



Project Concept Paper

Project Number: 52167-001
June 2020

Proposed Loan, Grant, Partial Credit Guarantee, and Transaction Technical Assistance Turkmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline Project (Phase 1)

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Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
AGE	–	Afghan Gas Enterprise
CPS	–	country partnership strategy
ECA	–	export credit agency
EPC	–	engineering, procurement and construction
FEED	–	front end engineering design
GAIL	–	GAIL (India) Limited
GPC	–	Galkynysh Pipeline Company
ISGS	–	Inter State Gas Systems (Private) Limited (Pakistan)
LNG	–	liquified natural gas
MSME	–	Micro, small and medium enterprise
PCG	–	partial credit guarantee
SPS	–	Safeguard Policy Statement
TAPI	–	Turkmenistan-Afghanistan-Pakistan-India
TPCL	–	TAPI Pipeline Company Limited
TRTA	–	transaction technical assistance
Turkmengaz	–	State Concern <<Turkmengas>>
TVEB	–	State Bank for Foreign Economic Affairs of Turkmenistan

NOTE

In this report, "\$" refers to United States dollars

Vice-President	Shixin Chen, Operations Group 1
Director General	Werner Liepach, Central and West Asia Department (CWRD)
Director	Ashok Bhargava, Energy Division (CWEN), CWRD
Team leader	Roland Pladet, Principal Finance Specialist, CWEN, CWRD
Team members	<p>Asad Aleem, Principal Energy Specialist, CWEN¹, CWRD</p> <p>Michael Beauchamp, Principal Social Development Specialist (Safeguards), Portfolio, Results, Safeguards and Gender Unit (CWOD-PSG), CWRD</p> <p>Serdar Charyyev, Senior Country Coordination Officer, Turkmenistan Resident Mission, CWRD</p> <p>David Elzinga, Senior Energy Specialist, Energy SG, Sustainable Development and Climate Change Department (SDCC)</p> <p>Luke Fochtman, Procurement Specialist, Procurement Division 1 (PPF1), Procurement, Portfolio and Financial Management Department (PPFD)</p> <p>Len George, Senior Energy Specialist, Energy Division, South Asia Department</p> <p>Glen Harris, Senior Procurement Specialist, PPF1, PPF1</p> <p>Kelly Hewitt, Principal Energy Specialist, CWEN, CWRD</p> <p>Alexander Jett, Senior Investment Specialist (Guarantees), Guarantees and Syndications Unit (OPSD-GSU), Private Sector Operations Department (PSOD)</p> <p>Dmitry Kabrelyan, Senior Public-Private Partnership Specialist, Office of the Director General, CWRD</p> <p>Tarang Khimasia, Principal Investment Specialist, OPSD-GSU, PSOD</p> <p>Ursula Lagan, Counsel, Office of the General Counsel (OGC)</p> <p>Duncan Lang, Senior Environment Specialist, Safeguards Division (SDSS), SDCC</p> <p>Catherine Marsh, Assistant General Counsel, OGC</p> <p>Akmal Nartayev, Senior Financial Management Specialist, PPFM, PPF1</p> <p>Irina Novikova, Senior Social Development Specialist (Safeguards), SDSS, SDCC</p> <p>Bart Raemaekers, Advisor, PSOD and Head, OPSD-GSU</p> <p>Patricia Rhee, Principal Counsel, OGC</p> <p>Francesco Ricciardi, Environmental Specialist, SDSS, SDCC</p> <p>Elena S. Roces, Project Analyst, CWEN, CWRD</p> <p>Mary Alice Rosero, Social Development Specialist (Gender and Development), CWOD-PSG, CWRD</p> <p>Syed Asim Ali Sabzwari, Environment Specialist, CWOD-PSG, CWRD</p> <p>Aida Satylganova, Social Development Specialist (Resettlement), CWOD-PSG, CWRD</p> <p>Yukihiro Shibuya, Social Development Specialist (Safeguards), CWOD-PSG², CWRD</p> <p>Michelle Tan, Associate Project Officer, CWEN, CWRD</p> <p>Noriza Torio, Operations Assistant, CWEN, CWRD</p>
Peer reviewer	Yongping Zhai, Chief of Energy Sector Group, SDCC

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¹ Outposted to the Pakistan Resident Mission

² Outposted to the Pakistan Resident Mission

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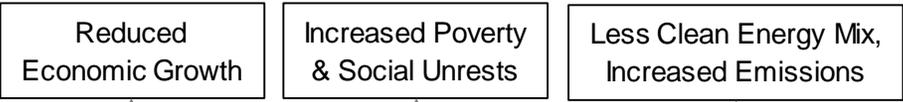
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PROJECT AT A GLANCE

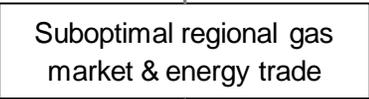
1. Basic Data		Project Number: 52167-001	
Project Name	TAPI Gas Pipeline Project (Phase 1)	Department/Division	CWRD/CWEN
Country	REG (AFG, PAK, TKM)	Executing Agency	Ministry of Finance (AFG), Ministry of Finance and Economy of Turkmenistan (TKM), Ministry of Finance, Revenue and Economic Affairs (PAK)
Borrower	Turkmenistan, Afghanistan, Pakistan		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=52167-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=52167-001-PortAtaGlance		
2. Sector		ADB Financing (\$ million)	
✓ Energy	Oil and gas transmission and distribution		1,000.00
		Total	1,000.00
3. Operational Priorities		Climate Change Information	
✓ Addressing remaining poverty and reducing inequalities		Climate Change impact on the Project	Medium
✓ Accelerating progress in gender equality			
✓ Strengthening governance and institutional capacity			
✓ Fostering regional cooperation and integration			
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 9.1		Some gender elements (SGE)	✓
		Poverty Targeting	
		Geographic Targeting	✓
4. Risk Categorization:	Complex		
5. Safeguard Categorization	Environment: A Involuntary Resettlement: A Indigenous Peoples: C		
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		1,000.00	
Sovereign Project (Grant): Asian Development Fund		100.00	
Sovereign Project (Regular Loan): Ordinary Capital Resources		400.00	
Sovereign Project (Partial Credit Guarantee): Ordinary Capital Resources		500.00	
Cofinancing		5,035.00	
Commercial lenders - project loan (PCG uncovered portion) (Not ADB Administered)		117.00	
Commercial lenders - project loan (Not ADB Administered)		95.00	
Commercial lenders - project loan (ICIEC insured) (Not ADB Administered)		300.00	
Commercial lenders - project loan (ECAs covered) (Not ADB Administered)		4,407.00	
India (via GAIL) - equity (Not ADB administered)		116.00	
Counterpart		1,707.00	
Turkmenistan (via Turkmengaz) - equity		1,675.00	
Afghanistan (via AGE) - equity		16.00	
Pakistan (via ISGS) - equity		16.00	
Total		7,742.00	
Currency of ADB Financing: US Dollar			

PROBLEM TREE

EFFECTS



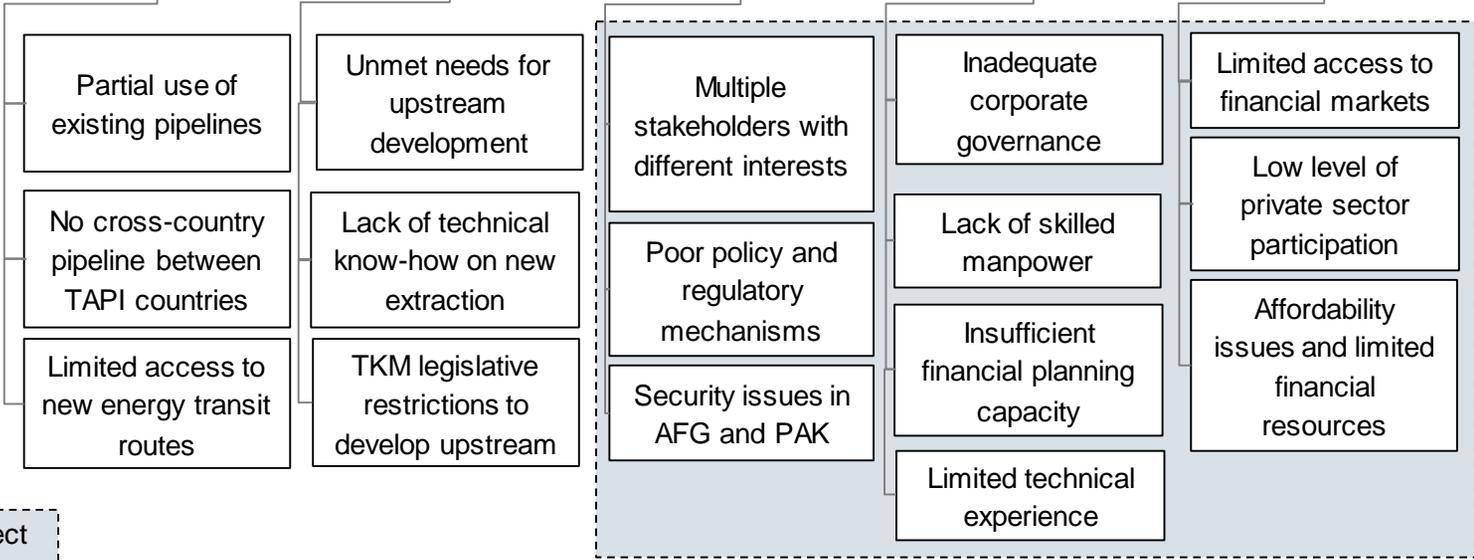
CORE PROBLEM



CAUSES



ROOT CAUSES



I. THE PROJECT

A. Rationale

1. The governments of Afghanistan, Pakistan and Turkmenistan have each requested the Asian Development Bank (ADB) financing support for phase 1 of the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline (the “project”)¹. In addition, the Government of Turkmenistan has requested ADB to provide a partial credit guarantee (PCG) in support to the project. The pipeline will extend approximately 1,600 kilometers (km), from the Turkmenistan-Afghanistan border to the Pakistan-India border. At full design capacity, the 56-inch TAPI pipeline can transport up to 33 billion cubic meters (bcm) of natural gas per year from Turkmenistan to Afghanistan, Pakistan, and India over a commercial operations period of 30 years.

2. Suboptimal regional gas and energy trade markets contribute to limited economic growth, increased poverty (possibly leading to social unrest) and exacerbated greenhouse gas emissions in the TAPI region. The project will considerably help improve regional energy trade, as it will build and support requisite natural gas supply and transportation capacity across the TAPI countries. Its realization will additionally help address several issues causing the suboptimal regional gas market by improving cross-border cooperation among multiple stakeholders, resolving some of the security issues in Afghanistan and Pakistan, as well as improving institutional capacity to implement complex projects. It will also attract and catalyze investments and financing that would otherwise be unavailable and, ultimately, help boost regional economic growth.

3. The project comprises the design, procurement, installation and operation of the pipeline and related facilities (without compressor stations in phase 1) within Afghanistan and Pakistan. Concurrently, State Concern <<Turkmengas>> (Turkmengaz) makes use of its own resources (including financing secured from the Islamic Development Bank) to implement within Turkmenistan: (i) the appropriation of a dedicated portion of the Galkynysh gas field; (ii) the installation of approximately 200 km of upstream pipeline connecting the Galkynysh gas field with the project at the Turkmenistan-Afghanistan border; and (iii) the construction of one or more compressor stations.² Similarly, GAIL (India) Limited (GAIL) will use its resources to implement within India the installation of approximately 10 km of downstream pipeline connecting the project at the Pakistan-India border with GAIL’s existing gas network terminus in Fazilka. Once phase 1 is completed, the project is expected to transmit annually about one third (i.e. 11 bcm of gas) of the TAPI pipeline’s design capacity (paragraph 9).³

4. Once operational, the TAPI pipeline will allow Turkmenistan to diversify and expand its gas export markets to the southeast, into Afghanistan, Pakistan, and India. The Central Asia Regional Economic Cooperation (CAREC) Program’s Strategy for Regional Cooperation in the Energy Sector has identified the TAPI Pipeline as one of the main links in the inter-energy relationship among CAREC countries. Overall, the TAPI pipeline will have a transformational impact on regional cooperation and will also support other initiatives aimed at increasing growth and economic stability in the region.⁴ The project is aligned with the development strategies of

¹ The Government of India through GAIL (India) Limited (GAIL) will use its own resources to finance the India section of the TAPI pipeline.

² The estimated cost of these upstream facilities in Turkmenistan amounts to approximately \$10 billion.

³ During phase 2, to be implemented after phase 1 is operational, six compressor stations would be constructed, so that the TAPI pipeline could then transmit its original design capacity of 33 bcm of gas per annum.

⁴ During the 10th Turkmenistan Gas Congress in Avaza and the 24th Oil & Gas Turkmenistan Conference in Ashgabat in May and October 2019, respectively, the United Nations (UN) Resident Coordinator stated that the UN considers gas pipeline projects transitional by helping countries to move away from their reliance on heavy fossil fuels (i.e. oil and coal) to renewable energy. Suitable projects would be those that: (i) result in reduced carbon emissions; (ii) achieve reduced costs of production and delivery; and (iii) contribute to inclusive economic growth. The UN

Turkmenistan, Afghanistan, Pakistan and India (TAPI), as reflected in their respective country partnership strategies, and is also consistent with the objectives of ADB's Strategy 2030. The project is included in the 2020-2022 country operations business plans (COBPs) for Turkmenistan, Afghanistan and Pakistan. The project's rationale for each of the TAPI countries is detailed in Appendix 2.

5. **Project background.** The TAPI pipeline has been under discussion for more than 20 years. In 2013, the governments of Afghanistan, India, Pakistan and Turkmenistan directed their respective state gas entities (hereinafter collectively referred to as the "TAPI Sponsors")⁵ to develop, and invest in, the TAPI pipeline. The TAPI Sponsors became the founding shareholders of the TAPI Pipeline Company Limited (TPCL) incorporated in the Isle of Man (United Kingdom) in 2014 and holding its main office in Dubai (United Arab Emirates) since 2016. TPCL's mandate is to develop, own, and operate the TAPI pipeline.

6. TPCL was initially established with each of the TAPI Sponsors holding a 25% share. In August 2015, the TAPI Steering Committee comprising responsible ministers of the TAPI countries endorsed Turkmengaz as the Consortium Leader of TPCL to spearhead efforts to develop, build, finance, and operate the TAPI pipeline. Subsequently, the TAPI Sponsors and TPCL signed the Shareholders Agreement in December 2015. Following Turkmengaz' incorporation of Galkynysh Pipeline Company (GPC) as a wholly-owned special purpose vehicle to hold its equity interest in TPCL in March 2016, the TAPI Sponsors, GPC and TPCL signed the Investment Agreement in April 2016. Through these agreements, it has been agreed that GPC will hold 85% of TPCL, and that the Afghan Gas Enterprise (AGE), Inter State Gas Systems (Private) Limited (ISGS), and GAIL each will hold 5%.

7. **Past ADB involvement.** In 2001, the Governments of Afghanistan, Pakistan and Turkmenistan requested ADB to act as the Secretariat for the Steering Committee of the proposed Turkmenistan-Afghanistan-Pakistan Natural Gas Pipeline. In March 2003, India was invited to join what became the TAPI Pipeline.⁶ In its capacity as Secretariat, ADB provided over \$4 million in technical assistance for various studies and facilitated the preparation, negotiation, and signing of key agreements: Inter-Governmental Agreement, Gas Pipeline Framework Agreement, Operations Agreement, and three Gas Sales and Purchase Agreements.

8. ADB was appointed Transaction Advisor by the TAPI Sponsors in November 2013. In this capacity, ADB helped to establish TPCL, facilitated the appointment of Turkmengaz as the Consortium Leader in 2015, managed the production of preliminary technical and financial feasibility studies in 2014-2015, and facilitated the negotiation and signing of the Shareholders Agreement and the Investment Agreement in 2015 and 2016, respectively. The signing of the Investment Agreement marked the successful completion of ADB's transaction advisory mandate.

9. **Two-phase approach.** In September 2017, TPCL informed ADB that it intended to implement the TAPI Pipeline in two phases, with financing for phase 1 to come from shareholders and export credit agency (ECA) supported debt financing backed by 100% sovereign guarantees

representative further indicated that the TAPI pipeline project, if implemented well, would without doubt help substitute oil and coal and contribute to the sustainable development in Afghanistan, Pakistan and India, while generating significant foreign exchange revenues for Turkmenistan. The UN representative also underscored the importance of establishing connectivity with local communities by providing jobs and ensuring that transit fees and development decisions will widely benefit such communities. Consequently, the UN representative recommended that governments, companies and civil society work together closely to ensure that the TAPI pipeline project will deliver in a sustainable manner on its promise to bring peace and stability to the region.

⁵ State Concern <<Turkmengaz>> (Turkmengaz), Afghan Gas Enterprise (AGE), Inter State Gas Systems (Private) Limited (ISGS) of Pakistan, GAIL.

⁶ Ministry of Mines and Petroleum, Islamic Republic of Afghanistan. Turkmenistan-Afghanistan-Pakistan-India (TAPI) Pipeline. <http://mom.gov.af/en/page/1378/shiberghan-gas-project>

from Turkmenistan.⁷ In phase 1, the 56-inch TAPI pipeline would be constructed with one compressor station in Turkmenistan, and without any other compressor station elsewhere along the pipeline. This would allow the collective delivery of approximately 11 bcm of gas per annum to Afghanistan, Pakistan, and India. In phase 2, which is to be implemented after phase 1 becomes operational, four and two compressor stations are to be installed in Afghanistan and Pakistan, respectively, enabling the TAPI pipeline to transmit 33 bcm of gas yearly as per its original design capacity.

10. **Present project status.** At the 25th TAPI Steering Committee Meeting in February 2018, it was agreed -in principle- that the TAPI pipeline would be implemented using a two-phase approach, subject to its commercial viability being established. TPCL recommended to the TAPI Steering Committee that the project (with an estimated total cost of \$7.7 billion) would be financed mainly by ECAs supported by pro-rata sovereign guarantees from each of the TAPI countries. Although the Steering Committee did not decide on this recommendation, it requested TPCL to provide its shareholders with all details necessary for them to conduct: (i) an analysis of the proposed two-phase approach; and (ii) internal discussions regarding the provision of sovereign guarantees. To potentially shorten the time toward the initial delivery of gas under phase 1, TPCL has commenced safeguards assessments required for the project and procurement activities for the supply of long lead items (pipeline, valves, etc.) and engineering, procurement and construction (EPC) contracts for construction of the pipeline. ADB's preliminary due diligence identified several critical issues in the TPCL that followed procurement processes that are particularly pertinent to the EPC contracts for Afghanistan. Following its discussions with ADB, TPCL agreed to re-procure these contracts.

B. Proposed Solutions

11. Following extensive interaction between ADB and TPCL and TPCL's willingness to re-procure the EPC contracts for Afghanistan, ADB has continued considering sovereign financing support for the project. This will help TPCL meet its financing needs and should encourage participation of other financing partners. For Turkmenistan, the project is consistent with the government's diversification priorities and aligned with the strategic objective of the country partnership strategy (CPS) to help the country become a key catalyst for regional cooperation and integration by supporting hydrocarbon market diversification and energy trade promotion. As for Afghanistan, the project supports Strategic Pillar 1 of the CPS by expanding energy trade and regional cooperation.⁸ For Pakistan, the project aligns with the priorities in the CPS, to provide reliable and affordable energy services through the development of additional energy resources.⁹ In the case of India, the project supports the priorities of the CPS by bringing about long-term energy security to meet the country's growing energy demand and by improving energy supply mix with a cleaner energy resource.

12. The project's expected main outputs are: (i) the completed and operationalized TAPI pipeline in Afghanistan and Pakistan transporting gas from Turkmenistan to Afghanistan, Pakistan and India; and (ii) increased numbers of supply chain businesses, including micro, small and medium enterprises (MSMEs), in selected districts of Afghanistan and Pakistan along the TAPI Pipeline route. These outputs will result in the following outcome: an expanded regional gas market.¹⁰ While also expected to boost economic activity, the project will have been aligned with the following impacts: (i) improved fiscal positions for Turkmenistan (through gas sales revenues),

⁷ ADB understands from TPCL that Turkmenistan is likely to seek back-to-back sovereign guarantees of 5% each from Afghanistan, Pakistan and India, respectively.

⁸ ADB. 2017. *Country Partnership Strategy for Afghanistan, 2017–2021—Achieving Inclusive Growth in a Fragile and Conflict-Affected Situation*. Manila.

⁹ ADB. 2015. *Country Partnership Strategy for Pakistan, 2015–2019*. Manila. Pakistan's new CPS 2020-2024 is under preparation.

¹⁰ The project's preliminary design and monitoring framework is in Appendix 1.

as well as for Afghanistan and Pakistan (through transit fees); (ii) regional integration and cooperation between Turkmenistan to Afghanistan, Pakistan, and India; and (iii) increased employment opportunities (including from the increase of MSMEs along the TAPI pipeline) in Afghanistan and Pakistan.

C. Proposed Financing Plans and Modality

13. The estimated total project cost (defined in paragraph 1) is \$7.7 billion. The indicative financing plan is set out in Table 1. TPCL has indicated that a debt-to-equity gearing ratio of 70/30 is likely to be accepted by potential financiers. On this basis, TPCL will have to raise up to \$5.4 billion in debt financing. Besides ECA backed financing, TPCL may have to source supplemental financing from other (commercial) financiers due to national content eligibility and risk absorbing capacity or appetite constraints. For example, ECAs of member countries of the Organization for Economic Cooperation and Development would typically require 15% minimum down-payment for ECA-supported contracts to be sourced from TPCL's own means and/or other (commercial) financiers.

14. ADB is considering the provision of \$300 million and \$100 million in loans from ADB's ordinary capital resources (OCR) to Turkmenistan and Pakistan, respectively, as well as a \$100 million grant to Afghanistan, out of which \$70 million are sourced from the Asian Development Fund (ADF) – special operations, and \$30 million from yet to be determined donor co-financing (collectively hereinafter referred to as "ADB Sovereign Financing"). The proceeds of the ADB Sovereign Financing will be made available to GPC (via Turkmengaz), AGE and ISGS to fund a portion of their respective equity contributions to TPCL.¹¹ Based on an estimated total project cost of \$7.7 billion, Turkmengaz (via GPC) will have to provide an additional \$1,675 million to contribute its remaining share in TPCL's equity. While AGE and ISGS will have to pay an additional \$16 million each for their remaining equity stakes in TPCL, GAIL's overall equity contribution to TPCL amounts to \$116 million. Equity contributions will probably be disbursed concurrently to maintain shareholding percentages at all times. Specific details will be determined later in accordance with the negotiated financing structure and terms as equity contributions may be made pro rata with debt or may need to be made upfront. No portion of the ADB Sovereign Financing may be disbursed unless all amounts of equity and debt required for the project have been fully committed and are available.

15. ADB is also considering the provision of a PCG covering up to \$500 million in loan principal amounts payable under a commercial loan to the State Bank for Foreign Economic Affairs of Turkmenistan (TVEB). Proceeds of such commercial loan of up to \$617 million are to be on-lent by TVEB to TPCL and backed by a sovereign counter-guarantee and indemnity agreement (CGIA) entered into by ADB and the Republic of Turkmenistan.¹² The PCG would help mobilize commercial financing that may not otherwise be available for the project. In order to achieve ADB's objective of obtaining leverage (lower ADB's guaranteed percentage), ADB will seek to supplement its cover with cover from third parties acceptable to project lenders. The exact risk participation amounts by third parties will be determined through consultations with the market.

¹¹ Proceeds of ADB's financing support are to be used solely for the re-procured EPC contract for Afghanistan

¹² PSOD's Guarantees and Syndication Unit will assist CWRD with the structuring, negotiation and execution of the PCG transaction, receiving formal recognition for its support in processing this PCG. Once executed, PSOD will also remain involved in the monitoring of the correct calculations and timely payment of the guarantee and commitment fees payable to ADB under the PCG, as well as in the handling of any potential demands made thereunder.

Table 1: Indicative Financing Plan

Source	Amount (\$ million)	Share of Total (%)
ADB ^a		
Ordinary capital resources (Regular loan to Turkmenistan)	300.0	3.9
Ordinary capital resources (Regular loan plus ADF grant to Pakistan) ^b	116.0	1.5
Special Funds resources (ADF grant to Afghanistan) ^c	116.0	1.5
Turkmengaz (via GPC) ^d	1,675.0	21.6
GAIL	116.0	1.5
Total Equity	2,323.0	30.0
ECAs covered loans	4,407.0	56.9
ADB Ordinary capital resources (PCG covered commercial loan to TVEB backed by CGIA) ^{a,e}	500.0	6.5
Direct loans/senior shareholder loans/risk participation/uncovered portion under ADB PCG	212.0	2.7
ICIEC insured loans	300.0	3.9
Total Debt	5,419.0	70.0
Total	7,742.0	100.0

ADB = Asian Development Bank, ADF = Asian Development Fund, AGE = Afghan Gas Enterprise, CGIA = counter-guarantee and indemnity agreement, ECA = Export Credit Agency, GAIL = GAIL (India) Limited, GPC = Galkynysh Pipeline Company, ICIEC = Islamic Corporation for the Insurance of Investment and Export Credit, ISGS = Inter State Gas Systems (Private) Limited, OCR = ordinary capital resources, PCG = partial credit guarantee, RCI = regional cooperation and integration, TPCL = TAPI Pipeline Company Limited, TVEB = State Bank for Foreign Economic Affairs of Turkmenistan

Note: All numbers are to be confirmed.

^a Proceeds of ADB financing instruments are solely applied to eligible expenditures under re-procured EPC contract for Afghanistan.

^b Breakdown of ADB resource allocation for Afghanistan is \$77 million (ADF RCI thematic pool) plus \$39 million (ADF) financing 100% of AGE's \$116 million equity investment in TPCL.

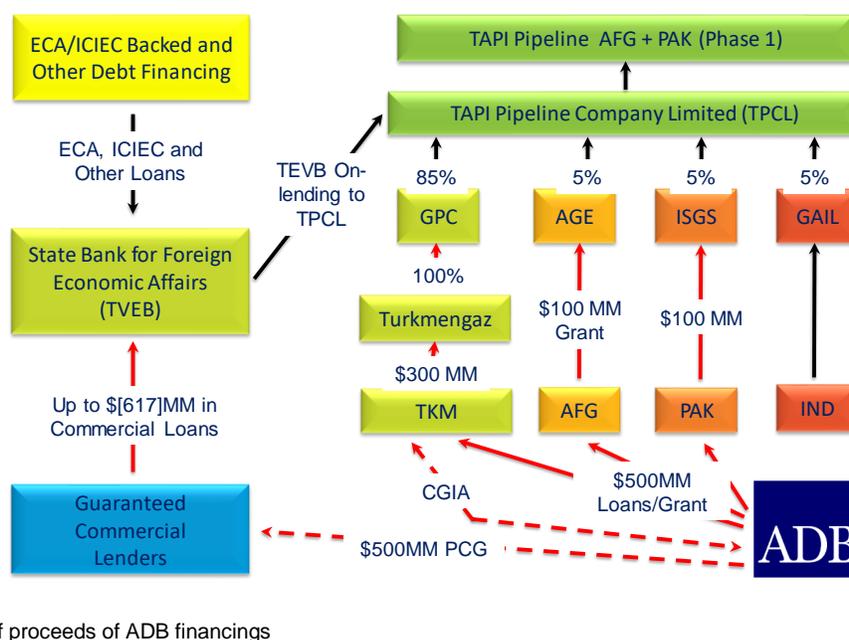
^c Breakdown of ADB resource allocation for Pakistan is \$87 million (OCR) plus \$29 million (ADF RCI thematic pool) financing 100% of ISGS' \$116 million equity investment in TPCL.

^d Financial contributions from these entities constitute their respective government's counterpart financing for the project.

^e Covering a commercial loan to TVEB to be on-lent to TPCL and backed by the CGIA between ADB and the Republic of Turkmenistan.

Source: Asian Development Bank.

16. The tentative funds flow arrangements are described in the below diagram:



ADB = Asian Development Bank, AFG = Afghanistan, AGE = Afghan Gas Enterprise, CGIA = counter-guarantee and indemnity agreement, ECA = export credit agencies, GAIL = GAIL (India) Limited, GPC = Galkynysh Pipeline Company, ICIEC = Islamic Corporation for the Insurance of Investment; ISGS = Inter State Gas Systems (Private) Limited, PAK = Pakistan, PCG = partial credit

guarantee, TVEB = State Bank for Foreign Economic Affairs; TKM = Turkmenistan, TPCL = TAPI Pipeline Company Limited, Turkmengaz = State Concern <<Turkmengaz>>

D. Implementation Arrangements

Table 2: Indicative Implementation Arrangements

Aspects	Arrangements
Indicative implementation period	October 2021 – September 2024
Indicative completion date	30 September 2024
Management	
(i) Executing agencies	Ministry of Finance and Economy of Turkmenistan, Ministry of Finance of Afghanistan, and Ministry of Finance, Revenue and Economic Affairs of Pakistan
(ii) Implementing agencies	State Bank for Foreign Economic Affairs of Turkmenistan, TAPI Pipeline Company Limited, Isle of Man (United Kingdom) (TPCL) and TPCL's subsidiaries in both Afghanistan and Pakistan

Source: Asian Development Bank.

17. TPCL will be responsible for all project implementation activities, including procurement and award and management of all supply, works, consulting services, and other contracts, as well as ensuring the safeguard requirements of the governments and financing agencies are complied with. A project agreement will be executed between ADB and TPCL (and possibly TVEB if required for PCG transaction purposes) under which TPCL will assume direct obligations to ADB to implement the project. The financing agreements between ADB and Turkmenistan, Afghanistan, and Pakistan, respectively, will include provisions requiring that their respective state owned gas entities (footnote 5), exercise their powers as (indirect) shareholders of TPCL, to ensure that TPCL: (i) implements the project in accordance with the project documentation (including financing agreements, project agreement, and safeguards documents); and (ii) undertakes any other actions required to facilitate project completion (including provision of approvals for project procurement and performing project oversight and monitoring).

II. PROJECT PREPARATION AND READINESS

18. **Design readiness.** The proposed transaction technical assistance (TRTA) of \$2.15 million will confirm project readiness in all aspects, review procedures and documents used by TPCL for the procurement of equipment and EPC contracts and assess the acceptability or otherwise of TPCL's safeguards studies. The TRTA report is in Appendix 3. Given that TPCL cannot provide detailed design for the project's EPC contracts until they have been awarded and the contractors have completed the detailed design of the project, additional resources will be necessary to monitor the project implementation activities during the construction period. Although this would typically be the responsibility of TPCL, ADB may consider providing some resources in order to secure effective oversight over these implementation activities during that period.

19. **Procurement readiness.** TPCL has commenced procurement activities for the EPC contracts for the construction of the pipeline in Afghanistan and Pakistan. Given the issues identified by ADB in the procurement process conducted by TPCL to date, TPCL has agreed to re-procure the EPC contract for the project sections in Afghanistan (paragraph 10). ADB continues its procurement due diligence process, while providing direct ADB support to TPCL during its re-procurement of the EPC contract for Afghanistan to help ensure that this contract will be compliant with ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). It is assumed that all contracts resulting from TPCL procurement activities will not be signed or become effective until all financing for the project, including from ADB, ECAs, and other financiers has been secured. Proceeds of ADB's financing instruments are solely applied to eligible expenditures under the re-procured EPC contract for Afghanistan. Subject to further assessment and

procurement process compliance with ADB requirements, including ADB's Core Procurement Principles and any other ADB requirements, retroactive ADB financing may be considered appropriate.

20. **Environmental Safeguards.** The project is classified as 'A' for environment due to significant land uptake, transboundary nature and crossing of key waterways and areas with high biodiversity value considered as critical habitat. Other impacts related with dust / air emissions, noise generation, occupational and community health and safety are also envisaged during project construction and operation phases. Hence, separate Environmental and Social Impact Assessment (ESIA) studies for Afghanistan and Pakistan sections of the pipeline will be prepared and disclosed on ADB website to comply with ADB's Safeguard Policy Statement (SPS)-2009. The requirements of other international finance institutions and the concerned national authorities will also be considered with ADB requirements being met at a minimum. In addition, meaningful stakeholder consultations will continue to be conducted and an environmental management plan (EMP) and biodiversity action plan (BAP) will be prepared as part of the ESIA studies. Moreover, security issues in Afghanistan and Pakistan (Balochistan) will be a key concern during pipeline construction and operation and will require careful resourcing and subsequent management. Furthermore, Galkynysh gas field upgrades required for the project, the planned 38-meter pipeline corridor, the 200 km upstream pipeline and compressor station(s) in Turkmenistan is considered as an associated facility as per SPS-2009 and would require preparation of necessary environmental due diligence report as may also be the case for the India section¹³.

21. Once constructed, the pipeline will be buried¹⁴ which means access should not be restricted along the pipeline and land use for agricultural activities may be able to continue, subject to a determination by the respective governments of the extent to which the pipeline right of way will be accessible.

22. **Social Safeguards.** Based on information provided by TPCL and its consultants, the project is classified as category A for involuntary resettlement (IR) impacts (due to significant land take, and consequent probable impacts on livelihoods). It is estimated that around 6,680 hectares (ha) of land (280 ha in Turkmenistan, 3,100 ha in Afghanistan, and 3,300 ha in Pakistan) will have to be permanently acquired for the pipeline, access roads and above-ground installations of which 688 (ha) in Afghanistan and 444 (ha) in Pakistan are considered as natural habitat. Around 2,600 ha of easements and 5,400 ha of temporarily leased land may also be required, although this should be fully reinstated following construction. It is estimated that approximately 7,730 people or 1,100 households (95 people in Turkmenistan, 1,450 people in Afghanistan, and 6,185 people in Pakistan) are within the 38-meter corridor who may be affected. Overall, it is highly probable that more than 200 persons may experience significant impacts. Hence, the project is classified as category A for IR.

23. Turkmenistan is an ethnically homogeneous state with Turkmens comprising 85% of the population. The provinces in Afghanistan where the pipeline crosses are mainly comprised of Pashtuns. Other major ethnic groups that include Tajik, Hazara, Uzbek and Baloch may also be present in the project area. The two provinces in Pakistan where the pipeline crosses are

¹³ The decision on whether to consider the Indian section an "Associated Facility" as per ADB's SPS is yet to be taken. This will be based on whether: (i) the approx. 10km section of the TAPI pipeline in India is viable and can exist without the ADB TAPI Phase 1 project (i.e. the approx. 1,600km TAPI pipeline from the Turkmenistan-Afghanistan border until the Pakistan-India border); and (ii) the approx. 10km section in India can deliver its goods and services without the TAPI Phase 1 Project. This two-pronged test needs to be supported by technical, financial and economic feasibility data and analysis to determine the viability and delivery of goods and services.

¹⁴ It is expected that approximately 99% of the TAPI pipeline will be underground, except for the above ground installations (e.g. block valve and offtake stations) and some crossings.

inhabited by Pashtuns and Baloch. None of these major groups and other ethnic groups along the corridor have been identified as indigenous peoples as defined by the Safeguard Policy Statement (SPS). At this stage, the project is classified as category C for impacts on indigenous peoples (IP).

24. TPCL is currently preparing environmental and social impact assessments, draft land acquisition and resettlement frameworks and plans, and stakeholder engagement plans for both Afghanistan and Pakistan in accordance with the SPS. In addition, an environmental assessment is being completed for the Turkmen section of the pipeline and a framework document will also be provided for implementation of a project-wide environmental and social management system during construction and operation. ADB is providing comments on the preparation of these documents. Additional technical assistance will be provided by ADB to monitor TPCL's implementation of the project's safeguards activities during the construction period

III. DELIBERATIVE AND DECISION-MAKING ITEMS

A. Risk Categorization

25. The project is categorized as complex due to (i) the total amount of ADB Sovereign Financing exceeding \$200 million; (ii) possible category A classification for both environmental and involuntary resettlement impacts; and (iii) absence of TPCL's track record in implementing a complex project of this nature.

B. Project Procurement Classification

26. The proposed project procurement classification is A (Appendix 2). TPCL has commenced procurement of long lead items and EPC contracts (paragraph 10). ADB will conduct due diligence on the procurement process, evaluation criteria, and the evaluations to ensure that procurement of the goods and services eligible for ADB financing has been undertaken in a manner consistent with ADB's Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time), including ADB's Core Procurement Principles.

C. Scope of Due Diligence

Table 3: Scope of Due Diligence

Due Diligence Outputs	To be undertaken by
Technical analysis (incl. hydraulic modelling, gas reserves and gas markets assessment, FEED and final detailed design due diligence)	TRTA
Development Coordination	ADB staff
Economic analysis	TRTA
Financial management assessment, financial evaluation, and financial analysis (incl. financial model audit and risk analysis)	TRTA
Gender analysis, collection of baseline data and gender action plan	TRTA
Legal due diligence ¹⁵	ADB staff
Safeguard screening and categorization results	ADB staff and TRTA
Safeguard documents on environment, involuntary resettlement, and/or indigenous peoples	ADB staff and TRTA
Summary poverty reduction and social strategy	ADB staff and TRTA
Project administration manual	ADB staff and TRTA
Risk assessment and management plan	ADB staff and TRTA
Climate change assessment	ADB staff
Security risk assessment	ADB staff
Procurement	ADB staff
IDD and AML/CFT checklists	ADB staff
Governance	ADB staff and TRTA
Sector Assessment	ADB staff and TRTA

ADB = Asian Development Bank, AML/CFT = anti-money laundering/combating the financing of terrorism, FEED = front-end engineering design, IDD = integrity due diligence, TRTA = transaction technical assistance.

Source: Asian Development Bank.

D. Processing Schedule and Sector Group's Participation

Table 4: Indicative Processing Schedule by Milestone^a

Milestones	Expected Completion Date
1. Inclusion in TKM, AFG and PAK COBPs 2020-2022	Dec 2019 ^b
2. PCP and TRTA approval	Apr 2020
3. Pricing committee clearance (for PCG)	Jul 2020
4. Consultants mobilization and services	May 2020-Jul 2020
5. Consultation / reconnaissance missions	Jun 2020-Oct 2020
6. Project documents received	Oct 2020
7. Loan / grant / guarantee fact finding mission	Nov 2020
8. ESIA Disclosure (120 days before ADB Board consideration)	Dec 2020
9. ADB Management review meeting	Feb 2021
10. Loan /grant / guarantee appraisal	Feb 2021-Mar 2021
11. Loan / grant / guarantee negotiations	Mar 2021
12. TPCL Board approval	Apr 2021
13. ADB Board consideration	May 2021
14. Loan / grant / guarantee signing	Jun 2021-Jul 2021
15. Loan / grant / guarantee effectiveness	Jul 2021-Sep 2021

ADB = Asian Development Bank; AFG = Afghanistan; COBP = country operations business plan, ESIA = environmental and social impact assessment; PCG = partial credit guarantee; PCP = project concept paper; PAK = Pakistan; TKM= Turkmenistan; TPCL = TAPI Pipeline Company Limited; TRTA = transaction technical assistance.

^a Expected completion dates will change depending on: (i) impact of global COVID-19 outbreak; and (ii) the information provided by TPCL, TAPI country counterparts and/or their state gas companies, progress/completion of: (i) re-procurement of the AFG engineering, procurement, and construction (EPC) contract; (ii) satisfactory due diligence ADB and others; (iii) bankable legal structure/agreements; and (iv) TPCL securing total financing for the project.

^b Requests from TKM and AFG received; PAK interest in the project had been confirmed in Aug 2019.

Source: Asian Development Bank estimates.

¹⁵ Legal due diligence will be on the basis of reliance on the due diligence conducted for lenders and that exercise is yet to commence.

E. Key Processing Issues and Mitigation Measures

Table 5: Issues, Approaches, and Mitigation Measures

Key Processing Issues	Proposed Approaches and/or Mitigation Measures
1. Security plan pending	TPCL to prioritize preparation of a security plan
2. Acquisition of land and land rights, and some involuntary resettlement, are required	TRTA to review and advise on TPCL's preparation of LARFs and LARPs for AFG and PAK, and associated facilities due diligence on acquisition of land and land rights and resettlement activities in TKM and IND
3. Desktop nature of the FEED - design-build approach	TRTA technical assessment; relevant provisions in the EPC contracts to allocate responsibilities and remedies for delays and cost overruns
4. PAK and IND seek to renegotiate their 2012 GSPAs (gas prices)	While timing and outcome is beyond the control of TPCL (and ADB), ADB understands that re-negotiations started
5. Project development and procurement capacity of TPCL	ADB support of the AFG EPC contract re-procurement to help ensure compliance with ADB policies and requirements
6. Optimistic timeline expectations	More realistic planning due to frequent ADB-TPCL interaction
7. Complex multi-country negotiations	ADB experience with similar negotiations (e.g., the GMS and CAREC programs) will be relevant
8. Potential cost escalation due to delays and contract variations	TRTA due diligence and related support
9. Gender classification SGE to be supported	TRTA related support combined with TPCL's plan to establish corporate social responsibility programs

AFG = Afghanistan, CAREC = Central Asia Regional Economic Cooperation, EPC= engineering, procurement and construction, FEED = front-end engineering design, GMS = Greater Mekong Sub region, GSPA = Gas Sales and Purchase Agreement, IND = India, LARF = land acquisition and resettlement framework, LARP = land acquisition and resettlement plan, PAK = Pakistan, TKM = Turkmenistan, TPCL = TAPI Pipeline Company Limited, TRTA = transaction technical assistance, SGE = some gender elements
Source: Asian Development Bank.

PRELIMINARY DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
<ul style="list-style-type: none"> • Improved fiscal position of TKM, AFG and PAK^{a,b,c} • Improved regional integration and cooperation between TKM to AFG, PAK and IND^d • Employment opportunities created in AFG and PAK^{b,c} 			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Regional gas market is expanded	1. Volume of annual gas transported to AFG of [0.6] bcma is achieved by [2024] (2020 baseline: 0) 2. Volume of annual gas transported to PAK of [5.2] bcma is achieved by [2024] (2020 baseline: 0) 3. Volume of annual gas transported to IND of [5.2] bcma is achieved by [2024] (2020 baseline: 0)	Quarterly construction progress reports by TPCL, project completion certificate by [TPCL] technical consultant	1. Delays in completion of associated upstream development projects in TKM 2. Oil-linked gas market prices weaker than projected 3. Challenging fiscal climate in TKM and PAK
Outputs 1. TAPI Pipeline in AFG and PAK completed and operationalized 2. Increased number of MSMEs in selected districts of Afghanistan and Pakistan along the TAPI Pipeline route	1. 1,600km of AFG and PAK sections of the TAPI Pipeline constructed by [2024] (2020 baseline: 0) 2. Gas is being delivered in accordance with contractual agreements. 3. At least X number of MSMEs, of which 30% are women-led participating in TAPI Pipeline economic activities as suppliers (2020 baseline: 0)	1. Quarterly construction progress reports by [TPCL], project completion certificate by [TPCL] technical consultant 2. TPCL reports 3. Progress reports by [TPCL] consultants	1. Cost overruns 2. Delays in project implementation 3. Unanticipated technical and geological challenges during construction 4. Unanticipated security issues in AFG and PAK 5. Safeguards related delays or non-compliance with ADB policies 6. Willingness to allow women participation in economic activities and training in AFG and PAK

<p>Key Activities with Milestones</p> <ol style="list-style-type: none"> 1.1. Security Plan in AFG is completed by (TBD) 1.2. Security Plan in PAK is completed by (TBD) 1.3. Project agreements are in place (GTAs, GSPAs, HCAs, TFAs, OA, PSRs, etc.) by (Q4 2020) 1.4. Financial close of ECA and other financing is achieved by (Q3 2021) 1.5. Construction of AFG section is completed by (2024) 1.6. Construction of PAK section is completed by (2024) 2.1. TPCL corporate and social responsibility plan is complete by (Q4 2020) 2.2. Number of MSMEs increased by (2025) <p>Project Management Activities</p> <p>Safeguards assessment and plans are completed by (TBD)</p>
<p>Inputs</p> <p>ADB \$300.0 million (regular OCR loan to TKM) \$100.0 million (regular OCR loan to PAK) \$70.0 million (ADF grant to AFG) \$30.0 million (external grant co-financing yet to be determined and administered by ADB) \$500.0 million (PCG to commercial lenders for up to \$617 million loan to TVEB on-lent to TPCL)</p> <p>Turkmengaz equity contribution to TPCL (via GPC): \$1,675.0 million AGE equity contribution to TPCL: \$16.0 million ISGS equity contribution to TPCL: \$16.0 million GAIL equity contribution to TPCL: \$116.0 million ECA Financing: \$4,407 million Direct loans / Senior shareholder loans: \$212.0 million ICIEC insured loans: \$300.0 million</p>
<p>Assumptions for Partner Financing</p> <p>To be determined</p> <p>Facilities in TKM and IND required for the project—specifically, any upgrades of the Galkynysh gas field, the 200 km pipeline and compressor station(s) in TKM, and the 10 km pipeline in IND—are in place and operational concurrently with the completion of the project.</p>

ADB = Asian Development Bank, ADF = Asian Development Fund, AFG = Afghanistan, AGE = Afghan Gas Enterprise, bcma = billion cubic meters per annum, ECA = export credit agencies, GAIL = Gail (India) Limited, GPC = Galkynysh Pipeline Company, GSPA = Gas Sales and Purchase Agreement, GTA = Gas Transportation Agreement, HCA = Host Country Agreement, IND = India, ICIEC = Islamic Corporation for the Insurance of Investment and Export Credit, ISGS = Inter State Gas Systems (Private) Limited, OA = Operations Agreement, OCR = ordinary capital resources, PAK = Pakistan, PCG = partial credit guarantee, MSME = micro, small and medium enterprises, PSR = pipeline system rules, TAPI = Turkmenistan-Afghanistan-Pakistan-India, TBD = to be determined, TVEB = State Bank for Foreign Economic Affairs of Turkmenistan, TFA = Transit Fee Agreement, TKM = Turkmenistan, TPCL = TAPI Pipeline Company Limited.

^a ADB. 2011. Government of Turkmenistan. *The National Strategy for Social and Economic Development for 2011–2030*. Unofficial Translation. Ashgabat. (Internal).

^b Government of Afghanistan. 2016. *Afghanistan National Peace and Development Framework (ANPDF)*, 2017 to 2021. Kabul.

^c Government of Pakistan, Planning Commission. 2014. *Pakistan 2025 — One Nation, One Vision*. Islamabad.

^d ADB. 2017. *CAREC 2030, Connecting the Region for Shared and Sustainable Development*. Manila.

Source: Asian Development Bank.

Project Rationale for TAPI Countries

1. **Turkmenistan.** Turkmenistan is the 12th largest natural gas producer in the world producing over 85 bcm/year¹⁸ with the fourth largest natural gas reserves, and the 10th largest oil producer in Asia and the Pacific.¹⁹ Natural gas and less significantly, oil, and oil-related products, consistently averaged close to 90% of Turkmenistan's annual exports for the period 2001–2015. However, the country's highly concentrated export basket and export markets have made growth susceptible to an adverse external environment, as has been the situation with the relatively low global hydrocarbon prices and a slowdown in the economies of the country's trading partners after mid-2014. In order to diversify its gas sector, the government of Turkmenistan is developing its petrochemical and fertilizer sectors. In 2018, for example, a 1.16 million tonnes urea plant was commissioned with a demand of 1 bcm of feedstock annually. The construction of the new Kiyarly (Gyyarly) Polymer Plant was also initiated in 2014 and commissioned in 2018, which, when at full capacity, is expected to have a feedstock requirement of up to 5 bcm per year.
2. The key challenge for Turkmenistan today is to achieve economic diversification. Revenues from gas sales rendered by the TAPI pipeline provide one of the opportunities to help achieve this by specifically helping monetize the country's gas (with potential future monetary savings available for investment in high value-added economic sectors). It will allow Turkmenistan to diversify its gas export markets: (i) potentially leading to an improved, more stable fiscal position through long-term offtake contracts with new gas purchasers; (ii) resulting in net financial benefits from gas sales revenues from Afghanistan, Pakistan, and India; (iii) generating local employment opportunities during construction and operation of the gas field, gas processing plant(s), compressor station(s), and pipeline within Turkmenistan; and (iv) potential use of gas sales revenues for the development of non-traditional sectors.
3. **Afghanistan.** While the security situation continues to shape Afghanistan's development trajectory and adversely affects all aspects of life in the country, the TAPI pipeline has the potential to unite warring factions and make the environment more secure, for example by designing and implementing community-based security, social and economic development plans. Once operational, will bring significant financial benefits from transit fees payable by Pakistan and India. It will also provide an improved and cleaner energy supply mix and bring much needed energy at competitive prices. In addition, by providing natural gas to further industrial development, local employment opportunities will be generated during construction and operation of the phase 1 pipeline (and the four compressor stations envisaged to be installed during phase 2), provide natural gas for additional industrial development. In addition, the country will benefit from the provision and upgrading of associated infrastructure (like access roads), de-mining along the pipeline route, and remote access to electric power.
4. **Pakistan.** The country has historically been dependent on indigenous production for its natural gas supply which is used in power (30%), industrial sector (36%), buildings (20%), transport (5%) and other (9%).²⁰⁻²¹ Although Pakistan has over 14 bcm/year of liquified natural gas (LNG) facilities to offset decreases in indigenous natural gas production, there are still current and projected gaps in supply. The government has developed plans to increase LNG,

¹⁸ Enerdata database accessed October 7, 2019

¹⁹ ADB. 2017. *Country Partnership Strategy: Turkmenistan, 2017–2021—Catalyzing Regional Cooperation and Integration, and Economic Diversification*. Manila.

²⁰ IEA Gas 2019 Analysis and forecast to 2024.

²¹ State of the Regulated Petroleum Industry 2017 -2018.

provide additional supply through the TAPI and other pipelines and work with the private sector to explore and develop further indigenous resources.

5. As load shedding is common and severe in Pakistan, power shortages are estimated to have reduced gross domestic product growth by at least 2% in recent years and are considered the major cause of the slowdown in large-scale manufacturing.²² The TAPI Pipeline will help to provide long-term energy security to meet the country's growing energy demand and mitigate Pakistan's increasing domestic gas supply deficit. It will improve the energy supply mix with cleaner energy resources, generate financial benefits from transit fees from India (more or less offsetting transit fees payable by Pakistan to Afghanistan), and create local employment opportunities during construction and operation of the phase 1 pipeline (and the two compressor stations envisaged to be installed during phase 2).
6. **India.** The strategy of the Government of India has been to expand the role of natural gas for electric power generation, fertilizer production, transport and household use.²³ Until 2004, India supplied demand for natural gas from indigenous production, but then began importing through LNG. The country does not have any cross-border pipelines for importing natural gas and currently depends on four LNG terminals with a total nameplate capacity of 47 bcm/year (although only 20-30 bcm/year is utilized due to pipeline connectivity and infrastructure). Since only 3% of the country's power is produced using cleaner natural gas (as opposed to 40% using coal), there is increased pressure to shift towards the use of natural gas for electricity generation. India is investing in additional LNG facilities, transmission infrastructure, city gas and transport-based utilization. Overall, strong demand for natural gas is expected as the country's generation capacity needs to keep pace with rapid economic growth, while constrained by financial difficulties faced by power utility companies. Once constructed, the pipeline could supply additional natural gas capacity to help meet India's energy needs.²⁴

²² ADB. 2015. *Country Partnership Strategy for Pakistan, 2015–2019 (Sector Assessment Summary: Energy)*. Manila.

²³ IEA Gas 2019 Analysis and forecast to 2024.

²⁴ ADB. 2017. *Country Partnership Strategy: India, 2018–2022—Accelerating Inclusive Economic Transformation*. Manila.

PROJECT PROCUREMENT CLASSIFICATION

Characteristic	Assessor's Rating:
Is the procurement environment risk for this project assessed to be <i>high</i> based on the country and sector and/or agency risk assessments?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Capacity of the IA to follow all required procurement procedures is not known and will need to be assessed as part of the ADB due diligence process.
Are multiple (typically more than three) and/or diverse executing agencies and/or implementing agencies envisaged during project implementation? Do they lack prior experience in implementation under an ADB-financed project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Three EAs and the IA are envisaged during project implementation.
Are multiple contract packages and/or complex and high-value contracts (compared with recent externally financed projects in the developing member country [DMC]) expected?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown The project is expected to include several high-value and complex supply and construction works contracts.
Does the project plan to use innovative contracts (public-private partnership, performance-based, design and build, operation and maintenance, etc.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown The project is expected to use several design and build contracts for the construction of the pipeline.
Are contracts distributed in more than three geographical locations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown The project is expected to have up to 9 construction sections contracted separately in different geographic locations.
Are there significant ongoing contractual and/or procurement issues under ADB (or other externally) financed projects? Has mis-procurement been declared in the DMC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mis-procurement cases have been reported in PAK and AFG in relation to compliance with specific procurement rules, but no integrity related cases have been reported.
Does the DMC have prolonged procurement lead times, experience implementation delays, or otherwise consistently fail to meet procurement time frames?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Considerable implementation delays have been experienced in recent AFG projects due to lack of capacity to plan and manage procurement.
Do executing and/or implementing agencies lack capacity to manage new and ongoing procurement? Have executing and/or implementing agencies requested ADB for procurement support under previous projects?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Neither the TKM EA nor the IA has ever executed a project of similar size and complexity internationally. Capacity of these agencies will need to be determined as part of the ADB due diligence process.
Regional department's overall recommendation (Ashok Bhargava)	
Overall project categorization recommended	<input checked="" type="checkbox"/> Category A <input type="checkbox"/> Category B
Project procurement risks are assessed as significant. PAK and AFG EAs have full familiarity with ADB procurement guidelines and procedures. However, procurement guidelines of TPCL and procurement process followed by TPCL will need to be assessed as part of the ADB due diligence process to determine if they are compliant with ADB requirements and Core Procurement Principles. Multiple high value contracts are expected to comprise innovative features. TPCL has already initiated the procurement process, including re-procurement of the EPC contracts in Afghanistan, and contracts eligibility for ADB financing will need to be assessed. Recommended project procurement classification is A.	
Procurement, Portfolio, and Financial Management Department's recommendation (Olivier Leonard)	

ADB = Asian Development Bank, AFG = Afghanistan, DMC = developing member country, EA= executing agency, EPC = engineering, procurement, and construction, IA = implementing agency, PAK = Pakistan, TKM = Turkmenistan, TPCL = TAPI Pipeline Company Limited.

Source: Asian Development Bank.

TECHNICAL ASSISTANCE FOR PROJECT PREPARATION

Project Number: 52167-002
Transaction Technical Assistance (TRTA)
June 2020

Preparing the TAPI Gas Pipeline Project (Phase 1)

INITIAL POVERTY AND SOCIAL ANALYSIS

Country:	Turkmenistan, Afghanistan, Pakistan	Project Title:	TAPI Gas Pipeline Project (Phase 1)
Lending/Financing Modality:	Project	Department/Division:	CWRD/CWOD

I. POVERTY IMPACT AND SOCIAL DIMENSIONS

A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy

The project is well-aligned with the development objectives of the Governments of Turkmenistan, Afghanistan, Pakistan, and India; and the strategic priorities of ADB with its focus on regional integration and its commitment to support the TAPI gas pipeline. The overarching goal of the Government of Turkmenistan's development program is to achieve sustainable economic growth and improve the population's living conditions. Among the key development objectives under the National Programme on Socio-Economic Development 2011-2030 are to diversify and expand export capacity of fuel and energy; and ensure rapid and improved integration of Turkmenistan into international economic sectors. These are consistent with ADB's CPS with Turkmenistan 2017–2021, which aims to support the government to become a key catalyst for regional cooperation and integration by diversifying its markets and repositioning the country as a trade and transit hub. A key priority under the CPS is supporting Turkmenistan in diversifying natural gas export markets through the TAPI gas pipeline project. The project will support diversification of gas exports from Turkmenistan and is thus well-aligned with the government's and ADB's objectives.

The project supports strategic pillar 1 of ADB's CPS for Afghanistan 2017-2021 (expanded access to economic opportunities, markets, and services), through expanding energy trade and regional cooperation. The CPS focuses on the priority sectors of transport, energy, and agriculture, with regional cooperation as a cross-cutting agenda. ADB's strategic priorities include support for the development of Afghanistan's potential as a cross-regional transit point for both transport and energy, with emphasis on the CAREC corridors and TAPI gas pipeline. These are aligned with ANPDF 2017-2020, with its emphasis on energy and infrastructure development, and regional integration as key development priorities. The project is well-aligned with the Government of Pakistan's priorities under Pakistan 2025: One Nation, One Vision, which focuses on poverty reduction and inclusive growth, infrastructure development, and regional cooperation and integration. These are also ADB's priorities, as reflected in its Midterm Review of Strategy 2020. Among the strategies under ADB's CPS for Pakistan 2015-2019, are promotion of reliable and affordable energy system, and regional integration, including support to the TAPI gas pipeline project. The project also supports pillar 1 of ADB's CPS for India, 2018-2022, that is, to boost economic competitiveness to create more and better jobs by expanding infrastructure networks for transport and energy along economic corridors.

B. Poverty Targeting

General intervention Individual or household (TI-H) Geographic (TI-G) Non-income MDGs (TI-M1, M2, etc.)

Supporting diversification of gas export markets in Turkmenistan, and improving energy supply in Afghanistan, Pakistan, and India, will significantly contribute to economic development and provide a sustainable basis for poverty reduction.

C. Poverty and Social Analysis

1. Key issues and potential beneficiaries.

Significant improvements in poverty reduction have been noted in the four countries, but substantial disparities persist, and a large proportion of the population are still living in poverty. India's poverty rate fell from 37.2% in FY2004 to 21.9% in FY2011, reducing the number of the absolute poor by 137 million. However, a growing gap between higher- and lower-income states remains a major concern. Inequality, as measured by the *Gini coefficient*, increased marginally from 0.27 in FY2004 to 0.28 in FY2011 in rural areas, and from 0.35 to 0.37 in urban areas. ^a Poverty rate in Pakistan significantly declined from 66.5% in 1987 to 14.7% during 2010–2011. Moreover, estimates of the Poverty Gap Index at \$1.25 (purchasing power parity) per day declined from 23.9% to 1.9% over the same period. While these figures imply that Pakistan has achieved significant reductions in poverty, the *Multidimensional Poverty Index* for Pakistan calculated with PDHS 2006–07 data estimate that a higher proportion of Pakistanis were poor (about 50%) than measured by income poverty (about 20%). Further, the percentage of children aged under 5 years who are stunted has not declined since the mid-1990s, suggesting that households have remained sufficiently poor, experiencing high levels of food insecurity that translates into chronic child undernutrition and/or malnutrition. ^b In Turkmenistan, while there is a dearth of available information on key indicators, ADB data from 2002 shows that the poverty incidence is among the lowest in transition

economies. However, the life expectancy of women (70 years) was lower than the global average, (73.4 years) in 2014, while the gender gap in life expectancy was 8.4 years, about twice the global average of 4.2 years. ^c In Afghanistan, poverty rate remained virtually unchanged during the period from 2007–2012. It is estimated to have increased from 36.5% in 2011–2012 to 39.1% in 2013–2014. About one-third of the population is food insecure, while inequality is evident in the urban–rural and provincial disparities in access to improved drinking water and improved sanitation, and in education enrollment. ^d Afghanistan also ranks among the lowest 5% in per capita energy consumption globally. ^e Limited access to water supply and sanitation infrastructure, and unreliable energy sources, are among the common concerns, especially in rural areas. This hinders growth and income opportunities and creates disparities in economic development. Meanwhile, Turkmenistan is a major producer of natural gas (12th-largest in the world) but needs to diversify its markets to enable the industry to contribute more to economic growth and sustain its programs on poverty reduction. ^f

2. Impact channels and expected systemic changes.

The project aims to improve regional gas allocation through construction and completion of pipelines in the TAPI area, specifically in the Afghanistan and Pakistan portions. These are expected to increase the volume of annual gas exports from Turkmenistan to Afghanistan, Pakistan, and India. Diversification of Turkmenistan's gas export markets will increase its gas sale revenues, resulting in increased gross domestic income, and consequently lead to economic growth. This will help sustain the government's poverty reduction programmes. Improved energy supply in Afghanistan, Pakistan, and India will allow the countries to meet the growing energy demand and domestic gas shortages, enhance the provision of basic services, and facilitate the growth of businesses and micro-enterprises that are dependent on electricity. The local population surrounding the project areas will benefit from employment opportunities during construction and operation of the pipeline and gas field.

3. Focus of (and resources allocated in) the TRTA or due diligence.

The TRTA will help review the social, poverty and gender impacts of previous ADB-supported energy projects in these countries to identify lessons learned and good practices. Issues to be reviewed during project design include ensuring equal opportunities for women in all project-related employment and identifying poor and vulnerable households' constraints in accessing electricity and in availing of energy-related services.

4. Specific analysis for policy-based lending. Not applicable.

II. GENDER AND DEVELOPMENT

1. What are the key gender issues in the sector and/or subsector that are likely to be relevant to this project or program?

Critical gender issues relevant to the sector and common to the countries are: (i) limited and/or unreliable energy supply severely affect women due to their household and family roles; and (ii) limited representation in the energy sector constraints their ability to participate in decision making on policies and programs relevant to energy. Intermittent electricity supply makes household tasks more arduous, leads to breakdown of electric appliances, and worsens women's time poverty. In Pakistan, about 90% of rural and 50% of urban households use biofuels as their main or supplementary source of energy for cooking, lighting, and operating appliances. Women are responsible for collecting, transporting, processing, and storing fuels. ^g Similarly, in India, a large proportion of households remain dependent on traditional biomass fuels, which take up much of female time and energy to collect. ^h In Afghanistan, the majority of the population uses multiple sources of electricity due to lack of constant access to, or high costs of, primary source of electricity. A survey in the Northern Afghanistan provinces of Nangarhar and Takhar showed that household tasks have been impeded by a lack of electricity/fuel. ⁱ All these mean more grueling tasks for women and less time for other productive activities as well as for leisure and self-improvement.

In the 4 countries, women's participation in the energy sector is extremely limited. In Turkmenistan, while data for women's employment in specific sectors are scarce, it is estimated that the share of women in the total labor force is at 42.6%, but this is concentrated in healthcare and social services, education, finance, and processing industries. ^j Among the countries in Central and West Asia, Afghanistan has the lowest female labor force participation at only 19.1% compared to 83.6% for men, closely followed by Pakistan at 24.3% for women and 82.2% for men. Afghan women work mostly in the informal sector, and about two-thirds of employed women work in agriculture. In Pakistan, women's employment is concentrated in agriculture and the service sector. Encouraging the entry of women in the energy sector and investing in capacity building of women experts in the field, are crucial interventions to ensure better participation in decision making and more gender-inclusiveness in the sector. The TRTA will conduct a gender analysis and assess opportunities to design project intervention, which will promote women employment and career development as part of capacity development. The project will also include measures to encourage women's employment in technical and other project related jobs, including entrepreneurial activities and participation in supply chains during construction work.

2. Does the proposed project or program have the potential to contribute to the promotion of gender equity and/or empowerment of women by providing women's access to and use of opportunities, services, resources, assets, and participation in decision making? Yes No

Women participation in consultation meetings will be encouraged to help identify measures that could encourage women's employment in technical and other project related jobs, including entrepreneurial activities during construction work and related to the Project supply chain. Further, consultations will include awareness raising activities on the possible risks of human trafficking and HIV/AIDS that may be brought about by influx of construction workers.

It is not expected that enough gender design elements can be incorporated that will directly address gender gaps. Efforts will be made during TRTA implementation to further identify potential positive impacts on women and include gender design features in the project via, for example, women's participation in the project supply chain activities. Another objective of the TRTA will be to identify and propose measures to encourage women's employment in technical and other project related jobs, including entrepreneurial activities during the construction phase. The TRTA will also seek to identify opportunities to integrate proactive gender measures to promote and support livelihood activities of women and woman-headed households, especially those who would be negatively impacted by the project activities due to resettlement and land acquisition.

3. Could the proposed project have an adverse impact on women and/or girls or widen gender inequality?
 Yes No

Influx of workers during civil works may increase risks of prostitution, HIV/AIDS, and human trafficking, which may affect young women/girls in the surrounding and neighboring communities. However, mitigation measures will be put in place to address these risks.

4. Indicate the intended gender mainstreaming category:
 GEN (gender equity) EGM (effective gender mainstreaming)
 SGE (some gender elements) NGE (no gender elements)

III. PARTICIPATION AND EMPOWERMENT

1. Who are the main stakeholders of the project, including beneficiaries and negatively affected people? Identify how they will participate in the project design?

The main stakeholders of the project would include local residents who will benefit from improved energy supply, central and local governments specifically in the energy sector in the 4 countries, civil society organizations, and the people to be affected by civil works, specifically in the communities surrounding the planned pipeline in Afghanistan and Pakistan. The potential primary beneficiaries of the project are citizens who will benefit from improved and reliable energy access, as well as the people in Turkmenistan who will benefit from increased revenues from gas exports. The affected groups and individuals will be consulted through focus group discussions and consultation meetings during project design.

2. How can the project contribute (in a systemic way) to engaging and empowering stakeholders and beneficiaries, particularly, the poor, vulnerable, and excluded groups? What issues in the project design require participation of the poor and excluded?

Meetings with stakeholders, including local governments, NGOs and community-based organizations, and consultations with local communities and/or affected people, will be conducted. Issues to be discussed include protection of communities from construction and environmental disturbances, and safety hazards to workers and the local people during construction works, including how to minimize risks of HIV/AIDS and human trafficking, and resettlement compensation of affected persons.

3. What are the key, active, and relevant CSOs in the project area? What is the level of CSO participation in the project design?

Information generation and sharing (M) Consultation (M) Collaboration Partnership

4. Are there issues during project design for which participation of the poor and excluded is important? What are they and how should they be addressed? Yes No

IV. SOCIAL SAFEGUARDS

- A. Involuntary Resettlement Category** A B C FI

1. Does the project have the potential to involve involuntary land acquisition resulting in physical and economic displacement? **Yes** No

It is estimated that the Project will need to permanently acquire more than 6,680,280 hectares (ha) of land (280 ha in Turkmenistan, 1,003,100 ha in Afghanistan, and 1,003,300 ha in Pakistan) for the pipeline, access roads and above-ground installations. Around 2,600 ha of easements and 5,400 ha of temporarily leased land may also be required. It is estimated that approximately 7,730 people or 1,100 households (95 people in Turkmenistan, 1,450 people in Afghanistan, and 6,185 people in Pakistan) are within the 38-meter corridor who

<p>may be affected by the project. Overall, it is highly probable that more than 200 persons may experience major impacts.</p> <p>2. What action plan is required to address involuntary resettlement as part of the TRTA or due diligence process?</p> <p><input checked="" type="checkbox"/> Resettlement plan <input checked="" type="checkbox"/> Resettlement framework <input type="checkbox"/> Social impact matrix</p> <p><input type="checkbox"/> Environmental and social management system arrangement <input type="checkbox"/> None</p> <p>Separate frameworks will be prepared for AFG and PAK and will be the basis of multiple resettlement and livelihood restoration plans</p>
<p>B. Indigenous Peoples Category <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI</p>
<p>1. Does the proposed project have the potential to directly or indirectly affect the dignity, human rights, livelihood systems, or culture of indigenous peoples? Yes <input checked="" type="checkbox"/> No</p> <p>2. Does it affect the territories or natural and cultural resources indigenous peoples own, use, occupy, or claim, as their ancestral domain? Yes <input checked="" type="checkbox"/> No</p> <p>Turkmenistan is an ethnically homogeneous state with Turkmen comprising 85% of the population. The provinces in Afghanistan where the pipeline crosses are mainly comprised of Pashtuns. Other major ethnic groups include Tajik, Hazara, Uzbek and Baloch. The two provinces in Pakistan where the pipeline crosses are inhabited by Pashtuns and Baloch. None of these major groups and other ethnic groups along the corridor have been identified as indigenous peoples as defined by SPS 2009.</p> <p>3. Will the project require broad community support of affected indigenous communities? Yes <input checked="" type="checkbox"/> No</p> <p>4. What action plan is required to address risks to indigenous peoples as part of the TRTA or due diligence process?</p> <p>Indigenous peoples plan <input type="checkbox"/> Indigenous peoples planning framework <input type="checkbox"/> Social impact matrix</p> <p><input type="checkbox"/> Environmental and social management system arrangement <input checked="" type="checkbox"/> None</p> <p>This will be rechecked during the TA, which will deliver a preliminary indigenous peoples assessment.</p>
<p style="text-align: center;">V. OTHER SOCIAL ISSUES AND RISKS</p>
<p>1. What other social issues and risks should be considered in the project design?</p> <p><input checked="" type="checkbox"/> Creating decent jobs and employment (L) <input checked="" type="checkbox"/> Adhering to core labor standards (L) <input type="checkbox"/> Labor retrenchment</p> <p><input checked="" type="checkbox"/> Spread of communicable diseases, including HIV/AIDS (L) <input checked="" type="checkbox"/> Increase in human trafficking (L)</p> <p><input type="checkbox"/> Affordability <input type="checkbox"/> Increase in unplanned migration <input type="checkbox"/> Increase in vulnerability to natural disasters</p> <p><input type="checkbox"/> Creating political instability <input type="checkbox"/> Creating internal social conflicts</p> <p><input type="checkbox"/> Others, please specify _____</p> <p>2. How are these additional social issues and risks going to be addressed in the project design?</p> <p>The project will include measures to ensure local communities have opportunities to be employed in construction and all other jobs to be generated by the project. Due diligence will be conducted during project design to ensure adherence to core labor standards. The project design will include measures to raise public awareness of the risks of HIV/AIDS and other sexually transmitted infections and human trafficking.</p>
<p style="text-align: center;">VI. TRTA OR DUE DILIGENCE RESOURCE REQUIREMENT</p>
<p>1. Do the terms of reference for the TRTA (or other due diligence) contain key information needed to be gathered during TRTA or due diligence process to better analyze (i) poverty and social impact, (ii) gender impact, (iii) participation dimensions, (iv) social safeguards, and (v) other social risks. Are the relevant specialists identified?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. What resources (e.g., consultants, survey budget, and workshop) are allocated for conducting poverty, social, and/or gender analysis, and participation plan during the TRTA or due diligence?</p> <p>Social and Environmental Specialists.</p>

ADB = Asian Development Bank, ANPDF = Afghanistan's National Peace and Development Framework, CAREC = Central Asia Regional Economic Cooperation, CPS = Country Partnership Strategy, CSO = civil society organization, PDHS = Pakistan Demographic and Health surveys, SPS 2009 = ADB's Safeguard Policy Statement (2009), TAPI = Turkmenistan-Afghanistan-Pakistan-India, TRTA = transaction technical assistance.

^a Asian Development Bank (ADB). 2017. *Country Partnership Strategy: India, 2018–2022—Accelerating Inclusive Economic Transformation*. Manila.

^{b,g} ADB. 2016. *Pakistan Country Gender Assessment*. Manila.

^{c,j} ADB. 2017. *Country Partnership Strategy: Turkmenistan, 2017–2021—Inclusive and Sustainable Growth Assessment*. Manila.

^d ADB. 2017. *Country Partnership Strategy: Afghanistan, 2017–2021—Achieving Inclusive Growth in a Fragile and Conflict-Affected Situation*. Manila.

^e ADB. 2017. *Country Partnership Strategy: Afghanistan, 2017–2021—Inclusive and Sustainable Growth Assessment*.

- ^f ADB. 2017. *Country Partnership Strategy: Turkmenistan, 2017–2021—Catalyzing Regional Cooperation and Integration, and Economic Diversification*. Manila.
- ^h ADB. 2013. *India: Country Gender Equality Diagnostic of Selected Sectors*. Manila.
- ⁱ ADB. 2015. *Technical Assistance Consultant’s Report—Afghanistan: Direct and Indirect Effects of Electrification to Women’s Lives and Gender Relations*. Manila.