the number of children of the appropriate age for that level of education.

<sup>7</sup> Asian Development Bank (ADB). 2019. *School Education in Pakistan: A Sector Assessment*. Manila.

<sup>8</sup> Government of Sindh, SELD. 2018. *Better Data, Better Governance: Sindh Education Profile (2016/17)*. Karachi.

<sup>9</sup> Pakistan Bureau of Statistics. 2016. *Pakistan Living Standards and Measurement Survey 2014/15*. Islamabad.

<sup>10</sup> Government of Sindh, SELD. Standardized achievement test (SAT) V. 2016/17 and SELD SAT IV. 2015/16.

languages: 13.8% of them could not recognize numbers, 14% could not read the alphabet in English, and 13.8% could not read the alphabet in Urdu or Sindhi.<sup>11</sup>

10. The poor performance of the Sindh school sector is driven in part by weaknesses in the teacher workforce. Uneven deployment of teachers; lack of trained teachers, especially subject specialists; lack of female teachers in remote areas; and poor teacher motivation and accountability are major challenges. Of the 151,000 public school teachers in Sindh in SY2016/17, fewer than 30% were female, only 20% were at the secondary level, and fewer than 1% were subject specialists. Previous hiring policies have resulted in a large pool of unqualified teachers in public schools—about 20% of teachers have a higher secondary education qualification or less (footnote 8). Pre- and in-service teacher training requires substantial improvement. The accountability framework provides few incentives for teachers to perform. The poor quality of schools hinders learning and lowers enrollments as parents see little value in educating children.

11. Weaknesses in teacher training, quality, management, and accountability are exacerbated by an outdated secondary education examination system, particularly for grades 9–12 where board examinations are mandatory. Weaknesses in the current examination system are well documented. They include (i) an emphasis on rote memorization rather than critical thinking; (ii) poor test preparation, including frequent repetition of examination items across years and uneven coverage of the curriculum; (iii) weak capacity of examination writers and markers, which is exacerbated by the lack of university training programs in these subject areas; and (iv) rampant malpractice and corruption in the administration of board examinations.<sup>12</sup>

12. While additional spending can help improve the performance of the education system, this alone will not be enough, given that a significant proportion of allocated public funds—and particularly the development budget—goes unspent due to bottlenecks and capacity limitations that hinder effective and timely fund flows and spending on key inputs. To improve education sector performance, the GOS has made greater use of PPPs by expanding and refocusing the Sindh Education Foundation (SEF), which subsidizes students to attend low-fee private schools; and by introducing the EMO program, under which the government contracts private partners to operate public schools. Private providers, including nongovernment organizations, will play a significant role in the project given their role in managing schools under the EMO program.

13. **Strategic fit.** There is considerable complementarity between the project and the SESP, 2014–2018 (and the follow-up SESP, 2019–2023), including in expanding educational access in underserved areas, recruiting qualified teachers, improving the public examination system, and developing better school infrastructure (footnote 4). The European Union, the United States Agency for International Development, and the World Bank have been key development partners supporting education in Sindh. The project supports three of the key operational priority areas in ADB's Strategy 2030: addressing remaining poverty and reducing inequalities, accelerating progress in gender equality, and strengthening governance and institutional capacity.

14. **Value added by ADB assistance.** The project adds value by focusing on secondary education, which faces significant access and quality challenges and yet receives less development partner assistance. The project will also support key initiatives such as the expansion of the EMO program, strengthening of subject specialists in five key subjects, and improvements to the examination system. The development of a teacher training and mentoring program may provide a model for future teacher training, with more sustainable impacts. ADB's

<sup>11</sup> ASER (Annual Status of Education Report) Pakistan. 2017. *Annual Status of Education Report 2016*. Islamabad.

<sup>12</sup> Government of Pakistan. 2009. *National Education Policy 2009*. Islamabad.

entry into secondary education may catalyze other development partners to increase their focus on post-primary education in Sindh.

15. **Lessons learned.** The project heeds the lessons of ADB's education sector experience, including the importance of strong policy commitment and ownership, as reflected in the GOS's SESP, 2014–2018. The small size and limited focus of the project recognize the need for realistic project objectives and time frames. The use of a dedicated independent project implementation unit (PIU) with strong capacity reflects the importance of effective implementation. The use of private school managers recognizes the need for effective school operation and construction. Independent verification of EMO key performance indicators and independent supervision of construction reflect the need for effective monitoring and evaluation of project outcomes.

## B. Impact and Outcome

16. The project is aligned with the following impact: Inclusive and equitable quality education for all ensured (Sustainable Development Goal 4).<sup>13</sup> The project will have the following outcome: Inclusiveness of secondary education system in Sindh increased.<sup>14</sup>

## C. Outputs

17. The project has three outputs: (i) new secondary school blocks constructed, and operated under EMO program, (ii) teaching capacity in five key subjects improved, and (iii) secondary education examination system strengthened.

18. **Output 1: New secondary school blocks constructed, and operated under EMO program.** The project will finance the construction of about 160 new secondary school blocks within existing SELD school compounds, largely in 10 districts in southern Sindh.<sup>15</sup> The districts were chosen based on their socioeconomic and education indicators.<sup>16</sup> More districts may be added depending on the capacity of the initial 10 to absorb new secondary school blocks. School sites will (i) be identified from the SELD's list of 4,560 priority schools; (ii) emphasize schools that enroll girls; and (iii) be selected based on social and technical assessments, including the presence of sufficient demand for secondary education in the area. School blocks will incorporate gender-responsive features and will be outfitted with solar power.<sup>17</sup> An independent construction supervision firm will monitor civil works.

19. Private partners will operate secondary school blocks under the SELD's EMO program, which was developed in 2015. Under the program, SELD selects private EMO operators through a competitive process. EMO operators are responsible for all aspects of school management and are paid based on performance. EMO-operated schools do not charge tuition fees. The GOS finances contracts with EMOs. The SELD may improve the EMO program, based on implementation experience.<sup>18</sup> The SELD may also update the education PPP framework, including by revising the governance of PPPs, strengthening the SELD PPP node, and streamlining EMO contracting.

<sup>13</sup> Government of Sindh. 2017. *Strategy Document, Sustainable Development Goal 4*. Karachi (draft).

<sup>14</sup> The design and monitoring framework is in Appendix 1.

<sup>15</sup> The districts are Badin, Matiari, Mirpur Khas, Sanghar, Sujawal, Tando Allah Yar, Tando M. Khan, Tharparkar, Thatta, and Umer Kot.

<sup>16</sup> These include multidimensional poverty index scores, Alif Ailaan district education rankings, female literacy rates, enrollment ratios, and teacher availability.

<sup>17</sup> The design and monitoring framework (Appendix 1) includes a list of gender-responsive features.

<sup>18</sup> Education Management Organizations Program (accessible from the list of linked documents in Appendix 2).

20. **Output 2: Teaching capacity in five key subjects improved.** This output will support the introduction of a teacher training and mentoring program aimed at improving the teaching of English, mathematics, biology, chemistry, and physics in selected SELD and SEF secondary schools. The project will (i) assess teacher availability and training requirements, (ii) develop teacher training modules, (iii) provide classroom training and in-class mentoring by subject specialist master trainers to about 2,630 teachers using information and communication technology, and (iv) provide laboratory equipment to some existing secondary schools. The SELD and the SEF will contract private providers to train and mentor teachers. The program will also build the capacity of selected Sindh teacher training institutes and the Sindh Provincial Institute of Teacher Education. It will incorporate gender-sensitive strategies such as the use of gender-bias-free lesson materials and gender-neutral language and classroom management techniques.

21. **Output 3: Secondary education examination system strengthened.** This output will support the development of a uniform examination syllabus and specifications for grades 9–12 for the Sindh boards of intermediate and secondary education (BISE). It will also support the redesign of the content of these examinations to increase their emphasis on critical thinking. Finally, the project will support the provision of optical mark recognition systems to improve the transparency, accuracy, and efficiency of examination grading. This assistance will be provided to all BISE in Sindh and will include the provision of hardware and software, and the development of the capacity of BISE examination assessors. About 400 BISE assessors will benefit from capacity development in item writing and exam development, while 85 BISE staff will benefit from training in optical mark recognition operation, data analysis and research.

#### D. Summary Cost Estimates and Financing Plan

22. The project is estimated to cost \$82.5 million (Table 1).

23. Detailed cost estimates by expenditure category and by financier are in the project administration manual (PAM).<sup>19</sup> The project cost includes physical and price contingencies and a GOS in-kind contribution of \$7.5 million that covers project implementation costs. ADB will finance taxes and duties and the salaries of PIU technical staff. Most spending is on civil works.

**Table 1: Summary Cost Estimates**  
(\$ million)

Item	Amount
<b>A. Base Cost</b>	
1. New secondary school blocks constructed, and operated under EMO program	58.63
2. Teaching capacity in five key subjects improved	9.99
3. Secondary education examination system strengthened	2.18
<b>Subtotal (A)</b>	<b>70.80</b>
<b>B. Contingencies</b>	<b>7.65</b>
<b>C. Financial Charges During Implementation</b>	<b>4.05</b>
<b>Total (A+B+C)</b>	<b>82.50</b>

Notes:

- Includes taxes and duties of \$9.37 million, of which \$8.77 million will be financed by ADB and \$0.60 million will be financed by the government.
- In 2019 prices as at January 2019.
- Government counterpart funding can be in cash or in-kind.
- Concessional OCR loan terms include: (i) 25-year maturity period, including a 5-year grace period; (ii) interest rate of 2% per annum during the 5-year grace period; (iii) interest rate of 2% during the amortization period; (iv) equal amortization for 20 years; and (v) no commitment fee.

Sources: Asian Development Bank estimates.

<sup>19</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

24. The government has requested a concessional loan of \$75 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period and thereafter; and such other terms and conditions set forth in the draft loan and project agreements. ADB will provide additional financing of \$75 million in 2022 or 2023, subject to satisfactory performance.

25. The summary financing plan is in Table 2. ADB will finance expenditures on civil works, furniture and equipment, consulting services, training, workshops, physical and price contingencies, and financial charges. The GOS has assured ADB that it will make up any shortfall in the finances required for the project.

**Table 2: Summary Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank		
Ordinary capital resources (concessional loan)	75.0	90.9
Government of Sindh	7.5	9.1
<b>Total</b>	<b>82.5</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

26. Climate mitigation is expected to cost \$0.35 million. ADB will finance 100% of that amount.<sup>20</sup>

## **E. Implementation Arrangements**

27. The project will be implemented over 6 years from January 2020 to December 2025. The SELD will be the executing agency. It will establish a dedicated independent PIU. Under the guidance of a project steering committee, the SELD will be responsible for project execution, with the PIU responsible for day-to-day project implementation. Procurement (including consulting services) will follow the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The implementation arrangements are summarized in Table 3 and described in the PAM (footnote 19).

**Table 3: Implementation Arrangements**

<b>Aspect</b>	<b>Arrangements</b>		
Implementation period	1 January 2020–31 December 2025		
Estimated loan completion date	31 December 2025		
Estimated loan closing date	30 June 2026		
<b>Management</b>			
(i) Oversight body	Project steering committee Chair, Planning and Development Board (chair) Secretary, School Education and Literacy Department (member) Secretary, Planning and Development Department (member) Secretary, Finance Department (member) Secretary, Universities and Boards Department (member) Director, PIU (member)		
(ii) Executing agency	School Education and Literacy Department		
(iii) Key implementing agencies	Dedicated independent PIU		
(iv) Implementation unit	35 staff (support staff included)		
Procurement	OCB works	22 contracts	\$40.35 million

<sup>20</sup> School blocks will be equipped with solar panels, rather than use grid electricity. The annual CO<sub>2</sub> reduction is estimated at 870 tons per year.

Aspect	Arrangements		
	OCB goods	4 contracts	\$11.60 million
	RFQ goods	3 contracts	\$0.22 million
Consulting services	QCBS	2 contracts	\$8.20 million
	RFQ, Non-consulting	1 contract	\$.05 million
	Individual Consultant (PIU staff)	10 contracts	\$1.75 million
	Individual Consultant	2 contracts	\$0.14 million
Retroactive financing and/or advance contracting	Advance action for recruitment of PIU staff, teacher training and assessment firm, architectural design and construction supervision firm and procurement of PIU equipment, furniture, and vehicles. Retroactive financing for key PIU positions; procurement of the architectural design and construction supervision firm; and PIU equipment, furniture, and vehicles.		
Disbursement <sup>a</sup>	The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, ICR = individual consultant recruitment, LCS = least-cost selection, OCB = open competitive bidding, PIU = project implementation unit, QCBS = quality and cost-based selection.

Source: Asian Development Bank.

28. The GOS requested ADB to approve advance action and retroactive financing. Advance action will cover the recruitment of key PIU staff, procurement of PIU equipment, furniture, and vehicles, recruitment of teacher training and assessment firm, and architectural design and construction supervision firm. Retroactive financing will cover (i) key PIU positions (project director, project manager, chief financial management specialist, chief procurement specialist, engineer, and administration unit head); (ii) PIU equipment, furniture, and vehicles; and (iii) the architectural design and construction supervision firm. Retroactive financing must be incurred within 12 months of the date of the loan agreement, with a ceiling of 20% of the ADB loan amount. Retroactive financing will be less than 1% of the loan amount. ADB advised the GOS that approval of advance action and retroactive financing does not commit ADB to finance the project.

### III. DUE DILIGENCE

#### A. Technical

29. The project will support the construction of secondary school blocks. These will have improved features compared with existing SELD secondary schools, including well-equipped laboratories, a combined library and digital classroom, drinking water, separate girls' and boys' toilets, and solar power. Schools will be run by EMOs, which can ensure the sustainable use of facilities and equipment. The teacher training program will provide equipment for science laboratories. BISE have the capacity to use and maintain the optical mark recognition systems. All facilities will meet or exceed national construction codes.

#### B. Economic and Financial

30. The project will generate substantial economic benefits as a result of (i) increased access to, and completion of, secondary education due to the construction of new secondary school blocks; and (ii) an increased wage premium for secondary school completers due to improved quality of education from the use of private managers for public schools, strengthened teaching and learning, and improvements to the design and administration of the Sindh public examination

system.<sup>21</sup> Expanded access to secondary education will lift the lifetime incomes of the increased number of students who complete secondary school, given the estimated rate of return of 7.3% for each additional year of schooling in Pakistan.<sup>22</sup> In addition to opening up access for more students, a larger proportion of students will complete grade 10 due to improved school facilities. Improved quality of secondary education will increase the wage premium by a modest amount for those who complete secondary school.

31. The project economic internal rate of return (EIRR) is estimated at 11.92%, indicating its economic viability. Improved secondary education can be expected to produce nonmonetary benefits such as reduced fertility, better health and nutrition, and reduced social unrest due to youth unemployment. A sensitivity analysis showed that the EIRR remains robust. The EIRR is not very sensitive to changes in the grade 10 completion rates but is somewhat sensitive to changes in the wage premium from better-quality education and the combined scenario where there is no change in completion rates and a lower wage premium increase. In all cases, the EIRR exceeds the required 6% rate for social sector projects.

32. The financial sustainability analysis highlights that the additional recurrent expenditures arising from the project are small relative to the GOS's current revenue expenditure, and provincial revenues are increasing faster than federal government transfers.<sup>23</sup> The maximum project-related loan repayment as a share of total GOS current revenue expenditures would be low (0.075% for FY2024 based on the GOS's current revenue expenditure forecast for FY2021).<sup>24</sup> The project's budgetary impact on the SELD's current revenue expenditures and the Universities and Boards Department would also be small, making this a fiscally sustainable investment.

### **C. Governance**

33. Financial management and procurement risk assessments were carried out. Key findings are in the risk assessment and risk management plan.<sup>25</sup> Although the SELD complies with government regulations, its procurement systems are weak due to limited capacity, weak processes and administration, and inadequate anticorruption measures. Procurement risk is *high*. Financial management staff are qualified, experienced, and familiar with development partner financial management procedures. There is a well-functioning financial management information system, and external audit by the Auditor General of Pakistan. The main weakness is the lack of familiarity with ADB procedures, which will be addressed through staff training. Financial management risk is moderate. Governance risk is moderate to substantial. To address these, the SELD will establish a dedicated independent PIU with qualified procurement and financial management staff. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the GOS and the SELD. The policy requirements and supplementary measures are described in the PAM (footnote 19).

### **D. Poverty, Social, and Gender**

34. By improving access and quality in Sindh secondary education, the project will help lift the incomes of those who obtain higher-quality secondary education. The project will be implemented

<sup>21</sup> Economic Analysis (accessible from the list of linked documents in Appendix 2).

<sup>22</sup> Z. Nasir and H. Nazli. 2000. *Education and Earnings in Pakistan*. Working Paper Series No. 177. Islamabad: Pakistan Institute of Development Economics.

<sup>23</sup> Financial Analysis (accessible from the list of linked documents in Appendix 2).

<sup>24</sup> FY2021 is the latest forecast available for the GOS's current revenue expenditure.

<sup>25</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

across Sindh, but some aspects will be focused largely on 10 districts with low scores in the Pakistan District Education Rankings 2016, which measures enrollments, learning, school retention, and gender parity.<sup>26</sup> The project will directly benefit girls by expanding their access to secondary education, thus promoting gender equality and narrowing gender disparities. The project is classified *gender equity theme*, which requires the preparation of a gender action plan (GAP) and hiring of a gender specialist to assist in GAP implementation and monitoring.<sup>27</sup> A detailed GAP has been prepared with measurable targets and indicators to ensure that women and girls benefit substantially from project investments. Key GAP actions include ensuring (i) school design is gender-responsive, (ii) barriers to school enrollment for girls are reduced, (iii) female participation in training is equitable, and (iv) the examination system is gender neutral.

## E. Safeguards

35. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are as follows.<sup>28</sup>

36. **Environment (category B).** As the location of subprojects will not be finalized until after the project is approved by the ADB Board of Directors, an environmental assessment and review framework was prepared in coordination with the SELD, consistent with ADB's Safeguard Policy Statement (2009). The framework was disclosed on ADB's website in July 2018. It provides guidance on subproject screening and categorization; assessment and planning; and public consultation, disclosure, and a grievance redress mechanism. ADB will review and approve environmental assessment and environmental planning documents before construction begins. The environmental impacts of subprojects will occur mostly during construction and are expected to be site-specific and unlikely to be irreversible. Adequate mitigation measures will be implemented through site-specific environmental management plans. The PIU's environmental safeguard capacity is low, so project consultants will train staff in environmental management. The project will not finance potential subprojects located in sensitive environments.

37. **Involuntary resettlement (category B).** The secondary school blocks will be constructed in school compounds with available land. However, school sites will only be finalized after the project is approved by ADB, based on agreed criteria and following the conduct of due diligence. It is uncertain whether there are third-party users of the land who may be affected. A resettlement framework has been prepared.<sup>29</sup> School sites will be screened and assessed following preparation of detailed school designs, based on criteria in the project's land acquisition and resettlement framework. Upon finalization of the detailed school designs, if affected people are identified, land acquisition and resettlement plans will be prepared, approved, and implemented prior to displacing affected people and commencing works. The project will not finance resettlement or land acquisition.

38. **Indigenous peoples (category C).** There are no sociocultural groups present in southern Sindh that may be considered tribes or indigenous communities as defined in ADB's Safeguard Policy Statement (2009).

<sup>26</sup> Alif Ailaan and Sustainable Development Policy Institute. 2016. *Alif Ailaan Pakistan District Education Rankings 2016*. Islamabad.

<sup>27</sup> ADB. 2012. *Guidelines for Gender Mainstreaming Categories of ADB Projects*. Manila.

<sup>28</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

<sup>29</sup> Land Acquisition and Resettlement Framework (accessible from the list of linked documents in Appendix 2).

## F. Summary of Risk Assessment and Risk Management Plan

39. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan (footnote 25). The benefits and impacts are expected to outweigh the costs.

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
Weaknesses in revenue mobilization, budget execution, treasury management, and financial reporting expose the PFM system to fiduciary risk.	Provide technical and policy support to address systemic PFM issues to strengthen the province's PFM system and procedures.
The SELD lacks an internal audit function.	SELD completes process of establishing internal audit unit covering PIU and project activities.
Weaknesses in procurement include lack of a SELD procurement unit and procurement documentation, limited use of electronic procurement systems, lack of contract management system, and weak enforcement of anticorruption laws.	Establish a project procurement unit with qualified staff and appropriate systems within the PIU. Request the SPPRA to make SELD a priority agency to address longer-term procurement issues.
Weak capacity of procurement staff and frequent transfer of staff cause procurement delays, reduced efficiency, and reduced credibility of the procurement process.	A project start-up consultant and Asian Development Bank staff will train PIU and SELD staff in procurement and consultant recruitment. Procurement professionals are available locally.
Absence of a streamlined procurement process, adequate internal controls, and effective grievance redress mechanisms lead to delays in procurement, and time and cost overruns.	Establish efficient and functional procurement process as part of project implementation, including strengthened internal controls and grievance redress mechanism.

PFM = public financial management, PIU = project implementation unit, SELD = School Education and Literacy Department, SPPRA = Sindh Public Procurement Regulatory Authority.

Source: Asian Development Bank.

## IV. ASSURANCES

40. The government and the SELD have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The government and the SELD have agreed with ADB on certain covenants for the project, which are set forth in the draft loan and project agreements. It is a condition for the withdrawal of loan proceeds to finance works that the project implementation unit shall have been adequately staffed in a manner mutually acceptable to ADB and the SELD.

## V. RECOMMENDATION

41. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$75,000,000 to the Islamic Republic of Pakistan for the Sindh Secondary Education Improvement Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 2.0% per year during the grace period and thereafter; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao  
President

2 October 2019

### DESIGN AND MONITORING FRAMEWORK

<b>Impact the Project is Aligned with</b>			
Inclusive and equitable quality education for all ensured (Sustainable Development Goal 4) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Inclusiveness of secondary education system in Sindh increased	By 2025: a. Proportion of females among secondary education enrollments in project districts increases to 38.0% (SY2016/17 baseline: 33.0%)  b. At least 80% of teachers, of which 50% female, pass a competency test in five key subjects (English, mathematics, biology, chemistry, and physics) (2019 baseline: None)	a. Annual Sindh school census data (source: SELD)  b. Special pre- and post-training competency tests for teachers trained and mentored in five key subjects (English, mathematics, biology, chemistry, and physics)	The government education strategy changes due to revisions in priorities in the new Sindh Education Sector Plan, 2019–2023.
<b>Outputs</b> 1. New secondary school blocks constructed, and operated under EMO program  2. Teaching capacity in five key subjects improved	1a. 100% of project secondary school blocks include gender-responsive features by 2024 (2019 baseline: None) <sup>b</sup>  1b. Proportion of secondary schools in Sindh with a (i) science laboratory increases to 30%, (ii) library increases to 20%, all by 2025 (SY2016/17 baselines: 22% for science laboratories, 12% for libraries)  1c. Updated education PPP framework, including revised PPP governance arrangements, strengthened PPP node, and streamlined EMO contracting process, approved by SELD by 2021 (2019 baseline: Not available)  2a. Teacher training and mentoring program in five key subjects (English, mathematics, biology, chemistry, and physics) developed, incorporating gender-sensitive strategies by 2021 (2019 baseline: None)	1a. Data from PIU  1b. Annual school census data (source: SELD)  1c. Government notification of updated education PPP framework  2a. Data from PIU	Increase in cost of materials beyond projections reduces the funds available for school construction.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Secondary education examination system strengthened	<p>3a. Newly developed uniform examination syllabus and specifications for grades 9–12 approved by Universities and Boards Department and BISE by 2020 (2019 baseline: None)</p> <p>3b. Optical mark recognition systems for grades 9–12 examinations adopted by Sindh BISE by 2022 (2018 baseline: No optical mark recognition systems)</p> <p>3c. At least 80% of BISE assessors, of which 40% are female, pass a competency test in item writing and examination development by 2022 (2019 baseline: None)</p>	<p>3a. Government notification of revised examination syllabus and specifications</p> <p>3b. Data from BISE</p> <p>3c. Special pre- and post-training competency tests</p>	
<p><b>Key Activities with Milestones</b></p> <p><b>1. New secondary school blocks constructed, and operated under education management organization program</b></p> <p>1.1 Finalize school site selection emphasizing schools that enroll girls (i.e., girls' or mixed schools) by Q1 2020.</p> <p>1.2 Approve detailed engineering designs for about 160 project secondary school blocks by Q2 2020.</p> <p>1.3 Complete construction of about 160 project secondary school blocks with solar panels in project districts by Q4 2024.</p> <p>1.4 Complete provision of furniture and equipment for classrooms, proportionate number of sex-segregated sanitation facilities, libraries, and laboratories for project secondary school blocks by Q1 2025.</p> <p>1.5 Put EMO contracts in place for all project secondary school blocks by Q2 2025.</p> <p><b>2. Teaching capacity in five key subjects improved</b></p> <p>2.1 Complete study on needs assessment and capacity of secondary school teachers in five key subjects by Q3 2020.</p> <p>2.2 Develop and pilot the new teacher training and mentoring program by Q1 2021.</p> <p>2.3 Provide equipment and teaching aids for existing schools based on the new teacher training and mentoring program by Q2 2021.</p> <p>2.4 Provide training and mentoring in five key subjects to teachers and to staff in selected teacher training institutes and the Sindh Provincial Institute of Teacher Education by Q2 2023.</p> <p><b>3. Secondary education examination system strengthened</b></p> <p>3.1 Develop uniform examination syllabus and specifications for grades 9–12 by Q4 2020.</p> <p>3.2 Procure and provide optical mark recognition systems to BISE by Q2 2021.</p> <p>3.3 Provide the new training to BISE and other relevant staff by Q4 2021.</p>			
<p><b>Project Management Activities</b></p> <p>Recruit key staff for dedicated independent PIU by Q4 2019.</p> <p>Advertise the teacher training and assessment firm by Q3 2019.</p> <p>Advertise the detailed architectural design and construction supervision firm by Q3 2019.</p> <p>Recruit the teacher training and assessment firm by Q1 2020.</p> <p>Recruit detailed architectural design and construction supervision firm by Q1 2020.</p> <p>Advertise all 10 civil works packages for the construction of about 160 secondary school blocks by Q3 2020.</p>			

<p>Advertise equipment for existing schools by Q1 2021 and equipment and furniture for 160 new schools by Q4 2021.</p> <p>Advertise optical mark recognition systems by Q1 2021.</p>
<p><b>Inputs</b></p> <p>ADB: \$75.0 million ordinary capital resources loan (concessional)</p> <p>Government of Sindh: \$7.5 million</p>
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable</p>

ADB = Asian Development Bank, BISE = Board of Intermediate and Secondary Education, EMO = education management organization, PIU = project implementation unit, PPP = public-private partnership, Q = quarter, SELD = School Education and Literacy Department.

<sup>a</sup> Government of Sindh. 2017. *Strategy Document, Sustainable Development Goal 4*. Karachi (draft).

<sup>b</sup> Gender-responsive design features include a sufficient number of separate male and female toilets in proportion to the size of the student population and equipped with working sanitation facilities and adequate water supply, separate female changing rooms, separate female faculty lounges, separate prayer rooms for females, well-lit rooms and corridors, and boundary walls.

Source: Asian Development Bank.

### **LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=51126-002-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Education
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Financial Analysis
8. Economic Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Risk Assessment and Risk Management Plan
12. Gender Action Plan
13. Environmental Assessment and Review Framework
14. Resettlement Framework

### **Supplementary Documents**

15. School Sector Governance in Sindh
16. The Education Management Organizations Program