In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.
<table>
<thead>
<tr>
<th>TA Number, Country, and Name:</th>
<th>Amount Approved: $1,500,000</th>
<th>Revised Amount: Not Applicable</th>
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<tr>
<td>TA 8083-REG : Turkmenistan–Afghanistan–Pakistan–India Natural Gas Pipeline Project, Phase 3</td>
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<td>Source of Funding:</td>
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<td>Asian Development Bank (ADB)</td>
<td>Regional Cooperation and Integration Fund: $1,500,000</td>
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<td>TA Approval Date:</td>
<td>TA Signing Date:</td>
<td>Fielding of First Consultant:</td>
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<td>Account Closing Date</td>
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**Description:**

The Turkmenistan–Afghanistan–Pakistan–India Natural Gas Pipeline Project ("TAPI" or "the Project") aims to export up to 33 billion cubic meters of natural gas per year through a proposed pipeline, approximately 1,800-kilometer long, from Turkmenistan to Afghanistan, Pakistan, and India. Estimated at $7.6 billion\(^1\), the Project will be operated by a special purpose consortium company (SPCC) to be led by a commercial entity (consortium lead). Representatives of the governments of Turkmenistan, Afghanistan, Pakistan, and India including state-owned gas companies of the participating countries comprise "the Parties" that have the option to invest in the SPCC.

TAPI will foster regional cooperation and economic growth through increased investments and trade by linking landlocked Turkmenistan to potentially huge markets such as Afghanistan, Pakistan, and India. It will also align the Parties' interests, which will help bring about regional stability and security.

ADB, the Project's secretariat since 2002, has been instrumental in facilitating and balancing the interests of the Parties. Implemented in four phases, TAPI Phase 1 was completed in December 2010 with the signing of the gas pipeline framework agreement, inter-government agreement, and heads of agreement relating to the gas sales and purchase agreement (GSPA). Phase 2 ended with the signing of the GSPA in 2012. ADB, apart from having organized 14 ministerial-level steering committee (SC) meetings and 16 technical working group (TWG) meetings, have also financed several feasibility studies and the drafting of agreements. The Parties again requested ADB to continue as secretariat in phase 3 for the SPCC consortium lead selection, establishing the SPCC, and finalizing operational agreements related to the GSPA. Pipeline construction may follow as part of phase 4.

ADB approved a Research and Development Technical Assistance to enable ADB continue its role in the facilitation of discussions and negotiations at both TWG and SC levels for GSPA-related agreements. The TA was to be implemented in 2 stages, with the first stage to finance organization of roadshows in four strategic locations in Asia, Europe, and North America. Subject to the successful completion of stage 1, the second stage would finance the finalization of GSPA-related agreements.

**Expected Impact, Outcome, and Output:**

Impact: Enhanced energy trading between Turkmenistan, Afghanistan, Pakistan, and India.

Outcome: Establishment and engagement of a natural gas pipeline consortium under a public–private partnership.

Output: Expected outputs for the assignment are Operations Agreement, Network Code, Consortium Agreement and Host Country Agreements; Project Investment Market Study Report detailing the requirements of prospective project developers, financiers, and insurers.

**Delivery of Inputs and Conduct of Activities:**

Adequacy of formulation. Technical assistance (TA) financing was adequate. TA was planned to be carried out for 25 months but was extended thrice for a total of 60 months. The Parties have requested ADB to continue to act as the secretariat even after the incorporation of the SPCC because the Parties consider that there are still government level relations that may need to be managed. Undisbursed amount accounts for unused contingency.

Terms of reference (ToR). The ToRs were comprehensive and consultant engagement was consistent with ADB’s Guidelines on the Use of Consultants. The consultants, international and national, were recruited individually as this method is simple, cost-effective, and more appropriate for the assignment.

Performance of TA consultant. An oil and gas expert was engaged to structure the road shows, coordinate the invitations, and ensure the participation of suitable prospective private investors. After the road shows, the consultant prepared a project investment market study report detailing the potential consortium leads, financiers, and prerequisites for participation; set out the merits and demerits; and make recommendations for a strategy to attract bidders and promote competition. A legal advisor was engaged to advice on the GSPA, gas pipeline framework

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\(^1\) Estimated in 2008.
agreement, heads of agreement, and inter government agreement. Several resource persons were engaged under the TA to advise on security, safeguards, and commercial, oil, and gas aspects during the road shows and subsequent TWG meetings. Two national consultants were recruited for stages 1 and 2 to provide: logistical, analytical and administrative support for the road shows and TWG and SC meetings. Overall, the TA consultants performed the services well while their deliverables met the required criteria as set forth in the contract. The consultants’ performance is rated satisfactory.

**Inputs of recipient and ADB.** The TA is the 6th ADB assistance for the Project, including TA 6066-REG in 2003, TA 6153-REG in 2007, TA 6409-REG in 2010, TA 7632-REG in 2011, TA 7756-REG in 2012, the total amount for all ADB TAs amount to $4.1 million. The Parties actively participated in TWG and SC meetings. Each party was adequately represented during those discussions. ADB diligently supported the Parties by conducting consultation missions, financing feasibility studies, and facilitating negotiations providing legal advice and serving as transaction advisor. The SC commended ADB for its effective role in the advancement of the Project.

**Changes made during implementation.** The TA completion date was originally planned on 30 June 2014 but was extended thrice, first until 30 June 2015, then until 30 June 2016, and lastly until 30 June 2017 to provide continued support in multiple SC discussions. In total, ADB facilitated 10 TWG meetings and 13 SC meetings for the entire duration of TAPI phase 3.

**Evaluation of Outputs and Achievement of Outcome:**

To determine what commercial entities require for participation in investment projects, roadshows were held between 10-20 September 2012 in Singapore, New York City, and London where meeting with prospective consortium leads and financiers resulted to the project gaining private investment grounds. Pipeline Project Information Packet were prepared and provided to potential financiers. Fourteen out of 51 invited companies participated in the roadshows.

After several TWG and an SC meeting, the Parties have obtained necessary approvals for the establishment of an SPCC that will design, build, own and operate the TAPI natural gas pipeline. A $5 million capital injection was also approved for each of the Parties to provide as initial investment into the SPCC. The Parties appointed ADB as Transaction Advisor to assist them with the establishment of SPCC. The Operations Agreement was signed in July 2014, after the 18th SC Meeting. TAPI Pipeline Company Limited (TPCL) was incorporated in November 2014 in the Isle of Man. The project office of TPCL has been established in Dubai.

The outputs stated in DMF were achieved, such as (i) signing of Operations Agreement in July 2014, (ii) SC’s endorsement of State Concern (“Turkmengaz”) as consortium lead during the 22nd SC meeting in Ashgabat in August 2015, (iii) the Parties agreement on the shareholding percentages as follows: Turkmengaz – 85%, Afghan Gas enterprise – 5%, Inter State Gas Systems (Pvt) Ltd – 5% and GAIL (India) Ltd – 5%, and (iv) signing of an investment agreement in April 2016. Preparation of network code and signing of host government agreements, on the other hand, are moved to phase 4 of the project where TPCL will take over the project preparation phase. The TA has been instrumental in helping the Parties to establish the TPCL, with ADB being a transaction advisor providing advice on the selection of country of domicile, completion of know-your-client process, and completion of necessary corporate requirements among others.

**Overall Assessment and Rating:**

With the SC’s unanimous endorsement of Turkmengaz as TPCL lead, the Project is substantially complete. Overall, the TA is rated ‘successful’ given its (i) relevance in facilitating at the negotiations and balancing the Parties’ interests, (ii) effectiveness in establishing the project company and signing most of the target agreements, and (iii) efficiency in holding timely roadshows and meetings.

**Major Lessons:**

The Project cost was estimated by ADB in 2008 at $7.6 billion, more than three times the 2002 estimate at $2.6 billion. Persistent delays and changes in technical designs have raised TAPI’s projected cost. While there have been signs of Project progress recently, it coincided with the emergence of alternative gas producers that may compete with Turkmenistan and a declining trend in energy demand globally. Hence, it can be inferred that time is of the essence in any energy development project on which validity of initial assumptions should be continuously updated from which project feasibility should be assessed.

**Recommendations and Follow-Up Actions:**

In the Turkmenistan Country Partnership Strategy 2017–2021, ADB will continue to develop TAPI natural gas pipeline, including possibility of providing advice for financial due diligence, fund raising strategy and related activities to financing close. ADB is in ongoing negotiations with TPCL for a fee-based financial advisory services agreement. ADB may also consider financing shareholder equity in TPCL held by government-linked shareholders, loans to TPCL, or credit enhancement of loans from commercial sources to TPCL.

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