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TAPI AND CASA-1000:
WIN-WIN TRADE BETWEEN
CENTRAL ASIA AND
SOUTH ASIA

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KEY POINTS

- Despite having large energy export capacity, Central Asia has been underperforming economically due to shortcomings in terms of access to export markets. In turn, South Asia has been failing in terms of both sustainable development and provision of citizens with public goods due to the energy shortages in the region. Such shortages have been due to population growth and increased economic activity, which have not always led to more efficient energy consumption. These situations could be turned into an opportunity if Central Asia and South Asia could enter into an energy deal that would benefit both regions. Currently two such projects exist in blueprint: the TAPI natural gas pipeline and the CASA-1000 electricity transmission line, slated to export gas from Turkmenistan, and electricity from Tajikistan and Kyrgyzstan, to India, Pakistan and Afghanistan, respectively.
- On a positive note, both projects rally vast international support and funding. Major regional players as well as international agencies such as the Asian Development Bank, the World Bank, the Islamic Development Bank, and the United States Agency for International Development are all pledged partners for TAPI and CASA-1000. Despite some delays in the past years, CASA-1000 is expected to begin operation in 2015, while TAPI is scheduled to ship gas by 2017.
- Despite significant international support, both projects face challenges that have already delayed their work for years. Analysts say lack of security is the main challenge to realizing the TAPI pipeline and to a lesser extent the CASA-1000 transmission line. Stakeholders fear that in the absence of security, such multi-billion dollar projects would be taken hostage by militants for ransom.



INTRODUCTION

Central Asia is among the richest regions of the world in terms of energy capacity. Kyrgyzstan and Tajikistan have large hydropower potential, while Kazakhstan, Turkmenistan and Uzbekistan are blessed with abundant fossil fuels. During Soviet times, the resources of the region and the rest of the Union were managed collectively. However, following the break-up of the Soviet Union, the Central Asian republics had to export their energy resources to markets outside Central Asia. Fossil fuel rich countries, especially Kazakhstan, have been able to export their energy resources outside the region. In contrast, Kyrgyzstan and Tajikistan have failed to secure major export markets for their summer energy surpluses. Turkmenistan which accounts for almost a tenth of all global natural gas in terms of known reserves has only about a two per cent share in the global production of natural gas.¹

In contrast to Central Asia, South Asia lacks energy due to its growing population, often increasing affluence and demand for economic expansion. The political changes in Afghanistan after the fall of the Taliban led to greater consumption as the foundations of an economy emerged there, while the biggest South Asian economies, India and Pakistan, require affordable and reliable energy to maintain their recent economic growth. At this juncture, the leaders of both the Central Asian and South Asian states have expressed interest in securing energy trade deals. South Asian countries specifically are interested in natural gas and electricity, goods that can be provided by neighboring Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. In line with these expectations, officials from both exporting and importing countries with the exception of Uzbekistan have met frequently and reached some agreements in the past years.

1 BP, BP Statistical Review of World Energy, June 2013: 20-22.

Considering an energy trade partnership both energy-rich Central Asia and energy-hungry South Asia would benefit. A natural gas pipeline and an electricity transmission line are logical steps in regional cooperation. These projects can provide cheap and reliable sources of energy for the South Asian economies; and on the other hand, generate much needed income for the Central Asian countries, fueling economic prosperity in the region as a whole. In reality, however, these promising projects face multiple challenges that have delayed their implementation for many years. This paper investigates developments surrounding both projects to the present day, then surveys the challenges they face and discusses the likelihood of implementing these projects in the medium term. Finally, the paper provides recommendations to realize them.

Given the scale of labor migration from Central Asian states, there is a clear need for more knowledge about the implications of this process for the societies of the above mentioned countries. This policy brief discusses the economic and social impacts of migration on the societies of Tajikistan, Kyrgyzstan, and Uzbekistan, and examines the new challenges faced by migrant workers and their families.



ENERGY TRADE OPPORTUNITIES

Remittances as a mechanism to address poverty

The Turkmenistan-Afghanistan-Pakistan-India (TAPI) or Trans-Afghanistan pipeline is a natural gas pipeline proposed to supply Turkmen gas to Afghanistan, Pakistan and India. The pipeline will have its source at the South Yolotan-Osman gas field in Turkmenistan, the second largest

gas field in the world,² and travel 1680 km via Afghanistan and Pakistan before reaching Fazilka in India.³ The pipeline is estimated to deliver 60 to 90 million cubic meters of natural gas per day, of which India and Pakistan will receive 42 per cent each, and Afghanistan will receive 15.5 per cent.⁴ As of 2008, the cost of the TAPI pipeline was estimated to be at least \$7.6 billion.⁵

The TAPI pipeline project dates back to 1995 when Turkmenistan and Pakistan signed a memorandum of understanding. The project even earned the consent of the repressive and isolationist Taliban regime governing Afghanistan at the time. In 1998, however, Unocal, the company expected to construct the pipeline, withdrew from the project citing the Taliban's widespread human rights abuses.⁶ As a result, the project was stopped until 2002 and the arrival of a new government in Afghanistan once US-led forces working in partnership with Afghanistan's Northern Alliance rebel network toppled the Taliban. During the following round of talks, Turkmenistan, Afghanistan and Pakistan asked the Asian Development Bank for a feasibility study which was completed in 2005 and updated in 2008. In the same year, India joined the project officially, expanding the pipeline's reach and opening up a potentially very profitable market for Turkmenistan. In addition to the project's participating countries, the United States has also supported the project for obvious reasons: to help secure the Afghan government, to undermine the planned Iran-

2 Orange, Richard, "Second largest gas field found in Turkmenistan," *The Telegraph*, May 25, 2011: <http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/8535672/Second-largest-gas-field-found-in-Turkmenistan.html>

3 Joshi, Madhura, "Turkmenistan-Afghanistan-Pakistan-India Pipeline: Possibility or Pipe Dream?," *Gateway House: Indian Council on Global Relations*, 2011: 9

4 Ibid.

5 ADB, "Historic Agreement Brings Long Awaited TAPI Pipeline Closer to Reality," May 23, 2012; <http://www.adb.org/news/historic-agreements-bring-long-awaited-tapi-pipeline-closer-reality>

6 PetroMin Pipeliner, "Turkmenistan-Afghanistan-Pakistan-India Gas Pipeline: South Asia's Key Project," February 2011; <http://www.pm-pipeliner.safan.com/mag/ppl0411/r06.pdf>

Pakistan (IP) natural gas pipeline, perhaps also to lessen Turkmenistan's dependency on Russian and now Chinese pipelines and China as a prime destination of Turkmen gas.

Central Asia South Asia electricity transmission project (CASA-1000) is an electricity transmission line that is expected to export between 1,000 and 1,300 MW hydropower electricity produced in Kyrgyzstan and Tajikistan to Pakistan and Afghanistan annually starting from 2015. The cost of electricity in Tajikistan and Kyrgyzstan is considered to be below the marginal cost in Pakistan and Afghanistan, providing a justifiable rationale to invest in the transmission line. The main drivers of CASA-1000 are: 1) both Tajikistan and Kyrgyzstan have surpluses of energy during summer, which otherwise would go to waste; and 2) Pakistan and to some extent Afghanistan face severe energy shortages.

An operational CASA-1000 will consist of 1,200 km of electricity transmission line and associated sub-stations that will total \$1.17 billion. The World Bank, the Islamic Development Bank, and the US Agency for International Development have pledged to finance this project.⁷ In 2011, a feasibility study of CASA-1000 by SNC-Lavalin International was submitted upon the request of the World Bank.⁸ The feasibility study confirmed: 1) current facilities generate sufficient summer surplus in both Tajikistan and Kyrgyzstan; 2) there is significant demand in Pakistan and Afghanistan respectively; and 3) the cost of electricity is justifiable when set against the cost of production of electricity in Pakistan and Afghanistan.

7 "World Bank Oks \$526.5m for CASA-1000," Pajhwok Afghan News, March 28, 2014: <http://www.pajhwok.com/en/2014/03/28/world-bank-oks-5265m-casa-1000>

8 "Central Asia – South Asia Electricity Transmission and Trade (CASA-1000) Project Feasibility Study Update," SNC-Lavalin International Inc., accessed July 31, 2014: [http://www.casa-1000.org/1\)Techno-EconomicFeasibilityStudy_MainRep_English.pdf](http://www.casa-1000.org/1)Techno-EconomicFeasibilityStudy_MainRep_English.pdf)

DEVELOPMENTS

CASA-1000 falls under the Central Asian Regional Economic Cooperation (CAREC) program, which is a partnership of ten countries supported by six international organizations.⁹ This programme focuses on promoting regional cooperation between Central Asian countries and their neighbours in different areas including energy. A Central Asia–South Asia energy corridor - CASA-1000 - is the first element of the CAREC Energy Work Plan.¹⁰ According to the 2013 progress report provided by CAREC, the CASA-1000 project's commercial structure has been finalized. However, power purchase agreements is expected to be signed in 2015.¹¹

According to the CAREC Work Plan, CASA-1000 is going to serve as the first phase of the Central Asia–South Asia Regional Electricity Market (CASAREM) development programme, which is expected to set the stage for greater energy trade between the two regions.¹² At this stage the following objectives have been accomplished with regards to the progress of CASA-1000: techno-economic feasibility study, environmental and social impact assessment, project development structure, and risk assessment for the project.

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- 9 Countries include: Afghanistan, Azerbaijan, the People's Republic of China, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. International organizations include: the Asian Development Bank, European Bank for Reconstruction and Development, International Monetary Fund, Islamic Development Bank, United Nations Development Program, and the World Bank.
 - 10 "Energy Sector Progress Report and Work Plan (October 2012 – September 2013)," Senior Officials' Meeting Central Asia Regional Economic Cooperation, 23 October 2013, Astana, Kazakhstan; http://www.carecprogram.org/uploads/events/2013/SOM-Oct-KAZ/002_104_206_Energy-Sector-Progress-report-and-Work-Plan.pdf
 - 11 Ghumman, Mushtaq, "CASA-1000: MA and PPAs to be inked next month," Business Recorder, March 25, 2015; <http://www.brecorder.com/market-data/stocks-a-bonds/0:1164669:casa-1000-ma-and-ppas-to-be-inked-next-month/>
 - 12 "Energy Sector Coordinating Committee Work Plan 2013-2015," Central Asia Regional Economic Cooperation Program, October 2012; <http://www.carecprogram.org/uploads/docs/CAREC-Energy-Sector-Coordinating-Committee-Work-Plan-2013-2015.pdf>

Currently, progress is being made on commercial agreements, and contracting an international project developer and operator. The implementation phase of CASA-1000 was planned to begin in 2014 and reach completion in 2015.

The TAPI pipeline's implementation has five phases. Phase 1 was completed in 2010 with the signing of the framework and inter-governmental agreements. Phase 2 was completed in 2012 with the signing of gas sales and purchase agreement (GSPA). Phase 3, which is the selection of a commercial entity to lead the special purpose consortium company (SPCC) is ongoing longer than anticipated i.e. to be completed in the end of 2014. Phase 4, the project preparation, is expected to be accomplished by 2015 with a number of agreements including the financial agreements of the project. Phase 5, the project implementation, should see the first shipments of gas reach partner countries by August 2017.¹³ Turkmen President Gurbanguly Berdymukhamedov affirmed that the TAPI pipeline's construction is going to start in 2015.¹⁴

CHALLENGES

When it comes to the implementation of these projects, TAPI and CASA-1000 face obstacles that have delayed their ground work for years and casted doubt over whether these ambitious projects will ever be realized. In brief, the main challenges for the implementation of the TAPI pipeline and CASA-1000 transmission line include security, scarcity of funds for implementation, diplomatic tensions between the participating countries, and alternative energy sources.

Insecurity has been labeled as the main challenge for the TAPI pipeline crossing Afghanistan, and to a lesser extent

13 Stroem, Rune, "Turkmenistan, Afghanistan, Pakistan, India (TAPI) Natural Gas Pipeline," Asian Development Bank, Eurasia Gas New Game Changers, June 5, 2014, Washington, DC, accessed July 26, 2014; http://csis.org/files/attachments/140606_TAPI_naturalgasPPT_0.pdf

14 Jafarova, Aynur, "TAPI pipeline's construction to start in 2015," Azernews, October 22, 2014; <http://www.azernews.az/region/72280.html>

Pakistan.¹⁵ The situation for CASA-1000 is different as it crosses safer Northern and Eastern Afghanistan. For the safety of the TAPI pipeline which journey across the less-secure Western and Southern parts of Afghanistan, the ex-Afghan Minister of Commerce and Industries Wahidullah Shahrani in 2011 announced the Afghan government's plan to deploy between 5,000 and 7,000 security personnel dedicated to protect the pipeline¹⁶; but due to a lack of trust in Afghan Police to protect the pipeline, it is feared that the pipeline would become a "cash cow" for insurgents.¹⁷ Considering the high cost of constructing the pipeline, the risk of this project failing is significant for all parties.

Responses to a nation-wide annual perception survey funded by The Asia Foundation for years 2011 through 2014 revealed that the 'Presence of foreign troops/international community' is the primary reason Afghans think that the armed anti-government groups such as the Taliban fight against the Afghan government.^{18, 19, 20, 21}

Another important finding of this research is that rebel groups such as the Taliban do not necessarily aspire to destroy strategic infrastructure. In Helmand province, a very insecure province, which the TAPI pipeline will traverse, a dam is located that plays an important role in local agriculture and electricity generation. The dam has not been a target for insurgent groups, however, due to its contribution to local

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- 15 Siddique, Abubakar, "Hurdles Remain for TAPI Gas Project," Radio Free Europe Radio Liberty, May 23, 2012; <http://www.rferl.org/content/hurdles-for-tapi-pipeline-project/24590971.html>
- 16 D'Souza, Shanthie Mariet, "The TAPI Pipeline: A Recipe for Peace or Instability?," ISAS Brief 194 (2011): 3
- 17 Ibid., 4
- 18 Mohammad Osman Tari et al., *Afghanistan in 2011: A Survey of the Afghan People*, (Kabul: The Asia Foundation, and AINA Media, 2011), 47.
- 19 Mohammad Osman Tari et al., *Afghanistan in 2012: A Survey of the Afghan People*, (Kabul: The Asia Foundation, and AINA Media, 2012), 56.
- 20 Keith Shawe et al. *Afghanistan in 2013: A Survey of the Afghan People*, (Kabul: The Asia Foundation, and AINA, 2013), 202.
- 21 Zachery Warren et al. *Afghanistan in 2014: A Survey of the Afghan People*, (Kabul: The Asia Foundation, and AINA, 2014), 47

communities they seek support from.²² An Oxfam research report concludes that ignoring communities and tribes have made equal and regrettable contributions to the failure of reaching peace in Afghanistan.²³ There are reports of cases where local communities have geared up and forced out insurgent groups in order to bring peace and security to their area.²⁴ The involvement of local communities living along the route, as CASA-1000 claims, demonstrates good practice for large projects such as the TAPI pipeline.²⁵

At this stage, **funding to implement** the projects is an issue that is almost resolved. CASA-1000 recently received US\$526.5 million from the World Bank Group, while the Islamic Development Bank and the US Agency for International Development have committed to finance the rest of the US\$1.17 billion cost of the project.²⁶ CASA-1000 is expected to utilize the existing electricity grid in Afghanistan as well as building new transmission lines and substations. The TAPI pipeline's estimated cost in 2007 was US\$7.6 billion, which has since become \$12 billion, according to some sources. Security fears are the main reason for cost inflation.²⁷ This pipeline has the support of many international donor agencies notably the Asian Development Bank that have pledged to generate funds for

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- 22 Central Asia Newswire, "Why the TAPI pipeline will not work," accessed June 28, 2013; <http://www.universalnewswires.com/centralasia/viewstory.aspx?id=12154>
 - 23 Waldman, Matt. "Community Peacebuilding in Afghanistan." Oxfam International (2008): 28.
 - 24 Gall, Carlotta, "Afghan Villagers Take On Taliban in Their Heartland," The New York Times, March 20, 2013; <http://www.nytimes.com/2013/03/21/world/asia/afghan-villages-rise-up-against-taliban.html?pagewanted=all&r=1&>
 - 25 Casa-1000, "Community Benefits," accessed June 28, 2014; <http://www.casa-1000.org/MainPages/Benefits.php>
 - 26 The World Bank, "World Bank Group Invests in Energy Trade between Central Asia and South Asia," Press Release, March 27, 2014; <http://www.worldbank.org/en/news/press-release/2014/03/27/world-bank-group-invests-energy-trade-between-central-asia-south-asia>
 - 27 Petersen, Alexander, "TAPI pipeline: Bigger is not better," Foreign Policy, June 12, 2012; http://afpak.foreignpolicy.com/posts/2012/06/12/tapi_pipeline_bigger_is_not_better

the project.²⁸

Diplomatic tensions also have the potential to impede the progress of the TAPI pipeline and to a lesser extent the CASA-1000. Rivalry between India and Pakistan is the biggest diplomatic obstacle, and the recent clashes at the de facto border between the two countries in Kashmir have offered a glimpse of a volatile relationship that threatens to undermine cross-regional cooperation.²⁹ Diplomatic tensions between Afghanistan and Pakistan could also pose a threat, as the two countries have been exchanging sporadic cross-border shelling and diplomatic tit-for-tat in recent years.

The relationship between the three South Asian countries has been very dynamic throughout their modern history due to a mix of reasons such as religion, race, sects and the colonial past, which has shaped the boundaries of these countries. Further complicating relations between the three states, many believe that India and Pakistan have been using neutral Afghanistan as a battleground for their own rivalry, thus fuelling insecurity in the region.³⁰ In this scenario, cooperation between India and Pakistan is very important for the success of the TAPI pipeline. Thus, the viability of the India-Pakistan partnership remains one of the main factors that will determine the success or failure of the TAPI project.

In addition to TAPI, Pakistan has also sought a deal on gas imports from Iran. This potential link might be less complicated and thus more advantageous for Pakistan than TAPI, although international sanctions against Iran have slowed progress here, too. Another factor, which favors

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- 28 Bhutta, Zafar, "Meeting in Ashgabat: ADB to generate \$7.5bn for financing TAPI gas pipeline," *The Express Tribune*, June 20, 2013; <http://tribune.com.pk/story/566032/meeting-in-ashgabat-adb-to-generate-7-5b-for-financing-tapi-gas-pipeline/>
- 29 Bukhari, Fayaz, "Five more civilians killed in worst India-Pakistan fighting for years," *Reuters*, October 8, 2014; <http://in.reuters.com/article/2014/10/08/india-pakistan-kashmir-firing-idINKCNOHXOET20141008>
- 30 Dalrymple, William, "A Deadly Triangle: Afghanistan, Pakistan, and India," *The Brookings Essay*, June 25, 2013; http://www.brookings.edu/research/essays/2013/deadly-triangle-afghanistan-pakistan-india-d?utm_expid=23328448-5&utm_referrer=https%3A%2F%2Fwww.google.com%2F

the implementation of TAPI over the bilateral Iran-Pakistan link is Saudi influence in Pakistan: Riyadh has been pouring money into Pakistan recently, apparently in an attempt to subvert Tehran's economic and political movements in the country. At this point of time, Riyadh's effort seems to have succeeded.³¹

CONCLUSIONS

On the surface, Central Asia and South Asia are a perfect fit: South Asians need energy to expand their economies; Central Asians have energy to sell and need to expand and diversify their revenue streams. So far, however, Central Asia - South Asia cooperation has been stunted, partly due to the Central Asian countries shunning closer ties with Afghanistan due to their fears that Islamic radicalism will spread to their countries. But in the cases of TAPI and CASA-1000, there seems to be genuine interest among Central Asian states: both CASA-1000 and TAPI have received international support and funding, and tangible progress has been made in implementing both projects.

Clearly insecurity remains a significant impediment in any project involving Afghanistan and Pakistan. It is especially difficult to predict the future environment in South Asia with Afghanistan now entering another transition under a new government and the withdrawal of foreign forces from this country. Recent tensions that stirred diplomatic relations between the South Asian countries, although not new, are still important reminders of the challenges these projects face in becoming a success.

Considering the genuine interest of all participating countries and support from international donors, the TAPI pipeline and CASA-1000 transmission line are only a small step away

31 Fazl-e-Haider, Syed, "Saudi grant kills Iran-Pakistan pipeline," Asia Times, March 21, 2014; http://www.atimes.com/atimes/South_Asia/SOU-02-210314.html

from reality. Future progress depends much more on the operational safety of the projects than on agreed-upon technicalities, meaning their feasibility is linked to holistic improvements in the security situations of Afghanistan and Pakistan. Despite the international and local resources deployed to achieve peace, insecurity still remains an evident threat, especially in Afghanistan. Therefore, in addition to dispatching security personnel to safeguard the projects, good practices such as the involvement of local communities as beneficiaries of the projects is highly advisable, especially for TAPI, which cuts through insecure areas in Afghanistan, where there is limited government presence.

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