Afghanistan

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The Problem in its Historical Context

Afghanistan once occupied a coveted place at the center of the world's richest pathways to prosperity and civilization. This historic and geopolitical role was well established over two thousand years ago. Afghanistan was then at the center of the global exchange of ideas, art and culture, and of long-distance trade, as it was located between China and India in the East and a fast growing Europe in the West. The flow of trade, artisans, techniques, tools and innovations along the legendary Silk Road, allowed the flourishing of ideas and the growth of the great ancient cities of Central Asia, enabling them to spread their influence far beyond the region.

Following the past quarter-century of turmoil, war and instability, Afghanistan is working to rebuild a secure environment for its people and to re-establish a new Silk Road. The hope and potential for these new silk roads is that they will allow Central Asia once more to interact with South Asia, China and the Far East and to re-engage with Europe and beyond.

Economic Conditions for Trade in Afghanistan and the Region

The United Nations classifies Afghanistan as a "least developed country" with some of the world's lowest rankings in basic development indicators. Afghanistan's economy and physical infrastructure has been devastated. The damaging impact of the Soviet invasion and occupation, the ensuing civil war, and the brutally repressive Taliban regime all contributed to the underdevelopment of the country.

Since the ousting of the Taliban, Afghanistan, with the help of the international community, has made significant progress on many fronts

including enacting a constitution, holding elections, building its institutions, and reviving education and health services. Since the fall of the Taliban in 2001, there has been keen interest in developing Afghanistan as a potential regional partner for trade and security in Central Asia.

International donors and their Afghan partners have produced strategies to improve old transit routes and to create new roads connecting Afghanistan to its neighbors. This will allow Central Asian countries to connect with Pakistan and India, and China to connect with Iran and beyond, all with Afghanistan as the central landbridge between them. These strategies have the potential of creating significant economic growth and at the same time contributing greatly to the establishment of peace and security throughout the region.

For the purpose of this paper all references to "Greater Central Asia" should be understood to include Afghanistan, India, Iran, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. The inclusion of Pakistan and Iran is essential because of their proximity and territorial ties but the inclusion of India is of yet greater importance because of its significant presence in all aspect of regional life. In addition to the greater Central Asian region, a second group of relevant countries and regions include China, Russia, as well as the Middle East, Europe, Japan and the United States.

The countries in the Greater Central Asia region share many common economic characteristics such as difficult topography and lack of direct access to the seas. They are also characterized by underdeveloped transport infrastructure and commodity-oriented economies. However, many of the countries also share significant cultural, social, and ethnic bonds which make the further development of ties quite natural.

Despite many common characteristics, trade among countries of Greater Central Asia constitutes only a fraction of the region's total trade. Moreover, Central Asian countries are under-trading with Western Europe and South and East Asia compared to their potential. Economists use the so-called

"gravity model" to assess trade potential.[1] This estimates potential bilateral trade using a simple model that takes into account two countries' relative economic size and the distance between them. The results of such estimates can then be compared to actual trade flows to provide estimates of lost trade. For example, Babetskii finds that Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan traded much less from 1997 to 2002 than the countries of the European Union (EU), accounting for relative size, GDP, and distance from trading partners.[2] Further, Elborgh-Woytek finds that the countries of the Commonwealth of Independent States (CIS) sharply under-trade with the EU.[3] In particular, the study found that the ratio of actual to potential trade in 2001 was only about 0.3.

The European Bank for Reconstruction and Development (EBRD)[4] compared actual and predicted levels of trade and found that Kyrgyzstan's and Uzbekistan's trade was considerably lower than their potential. The reasons for this "undertrading" are explained in terms of Central Asia's landlocked states, lack of adequate physical infrastructure, poor trade facilitation mechanisms, onerous trade restrictions, and governance issues affecting customs and transport services.

Our understanding of the existence of "undertrading" in the region compels us to examine its causes. Such an examination leads to the important realization that closer coordination and better trade policies will unlock significant, yet existing potentials and pave the way for regional and indeed continental trade to increase substantially.

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[1] For more on the "gravity model", see Babetskii, Ian., Babetskaia-Kukharchuk, Oxana., Raiser, Martin. "How deep is your trade? Transition and international integration in Eastern Europe and the former Soviet Union," Working paper No. 83. European Bank for Reconstruction and Development, London, 2003.

[2] Ibid.

[3] Elborgh-Woytek, Katrin, "Of Openness and Distance: Trade Developments in the Commonwealth of Independent States, 1993-2002," IMF Working Paper No. 03/207. International Monetary Fund, Washington, DC. 2003, pp. 9-17.

[4] See the EBRD report, "Transition Report 2003: Integration and Regional Cooperation," European Bank for Reconstruction and Development (EBRD), London. 2003, pp. 113-116.

Regional and Transcontinental Potential

Central Asian countries could benefit greatly from closer cooperation at the regional and continental levels. As mentioned, empirical studies indicate that landlocked countries are at a great natural disadvantage in achieving growth, which makes a liberal trading process and effective regional cooperation all the more important. Over the period 1960-92 landlocked developing countries grew at an average of 1.5 percent per year slower than countries that were not landlocked.[5] Over a span of decades this weak growth adds up to a significant loss of opportunity for these developing and impoverished countries.

Thus, examining alternatives become a requisite. Indeed, in a study of human development factors in Central Asian countries, the United Nations found that the largest aggregate economic gains come from reductions in the cost of trade, and the largest losses comes from civil war. This study reported that over ten years, the GDPs of Central Asian countries could be *50 percent higher* as a result of comprehensive and continuous regional cooperation![6]

It follows that the growth and sustainability of the entire region is largely and directly dependent on strong and effective cooperation for genuine regional trade integration. In this regard, Afghanistan becomes particularly central to this endeavor as it has the potential of connecting traffic between Central and South Asia and of linking China to the Arabian Sea and beyond.

The Potential for Trade in Greater Central Asia

Trade engenders and deepens specialization and specialization in turn assures economies of scale, especially for those countries with relatively modest domestic economies. Through increased economic integration with the world beyond their regional borders, trading economies can acquire and diffuse new technologies from more advanced countries and help reduce poverty.

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[5] MacKellar, Landis; Woergoetter, Andreas and Woerz, Julia. "Economic Development Problems of Landlocked Countries," Transition Economics Series 14. Institute for Advanced Studies, Austria. 2000, p. 15.

[6] United Nations Central Asia Human Development Report 2005. United Nations Development Programme, New York. 2005, pp. 205-212.

Recent studies show that over fifteen years, global free trade could save 440 million people from poverty.[7] Global free trade would create welfare gains estimated at $203 billion annually for developing countries, or 3.2 percent of GDP. Note that global concessional assistance going from industrialized countries to developing countries is about $50 billion annually. Interestingly, the total welfare gains of $203 billion produced from global free trade would amount to about four times the size of the concessional assistance figure.

Exploiting Afghanistan's position as a land bridge between Central and South Asia and the other neighboring economies can be a significant source of regional economic growth. The Asian Development Bank (ADB) and other recent studies point to substantial economic benefits over the next five to ten years from the development of road corridors connecting Central Asia and South Asia. A study by Ojala estimates that improved road corridors can increase export and import prices in Central Asia between 7% and 10%.[8]

Studying the potential benefits of North-South corridors, the ADB found that overall trade can increase by as much as 15%, or $12 billion, for the Greater Central Asia region as a whole if transportation and trade facilitation are improved.[9]

The Impact of the Central-South Asia Corridors in Regional and Continental Trade

In 2003 the ADB sponsored a "Ministerial Conference on Transport and Trade in Central and South Asia" where a "Central and South Asia Trade and Transport Forum (CSATTF)" was established. As part of this initiative, studies were conducted to assess the benefits of regional trade via the development specific road corridors.

The related ADB study identified 52 potential road corridors through Afghanistan connecting Tajikistan, Uzbekistan, and Turkmenistan with five

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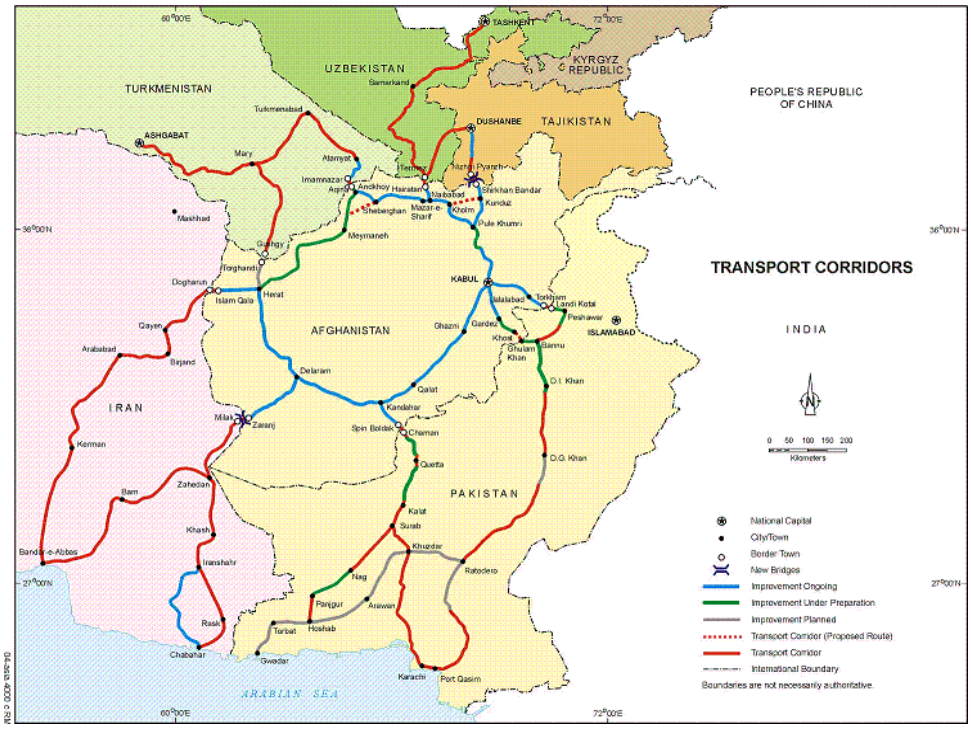
[7] Cline, William R, *Trade Policy and Global Poverty*. Center for Global Development, Institute for International Economics, Washington DC, 2004, pp.227-261.

[8] Byrd, William, "Prospects for Regional Development and Economic Cooperation in the Wider Central Asia Region," Paper prepared for the Kabul Conference on Regional Economic Cooperation, December 3-5, 2005. World Bank. Washington DC. January 2006, p.55.

[9] Ibid.

seaports in Pakistan and Iran. Thirty-one of these roads would link to Pakistan ports and the other twenty-one to ports in Iran (figures 1 and 2).

Figure 1: Regional Corridor Map: Afghanistan as a Landbridge[10]



The total distance of the combined corridors is about 13,586 kilometers or 8,444 miles. It is assumed that the corridors are to originate in Dushanbe for Tajikistan, Tashkent for Uzbekistan, and Ashgabat for Turkmenistan and then enter Afghanistan from Tajikistan at Shirkhan Bandar (or Hairatan), from Uzbekistan at Hairatan and from Turkmenistan at Aqina (or Torghandi). The corridors exit Afghanistan from Nangargar province to Pakistan's ports at Torkham (leading to Karachi/Port Qasim) or via Afghanistan's Kandahar province at Spin Boldak (leading to Karachi or Gwadar). In addition, the corridors would lead to Iranian ports via the

[10] Source: Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors." Central and South Asia Transport and Trade Forum. Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005.p.8.

Afghanistan exit points at Zaranz going towards Bandar e-Abbas (or Chabahar) and via the exit point of Islam Qala going towards Bandar e-Abbas.

Figure 2: Afghanistan Primary Road Network[11]

The above development would offer a large number of options for private transport through Afghanistan. For example, as many as fourteen routes connect Tajikistan and Pakistan via Kabul to the exit point at Torkham. Other entry/exit points allow for seven routes linking Uzbekistan and Pakistan and five between Uzbekistan and Iran. In addition, ten routes connect Tajikistan to Iran via various alternatives in Afghanistan and six alternative routes between Turkmenistan and Pakistan, along with ten routes connecting Turkmenistan and Iran all via Afghanistan.

It is important to note that these corridors not only link Central Asia to sea ports in the South but also open up routes to Kazakhstan, Kyrgyzstan, and, importantly, China. Tables 1, 2 and 3, below list the ten longest road corridors ranked by to sea ports.

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[11] Source: Van Zant, Eric, "Reconnecting Afghanistan," Asia Development Bank Review. Asia Development Bank. Manila, Philippines, December 2005, p. 6.

Tables 1, 2 and 3: Central-South Asian Road Corridors

Table 1: From Tajikistan (Dushanbe) to Pakistan and Iran Ports

Corridor Number	Road Corridor/Road Section	Distance (km)	Rank
1	Via Nizhni Pyanzh/Kabul/Spin Boldak/Karachi	1990	1
2	Via Termez/Kabul/Spin Boldak/Karachi	2095	2
7	Via Nizhni Pyanzh/Kabul/Spin Boldak/Surab/Gwadar	2246	3
3	Via Nizhni Pyanzh/Kabul/Torkham/Karachi	2251	4
8	Via Nizhni Pyanzh/Kabul/Spin Boldak/Khuzdar/Gwadar	2261	5
47	Via Gushgy/Zaranj/Chahbahar	2304	6
25	Via Gushgy/Herat and Spin Boldak/Karachi	2309	7
9	Via Termez/Kabul/Spin Boldak/Surab/Gwadar	2351	8
4	Via Termez/Kabul/Torkham/Karachi	2356	9
10	Via Termez/Kabul/Spin Boldak/Khuzdar/Gwadar	2366	10

Table 2: From Uzbekistan (Tashkent) to Pakistan and Iran Ports

Corridor Number	Road Corridor/Road Section	Distance (km)	Rank
35	Via Termez/Kabul/Zaranj/Chahbahar	2564	1
30	Via Gushgy/Herat/Spin Boldak/Surab/Gwadar	2565	2
33	Via Termez/Herat/Zaranj/Chahbahar	2569	3
	Via Termez/Herat/Spin Boldak/Karachi	2574	4
31	Via Gushgy/Herat/Spin Boldak/Khuzdar/Gwadar	2580	5
41	Via Termez/Kabul and Zaranj/Bandar Abbas	2632	6
37	Via Termez/Herat and Zaranj/Bandar Abbas	2637	7
52	Via Imamnazar/Islam Qala/Bandar Abbas	3123	8
46	Via Termez/Kabul/Zaranj/Bandar Abbas	3178	9
44	Via Termez/Herat and Zaranj/Bandar Abbas	3183	10

Table 3: From Turkmenistan (Ashgabat) to Pakistan and Iran Ports

Corridor Number	Road Corridor/Road Section	Distance (km)	Rank
15	Via Termez/Kabul and Spin Boldak/Karachi	2641	1
39	Via Termez/Herat and Islam Qala/Bandar Abbas	2666	2
32	Via Nizhni Pyanz/Herat/Zaranj/Chahbahar	2667	3
5	Via Nizhni Pyanzh/Kunduz/Herat/Spin Boldak/Karachi	2672	4
36	Via Nizhni Pyanzh/Herat and Zaranj/Bandar Abbas	2735	5
38	Via Nizhni Pyanzh/Herat and Islam Qala/Bandar Abbas	2764	6
13	Via Termez/Herat/Spin Boldak/Surab/Gwadar	2830	7
14	Via Termez/Herat/Spin Boldak/Khuzdar/Gwadar	2845	8
18	Via Termez/Kabul/Spin Boldak/Surab/Gwadar	2897	9
16	Via Termez/Kabul and Torkham/Karachi	2902	10

Source: Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors." Central and South Asia Transport and Trade Forum. Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005. pp. 15-16.

Regional Benefits and Impact of the Road Corridors

The benefits from developing Central Asian transport corridors are significant for the greater Central Asian countries as well as for neighboring regions. However, the benefits of regional corridors only materialize when participating countries cooperate with one another. The ADB found that once the corridors are built total regional trade will increase by 160% and combined transit trade will grow by 113%. Total exports among the participating countries by 2010 will increase by 14% (or $5.8 billion) and total imports will grow by 16% (or $6.7 billion). The impact on GDP as a result of trade via the corridors is also noteworthy. The ADB estimates that the combined GDP of the participant countries in the region will increase by over 5% per year during the next five years, for a total growth of $5.9 billion. These benefits come at a relatively low cost as the corridors require a total investment of about $5 billion for the entire region. This level of investment represents less than 5% of the combined projected total national investments by participating countries over the same period.

Participating countries will also benefit from increased employment as a result of trade. The corridors are estimated to increase full-time employment in the region by 1.8 million jobs. In addition, the constructions of the road corridor itself will add 12 million person-days of temporary employment for the duration of construction and 15 million person-days of permanent employment for ongoing road and infrastructure maintenance. The creation of jobs is significant for the Central Asia countries given current levels of unemployment and underemployment.

Impact of Road Corridors on Afghanistan

With about 652,000 square kilometers, Afghanistan is a relatively large country and roads are its principal means of transport. Afghanistan's road network comprises about 6,100 km of national roads, 15,000 km of provincial roads, 15,000 to 20,000 km of rural roads, and 3,000 km of urban roads, including 1,060 km in Kabul.[12] The national highways add up to about 3,300

[12] Pyo, D.S.; Alam, M. and Gupta, M.D. "Report and Recommendation of the President to the Board of Directors a Proposed Loan to the Islamic Republic of Afghanistan for the Qaisar-Bala Murghab Road Project," Asia Development Bank.

km, the largest part of which– 2,300 km –is the ring road that connects Afghanistan's major regional centers of Herat, Kandahar, Maimana, Mazar-e-Sharif, Sheberghan and Kabul. These roads are also the main connectors to neighboring countries. With donor support, Afghanistan is now undertaking a massive infrastructure investment effort to rebuild this ring road. The target is to double the amount of paved road in the country to 32% of the total by 2010.

Table 4: Key Economic Impact of the Road Corridors on the Region[13]

Economic Impact on Regional Trade	Figures
Combined incremental regional trade growth 2002-2010 (in percent)	160
Combined incremental regional transit trade growth 2002-2010 (in percent)	111
Corridor investment cost (in million dollars)	5639
Corridor investment as % of total investment	4.55
Annual travel cost saving/$ of investment 2010 (in dollars)	0.31
Incremental annual GDP growth rate 2005-2010 (in percent)	0.43
Incremental annual GDP/$ of investment 2010 (in dollars)	1.05
Incremental annual full time employment in 2010 (million)	1.86
Total incremental export growth 2002-2010 (in percent)	14
Total incremental import growth 2002-2010 (in percent)	16
Incremental revenue in 2010 (in million dollars)	910

As part of the development of road corridors running through Central Asia, connecting North to South and East to West, the emergence of new alternative routes will offer Afghanistan unique prospects to revive its

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July 2005, p. 10. Available at http://www.adb.org/Documents/RRPs/AFG/rrp-afg-37075-02.pdf.

[13] Source: Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors." Central and South Asia Transport and Trade Forum. Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005. p. iii.

central role as the facilitator of regional economic cooperation and growth. In this sense, all "roads [could] lead to Kabul".

- Trade Growth

Out of the total 13,586 kilometers of roads that are needed for regional trade, 3,657 are to be built in Afghanistan. Their benefit to the country will be significant. The ADB estimates that Afghanistan's exports will increase by 202% and imports will increase by 54% over the next five years. This translates into the addition of $592 million in exports and $1,318 million in imports.

- GDP Growth

In terms of the economic impact of the road corridors, the ADB estimates that by 2010 Afghanistan will add $1.8 billion to its GDP. The annual projected rate of GDP growth is estimated to be 12.7%, as opposed to 8.8% without the road corridors. This is a net annual incremental increase of 3.9% in GDP for Afghanistan over the same period. Afghanistan's per capita GDP has been very low - a mere $122 in 2001/2002. Given this, and due to the road corridors, an increase per capita of 36% is of a huge importance. Key measures of the economic impact of the road corridors are listed in the Table 5 below, along with other participating countries in the region.

- Job Creation and Long-Term Employment

Another essential factor in the need for regional cooperation is the creation of jobs and job security via increased trade. As many of the road segments will pass through poorer regions trade will spur more sustained and balanced regional development. Rural areas along both North-South and East-West corridors will gain from the construction of the roads, but more important, market access will expand as transport time and costs are reduced. The issue of job creation is also vital for Afghanistan's long-term sustainability and its regional security implications. According to the ADB, the development of regional road corridors will add a total of 771,000 full-time jobs in Afghanistan's economy out of a total of 1.8 million for the region. The added jobs in Afghanistan represent about 41% of the total job increase projected for

the region as a whole as a result of the transport corridors. In addition to the creation of full time jobs, road construction and maintenance will create additional employment in Afghanistan. Thus, Afghanistan will add 4.6 million person days during the 5 year construction period, 38% of the total 12 million jobs creation projected for the region. In addition, and perhaps more significantly, as the road corridors need to be maintained, this will entail the creation of an addition 4.1 million permanent jobs. These job creations are of vital importance to both the security and stability of Afghanistan as it is an additional opportunity to rehabilitate and re-integrate ex-combatants into the economic life of the nation and is a basis for creating wider sustained economic benefits and assuring stability.

- Increase in Freight

The flow of trade will increase with the development of the fifty-two corridors. The ADB estimates that by 2010, the annual increase in two-way freight will be 4.594 million tons for the two Afghanistan-Pakistan crossings (Spin Boldak and Torkham). In addition, freight will increase by 923 thousand tons at the Uzbekistan-Afghanistan crossing point and 740 thousand tons for the Turkmenistan-Afghanistan point.

- Travel Time and Travel Costs Savings

A total of 139 hours will be saved in travel time as a result of the new corridors, and Afghanistan will stand to gain the most from this improvement. Total savings in travel time in Afghanistan will be 71 hours. This is about half the total travel time savings for the entire region. As the road corridors are built, total savings in overall travel costs will be $1.728 billion for the all participating countries. Again, Afghanistan stands to gain the most from the new road corridors with a total savings in travel costs of $746 million, which is 43% of the total savings for the region. It is important to note that among some of the more challenging impediments to trade are travel costs and travel time. With improvements in both of these, as described above, regional economic growth has a concrete chance of reaching its potential in Central Asia.

- Impact on State Revenues

Increases in regional trade resulting from the new road corridors will cause governmental revenues to increase substantially. According to the 2005 ADB study, revenue increases based on current tariffs and transit fees will reach $910 million for the participating countries of the projected eight years to 2010. Afghanistan will stand to gain relatively significantly as its revenues will increase by $208 million or about 23% of the region's total.

Economic Diversification – Central Asia Countries as a Special Case

Central Asian countries, because of their legacies from the former Soviet-run economies, continue to have dominance of primary commodities and low value-added manufactured products in their exports. Massive reliance on shipments by rail, coupled with the high cost of road transport, has led to a distorted export structure in Central Asia. A study by Raballand[14] confirms that the exports of Central Asian countries are concentrated in bulk commodities with relatively low value-added manufactured products. This serves to reinforce production structures established by central planning in the Soviet era. The development of road corridors will open new types of trade flows which, in turn, will foster economic diversification for Central Asia and to the further benefit of the entire region.

[14] Raballand, Gaël; Antoine Kunth, and Richard Auty (2005). "Central Asia's Transport Cost Burden and Its Impact on Trade," *Economic Systems* 29(1). Munich. March 2005, pp. 6-31.

Table 5: Economic Impact on Afghanistan and the Region

Economic Impact Measure	Afghanistan	Total for Region	Afghanistan's share compared to the Region
Total road distances (km)	3,657	13,586	
Total travel time and cost impact			
Total time saving (hours)	71	139	51%
Time saved per km (hours)	0.019	0.010	
Total travel cost savings ($ million)	745.7	1728.3	43%
Total freight impact (000 tons)			
Tajikistan-Afghanistan border (Nizhni Pyanzh-Shirkhan Bndr)		222	
Afghanistan-Pakistan border (Spin Boldak-Chaman)		2,061	
Afghanistan-Pakistan border (Torkham)		2,533	
Uzbekistan-Afghanistan border (Termez-Hairatan)		923	
Turkmenistan-Afghanistan border (Imamnazar-Aquina)		252	
Turkmenistan-Afghanistan border (Gushgy-Torghandi)		488	
Afghanistan-Iran border (Zaranz-Milak)		848	
Afghanistan-Iran border (Islam Qala-Dogharun)		123	
Employment impact			
Total full time employment	771,000	1.863	41%
Temporary emplymt/road rehabilitation (million person days)	4.59	12.18	38%
Permanent emplymt/road maintenance (million person days)	4.02	14.99	27%
GDP impact			
Increase in GDP 2005-2010 ($ million)	1,827	5,927	31%
Annual real GDP growth/2005-2010 without corridor(%)	8.75	4.60	
Annual real GDP growth/2005-2010 with corridor (%)	12.68	5.03	
Difference in annual GDP growth with corridor (%)	3.93	0.43	
Export impact			
Increase in annual exports with corridor ($ million)	592	5768	10%
Import impact			
Increase in annual imports with corridor ($ million)	1,318	6,720	20%
Regional trade impact			
Increase in annual intraregional exports with corridor ($ million	553	2,847	19%
State Revenue impact			
Annual increase in state revenue ($ million)	208	910	23%
Total cost of corridor construction ($ million)	1,932	5,639	34%
Corridor investment as % of total investments (2002-2010)	6.36	4.55	

Source: Alamgir, "Report on the Economic Impact of Central-South Asian Road Corridors", p. 47.

Opportunities and Impediments to Regional Trade

Its landlocked geography leaves the Central Asia region profoundly dependent on its immediate neighbors for access to the rest of the world. With the break-up of the Soviet Union, the emergence of independent states in Central Asia, and the defeat of the Taliban in Afghanistan, new and hopeful opportunities have opened for greater regional cooperation.

Yet in spite of a number of successful meetings of the interested countries and both regional and bilateral agreements, overall progress has been slow. Against this background, the opening of the North-South and East-West corridors via Afghanistan offers new hope for substantial long-term development in the region.

Impediments to regional trade are numerous, and the challenges seem at times insurmountable (see table 6 below). These challenges fall into two very different groups, the first pertaining to the economic and social environment as a whole and the second consisting of specific and more limited issues that are subject to shorter-term solutions.

The first group includes legacies reflective of historic and geopolitical factors. Prominent among them are regional insecurity, terrorism and narcotics trafficking and production. These challenges greatly impede normal economic growth and hinder social betterment, but will only be resolved with large expenditures over time.

More immediate obstacles to trade include infrastructure costs, and costs arising from the lack of proper legal and regulatory systems, restrictive trade policies, poor border management, and the absence of effective transport facilitation. They also include inadequately harmonized trade and customs procedures, lack of transparency, high levels of corruption, a large informal or illegal sector, a weak private sector, and the absence of vital services such as trade finance, banking, insurance, bonding, and telecommunication facilities. This second layer of obstacles can be resolved relatively quicker but requires a strong sense of cooperation among regional players and within each country. More importantly, these challenges, once addressed, can pave the way to resolving the more daunting first layer obstacles which have held back growth and stability.

Impediments to Trade

Numerous studies show that being landlocked is a significant impediment to economic growth. One study found that based on shipping company information, landlocked country's shipping costs are more than 50 percent higher compared to costs of coastal countries. The same study found that more than 70 percent of the variation in per capita income can be explained by the proximity of a country to important markets.[15] Landlocked countries, because they incur greater transport costs, keep their wages lower to remain competitive. Further, another study, looking at Central Asian countries specifically has concluded that being landlocked is estimated to reduce trade by more then 80%.[16] This drastic reduction in trade was mainly due to various costs related to crossing many borders and due to navigating via land through neighboring countries where trade is subject to additional administrative restrictions and rigid procedures rather than due to geographical distance to destination markets per se.

Given the above, Central Asia countries, even though they cannot reduce physical distances per se, they can gain significantly from reducing the cost of trade and transit. In focusing on cost reduction, they can benefit by focusing on a flexible and suitable transport infrastructure investment strategy, and even more importantly, by designing and implementing a cooperative approach to a well-crafted transport and trade facilitation and logistics strategy among partner countries.

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[15] Molnar, Eva, and Ojala, Lauri, 'Transport and Trade Facilitation Issues in the CIS-7 Countries, Kazakhstan, and Turkmenistan', Paper prepared for the Lucerne Conference of the CIS-7 Initiative, 20th-22nd January 2003, p.39. Available at http://www.cis7.org/.

[16] Raballand, Gaël, "Determinants of the Negative Impact of Being Landlocked on Trade: An Empirical Investigation Through the Central Asian Case," *Comparative Economic Studies*, December 2003, Volume 45, Number 4, pp. 520-536.

Table 6: Key Trade and Transit impediment[17]

Trade Policy	▪ Differences in tariff rates ▪ Different stages in the WTO accession process ▪ Overlapping, sometimes inconsistent regional trade preferences ▪ Non-tariff tax barriers such as excise taxes on imports, labeling requirements, import licenses
Border Management	▪ Lack of harmonized customs procedures, leading to detailed checks at borders ▪ Numerous and cumbersome documentation requirements ▪ Lack of recognition of TIR seals and high cost of transit convoys ▪ Lengthy transshipment procedures and lack of adequate logistics ▪ High levels of corruption of customs officials and other inspection agencies
Transport Sector	▪ Visa restrictions on entry of foreign truckers ▪ Truck entry fees ▪ Trucking cartels to guarantee safe passage ▪ Lack of modern (TIR compatible) trucking fleet ▪ Slow speed of rail cargo leading to lack of competitiveness ▪ Lack of freight forwarding firms offering smaller tonnage freights on rail cargo

Opportunities in Facilitating Trade

- The Importance of Local and Regional Development for Generating Continental Trade

Due to Central Asia's landlocked character, when promoting long distance and continental trade one must focus on development of ports. Most of Afghanistan's trade is now conducted via Pakistan mainly through Karachi. However, as an ADB study points out, Karachi and its nearby sister port Qasim have a total of forty berths between them, which are largely underutilized. This capacity is largely underutilized and is available for trade involving Afghanistan, the Central Asian republics, and the more distant trading partners.

In addition to these two ports, the new deep-water port at Gwadar in Pakistan is also coming on line. According to the Economic Cooperation Organization (ECO), part of the trade from Central Asia and beyond, could

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[17] Source: Byrd, William, "Prospects for Regional Development and Economic Cooperation in the Wider Central Asia Region." Paper prepared for the Kabul Conference on Regional Economic Cooperation, December 3-5, 2005. World Bank. Washington DC, January 2006, p.17.

transit via Gwadar. The ECO study shows that as much as 40 percent of total transit can be channeled in this way.[18] Further, Iran's new port at Chabahar has four berths and Bandar e-Abbas another twenty six. With further increases in efficiencies and better trade facilitation, the capacity of both ports could be enhanced, thereby creating no less than four significant regionally competitive outlets for third country or longer-distance trade.

The Asian Development Bank studied long distance and third country transit trade entering the region through the warm water ports mentioned above[19]. It estimated the current level of transit trade to be about $2.5 billion for the countries in the region of the road corridors discussed above. If the further road corridors are built by 2010 however, transit trade could grow to $6.3 billion from the current $2.8 billion, a substantial increase of 80 percent.

Thus, the development of local ports can unlock the potential of the entire region. This will draw longer-distance partners, including China, Russia and India, on the one hand, and the Middle East and Europe on the other. The development of continental trade starts by developing local port capacity, improving efficiency, and implementing better trade facilitation strategies.

- Effective Trade Facilitation & Its Regional Benefits

Strategies in trade coordination and facilitation have the singular potential to make a significant difference in spurring economic growth. In this regard, there are practical areas where quick gains can be achieved and where investments can show adequate and fast returns. To explore these, let us focus on (1) the costs of trade facilitation; (2) customs transit and border management issues; (3) the role of the private sector, and (4) the importance of the informal sector, including the informal banking sector. We will also touch on such key related aspects such as the development of the insurance

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[18] Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors," Central and South Asia Transport and Trade Forum (CSATTF). Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005, p.28.

[19] Ibid.

industry, the role of the international community, regional trade and policy harmonization, and the need for a regional funding mechanism

- The Costs of Trade Logistics in Facilitation

The benefits of the new road corridors depend greatly on achieving successful cooperation in trade and transit facilitation measures including trade logistics. In addition, improvements in trade facilitation is a quick and concrete way of demonstrating the benefits from the required investments in large physical infrastructure, trade logistics costs are part and parcel of the trading activity. Molnar and Ojala argue that in a well functioning market economy logistics costs are usually less than 10 percent of the sale price of manufactured goods.[20] But over long distances freight costs alone can use up to 50 percent of the sales price. This helps explain why the trade volumes of landlocked countries are 60 percent lower than representative coastal economies. Under such circumstances, trade logistics can become as decisive a function as purchasing, production, distribution and marketing. (See table 7).

Table 7: Trade Logistics Costs[21]

	Direct Logistics Costs	**Indirect Logistics Costs**
Overhead or Opportunity costs	- Inventory costs - Value of time - Technology/IT costs	- Cost of lost sales - Customer service costs - Obsolescence - IT maintenance
Activity / Function related costs	- Transport/Freight costs - Cargo handling - Warehousing/storage - Insurance - Documentation - Telecommunications	- Packaging - IT personnel - Cost of capital in logistics equipment - Administration

[20] Molnar, Eva, and Ojala, Lauri, "Transport and Trade Facilitation Issues in the CIS-7 Countries, Kazakhstan, and Turkmenistan," Paper prepared for the Lucerne conference of the CIS-7 Initiative, 20th-22nd January 2003, pp. 9-12. Available at http://www.cis7.org.

[21] Source: Molnar, Eva, and Ojala, Lauri, 'Transport and Trade Facilitation Issues in the CIS-7 Countries, Kazakhstan, and Turkmenistan.' Paper prepared for the Lucerne Conference of the CIS-7 Initiative, 20th-22nd January 2003, p.11.

- Customs, Transit and Border Management

A key impediment to trade is the endless procedures at border and custom posts. Burdensome documentation, rigid procedures, and the lack of harmonized laws prevent commercial traffic from reaching its potential. As shown in Table 8, fifty-seven signatures for imports are required for Afghanistan, forty-five for Iran, and twenty-two for both India and the Kyrgyz Republic, while average for the OECD countries is only three. The number of documents required to export is eighteen for Uzbekistan and 15 for India, compared with only six for the OECD countries. Finally, the average delay on imports is a staggering 139 days for Uzbekistan, 97 for Afghanistan and 87 for Kazakhstan, against fourteen in OECD countries.

Table 8: Cross Border Trading Costs: Procedures and Documentation[22]

Country or Region	Documents for export (number)	Signatures for export (number)	Time for export (days)	Documents for import (number)	Signatures for import (number)	Time for import (days)
OECD - High Income	5.3	3.2	12.6	6.9	3.3	14
Afghanistan	..	..	..	10	57	97
Kazakhstan	14	15	93	18	17	87
Kyrgyz Republic	..	..	..	18	27	127
Uzbekistan	..	..	..	18	32	139
Iran	11	30	45	11	45	51
India	10	22	36	15	27	43
Pakistan	8	10	33	12	15	39
Turkey	9	10	20	13	20	25
Russian Federation	8	8	29	8	10	35
Germany	4	1	6	4	1	6
United States	6	5	9	5	4	9

The transformation of laws and customs procedures cannot be accomplished overnight, in part because they in turn lead to to such broader changes as the reduction of rigid cultures of control and a renewed focus on the elimination of corruption. All this assumes higher levels of bilateral and regional cooperation, especially in such key areas as the reform of existing bilateral agreements; negotiation of transport accessibility agreements; development

[22] Source: See online report by the World Bank, "Doing Business, Get Full Date," Afghanistan, Trading Across Borders, World Bank. Washington DC. Available at http://www.doingbusiness.org/CustomQuery/.

of transshipment arrangements; piloting of joint processing; and development of IT interfaces.

A key constraint to efficient trade flows through Afghanistan is the need to trans-ship cargo—the unloading and re-loading from one truck to another or from rails to trucks, etc. at crossing points between countries. *The high level of truck-to-truck trans-shipment at the borders of Afghanistan may be unique in international transit systems.*[23] For example, a great amount of cargo going to Kabul via Pakistan is trans-shipped in Peshawar, Quetta or Spin Boldak. The same occurs at the Iran/Afghanistan border points. The reluctance to allow Pakistani drivers through Afghanistan and concerns about drug smuggling play a part in this problem. Trans-shipment increases handling costs and transit times and causes damaged and lost cargo. Inadequate training and poor working conditions for personnel at customs points adds further to the costs. The World Bank found in 2005 that cargoes to and from Afghanistan lose an average of 5 percent of their value to spoilage and loss, and that in some cases the losses reach 30 to 50 percent.[24] Any solution to this issue will take some time to implement, as security concerns and infrastructure development take priority in the short-term. One "quick-win" solution is to allow for trans-shipment to take place away from the border or in a neighboring country where both examination and trans-shipment can be carried out.

Uzbekistan has an opportunity to help ease trans-shipment by lifting some of the restrictions at Hayratan. This will support the World Bank's development efforts on the Afghan side of the border. Related measures would be for Turkmenistan and the Iranian governments to upgrade the facilities on their sides of the border. Also important would be to modernize

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[23] See the World Bank report, "Trade and Regional Cooperation between Afghanistan and its Neighbors," Report No. 26769. Poverty Reduction and Economic Management Sector Unit South Asia Region. Washington DC, February 18, 2004, p.31. Available at http://www.worldbank.org/transport/learning/learning%20week/trade_facil_2005/Regional%20and%20Country%20Report/World%20Bank%20(2004b)%20Afghanistan.pdf.

[24] See the World Bank report, "The Investment Climate in Afghanistan," Washington DC, December 2005, p. ix. Available at www.ipanet.net/investmenthorizons_afghanistan.

the Afghanistan Transit Trade Agreement (ATTA) agreement with Pakistan, as well as to open greater access to Pakistan for Afghan vehicles.

The streamlining of border procedures should also be given high priority, preferably by reducing them to a single document. Afghan authorities have already introduced new customs declaration forms with the adoption of the Afghan Customs Clearance Declaration (ACCD). While these are a significant improvement over the previous document, the new process still fails to conform to international formats. As such, going forward with the standard Single Administrative Document (SAD) as part of the modernization process and the ASYCUDA[25] computer system is highly desirable to help facilitate the growth of trade at the border.

- The Role of the Private Sector

Some 38 percent of the exporters surveyed by the World Bank identified the cost of transport as either a major or very severe obstacle to trade in Afghanistan.[26] It is vital to recognize the role of the private sector in reducing these costs. The first step is to have an inclusive approach in the process of evaluation and implementation of reforms by seeking and encouraging direct private sector participation and input. In doing so, there are a number of key areas for cooperation where that sector can make a successful contribution to the expansion of trade.

Associations of private transport operators are useful in engaging the private sector. The United Nations Conference on Trade and Development (UNCTAD), the Asian Development Bank, and the World Bank have all proposed the creation of such forums as a Trade and Transport Facilitation Committee. These associations should include truckers, freight forwarders and freight brokers as well as transport insurance companies, etc. They could develop recommendations for streamlining border controls and reducing entry barriers for private investors, and also propose policies to stimulate private sector activity.

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[25] ASYCUDA: Automated Issues under discussion. A system for customs data.

[26] See the World Bank report, "The Investment Climate in Afghanistan," Washington DC, December 2005, pp. 29-30. Available at www.ipanet.net/investmenthorizons_afghanistan.

Politicians and donors often find it easier to commit resources if a problem can be quantified and if the results of their interventions can be concretely measured. The World Bank has gained experience in developing performance measurements on the facilitation of trade. These involve regularly checking border crossing times, the number of irregularities discovered during inspections, incidents of corruption, etc. The information is collected from public agencies and the trucking businesses and transformed into electronic format to be entered into a computer system. With the assistance of the private sector, the World Bank is developing such a system for nine corridors in Central Asia, and is working along the same lines on customs projects in Afghanistan and Pakistan.[27]

The new Customs Law introduced in Afghanistan is largely compatible with international standards. However, the Asian Development Bank has pointed to a few problems.[28] Thus, there is no provision for a user fee, as required for future World Trade Organization (WTO) membership; it is an obligation to use a Customs broker for every operation, which is contrary to WTO regulations; Customs is unable to carry out a large number of investigations; and has significant limitations in enforcement. It is also important to point out that sudden or erratic introduction of trade legislation can be a hindrance to the efficient flow of trade at the border and costly to the private sector. In this regard, maintaining a stable customs legislative environment is vital as a risk mitigation strategy and as an important factor in the promotion of trade. Direct input from the business community will be highly valuable in reducing one of the key impediments that make trade costly.

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[27] Byrd, William, "Prospects for Regional Development and Economic Cooperation in the Wider Central Asia Region," Paper prepared for the Kabul Conference on Regional Economic Cooperation, December 3-5, 2005. World Bank. Washington DC. January 2006, p.56.

[28] Bayley, Anthony, "Report On Border And Customs Related Facilities And Procedures In Afghanistan," Paper prepared for the Second Meeting of the Trade and Customs Working Group Bangkok 13-14, Central and South Asia Transport and Trade Forum (CSATTF). Asia Development Bank, Manila, Philippines. December 2005, p. 49.

- The Importance of the Informal Sector

According to official data, trade flows between Afghanistan and its neighbors comprise only 10 to 12 percent of all Afghan exports.[29] However, if data on the vibrant informal economy were added, the percentage would rise sharply. The informal economy in Afghanistan, inclusive of drugs, accounts for some 80 to 90 percent of the total economy.[30] Thus, informal and illegal trade far exceeds official trade. Surveys conducted in Central Asia by the United Nations Development Program (UNDP) found that much of the informal trading is conducted by small-scale "shuttle traders" who are subject to the highest level of restrictions at borders. In the case of Afghanistan—as in many other cases—informal trading has allowed Afghans to survive during the years of conflict via a flexible and inherently dynamic set of mechanisms.

However, the informal sector constrains long-term growth. It hinders revenue distribution and mobilization and jeopardizes state building, sustainability, and security. It is therefore vital to not only develop the institutions that can allow and encourage the informal sector to become formal but to also devise short-term approaches towards specific solutions which can galvanize the participation of both small-scale and larger scale informal traders.

Restrictive policies can often push traders even further into the informal sector. This type of growth in the informal economy has the potential of spilling over to neighboring countries, especially in and around Afghanistan creating additional and persistent security issues in the region. There is an opportunity here to cooperate in this particular area so that the impact of the informal sector on each neighbor is understood and where significant improvements can be achieved both in the economic and security sectors. Some, including the World Bank, have suggested the creation of border trading zones that would help traders transfer their activities from the

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[29] See the World Bank report, "State Building, Sustaining Growth, and Reducing Poverty: a Country Economic Report," Washington DC, 2005, p. xxi. Available http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/0821360957_Afghanistan--State_Building.pdf.

[30] Ibid., p. 5.

informal and illegal sectors to the legal sector.[31] Traders operating in the informal sector could be offered access to certain restricted markets in exchange for an entry fee. This scheme has the potential to separate informal trade from narcotics products. Border trading zones can also generate substantial revenue for the state, at the same time allowing control over the movements of goods and reducing smuggling. The World Bank points to the example of bazaars in Pakistan that allow informal trading from Afghanistan. Similar but better regulated zones could be set up in other countries neighboring Afghanistan.

Business in Afghanistan still relies on the centuries-old "*hawala*" system for transferring funds and payments, and for short-term loans. The hawala networks are based on an honor system for payments and commissions. It is cash-based and paperless, and thus does not lend itself to modern banking and accounting practices. A World Bank survey reports that only about 30 percent of businesses in Afghanistan maintain bank accounts.[32] The same survey found that 21 percent of firms have obtained loans from the *hawaladars*, and 14 percent of exporters received payments through hawala transfers. Abolishing or heavily regulating the hawala system is not a feasible solution for Afghanistan as it could push hawaladars farther out of reach of the more formal sector and thus dampen trade. Moreover, the system is quite effective. Table 9 shows that hawala transfers are as efficient as formal transfers, while the length of time to clear a hawala transfer is very close to that required for a bank draft.

However, despite the efficiency and resilience of the hawala system, the informal banking system cannot sustain the further development of trade among the countries in the region, let alone continental trade. It perpetuates money laundering and further complicates the fight against terrorism.

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[31] Byrd, William, "Prospects for Regional Development and Economic Cooperation in the Wider Central Asia Region," Paper prepared for the Kabul Conference on Regional Economic Cooperation, December 3-5, 2005. World Bank. Washington DC, January 2006, p.58.

[32] See the World Bank report, "The Investment Climate in Afghanistan," Washington DC, December 2005, p. vi. Available at www.ipanet.net/investmenthorizons_afghanistan.

Beyond this, it hinders the Central Bank's ability to manage monetary policy, thus further thwarting long-term economic growth.

To address this problem Afghanistan should work towards the implementation of a self-regulatory financial services system, instead of building a traditional regulatory banking regimen. As an example, the World Bank had proposed a staged approach for transforming the informal banking sector into a more formalized one.[33] The following measures are suggested:

- The government, through the Central Bank, should engage the private sector and the hawaladars in direct dialogue, working with the informal Money Exchange Dealers Association to devise a self-regulatory and supervisory framework as an interim solution. The dealers are the only entities that can elucidate the current types of hawala and would be best placed to develop self-regulatory mechanism if sufficient incentives are offered them.
- Authorities should encourage applications for money service businesses from large money exchange dealers who could meet legal licensing requirements.
- The Central Bank could then consider licensing compliant money service businesses as non-banking financial institutions and sanction their participation in a wider range of formally regulated financial activities.
- As a final step, authorities might consider the transformation of some of the larger money exchange dealers into full fledged banks engaging in rural finance, trade finance, insurance and financial services. This would fuel the growth of trade and promote sustainability in the economy.

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[33] Ibid., pp. 49-54.

Table 9: Comparing the Hawaladars with Banks[34]	
% of firms with a loan from a *hawaladars*	21
% of firms with some form of bank credit	0.9
% of domestic firms that primarily pay by *hawala* transfer	10
% of domestic firms that primarily pay by bank transfer, check, or bank draft	11
% of exporting firms that primarily pay by *hawala* transfer	14
% of exporting firms that primarily pay by bank transfer, check, or bank draft	30
Average time to clear *hawala* transfer from domestic customer	28 days
Average time to clear a bank draft from domestic customer	7.3 days
Average time to clear *hawala* transfer from export customer	9.2 days
Average time to clear a bank draft from export customer	7.2 days

- Developing the Insurance Industry

The lack of trade and business insurance impedes trade in Afghanistan. Businesses and potential investors have cited this weakness as a major reason for their reluctance to make investments. A World Bank[35] survey found that 32 percent of business respondents cited the lack of shipping insurance as a major or severe impediment to their export activity. Because it is nearly impossible to get good local insurance for the transport of goods, truckers raise their rates to cover their potential losses or, worse, they get no coverage and thus are left subject to catastrophic loss. Under such circumstances, most international shipping lines do not allow their containers into the country.

Without transit insurance, Afghanistan's trade will remain underdeveloped. International donors have recently developed programs that address political risk, but general liability, product liability, and transit and trade insurance are not available. Nor is the private sector fully engaged in creating an adequate insurance marketplace.

The only path forward is to open the insurance sector to private competition and to allow the participation of foreign insurance companies with

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[34] Source: See the World Bank report, "The Investment Climate in Afghanistan", December 2005, p. 23. Washington DC. Available at www.ipanet.net/investmenthorizons_Afghanistan.

[35] Ibid., p. 29.

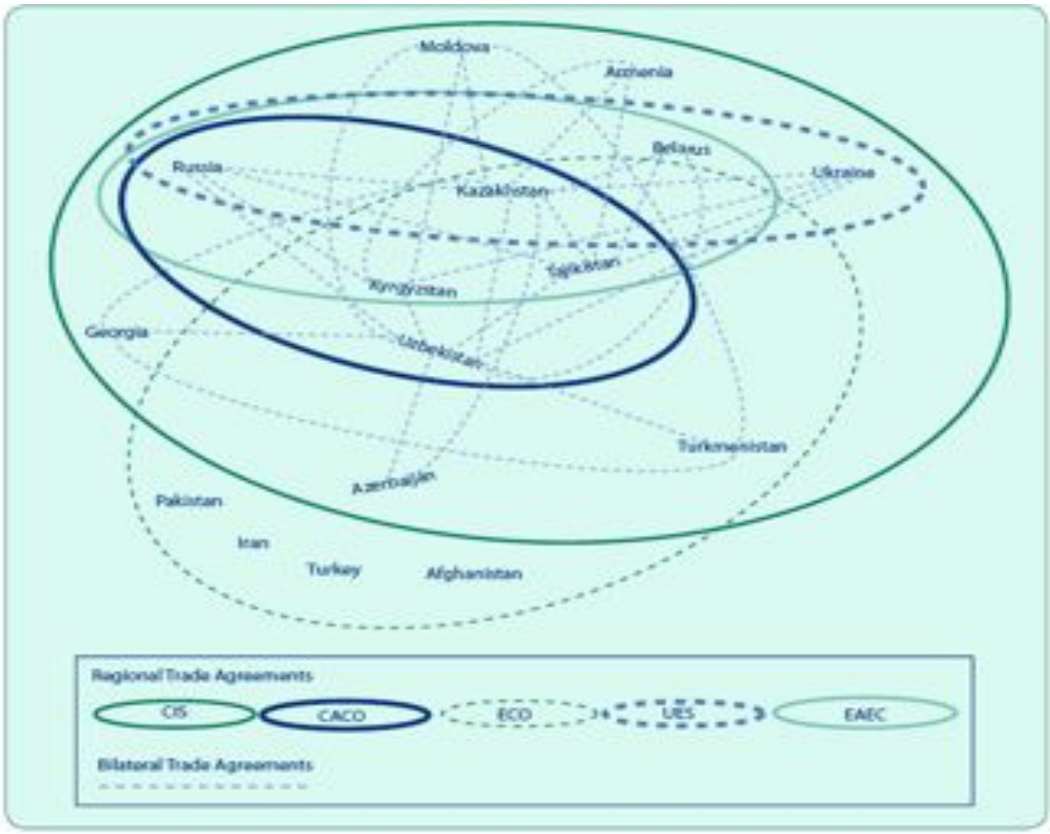
experience in transport insurance. A thorough assessment of the legal environment for an insurance industry is also needed. The authorities would need to directly engage private investors and the international and regional insurance providers. In this sense, close cooperation with neighboring countries would allow for the development of regional sectors with their particular expertise. Insurance being vital to trade, the only sure way of developing it, is to engage with the private sector so that the creation of basic insurance for trade, transit, and freight forwarding is assured.

- The Role of the International Community

International donors will continue to be essential if the Afghan trade is to develop. International organizations also have a role to play. A number of recent developments in regional cooperation support Afghanistan's potential role as a land bridge. Afghanistan joined the Central Asia Regional Economic Cooperation (CAREC) which fosters integrated initiatives to link Central Asia economies, streamlining finances and developing common approaches to technical assistance. In November, 2005, the South Asian Association for Regional Cooperation (SAARC) admitted Afghanistan to membership. Also, Afghanistan has observer status in the Shanghai Cooperation Organization (SCO) and started accession talks with the World Trade Organization (WTO). WTO accession is vital for Afghanistan's full interaction with the world's major economies.

Acknowledging this, the intricate web of rules and agreements created by overlapping integrative organizations can often delay real progress. As can be seen in the figure below, overlapping agreements have already resulted in a spaghetti bowl of conflicting trade rules. The best way to extricate Afghanistan and the region from this web is for all parties in the region to join the WTO. This would integrate disparate policy processes into a more cohesive strategy of regional and global cooperation.

Figure 3: Spaghetti Bowl: Regional Agreements



Source: United Nations Central Asia Human Development Report 2005. United Nations Development Programme, New York. 2005. p. 57.

One of the impediments to regional development in the area is the lack of dedicated regional funding mechanisms. The development of Afghanistan can be used as a spring board to establish such a mechanism. This initiative would look at the reconstruction of Afghanistan as an integral part of the development of a regional program and thus would establish a funding mechanism via the creation of a special trust fund. The World Bank[36] has a similar proposal specifically to support the modernization of the trucking fleet in Central Asia via a regional trust fund. Funding could be directed in such a way where both private and public sector operators could benefit, and at the same time. Governments would be incentivised to reduce entry barriers and assure the implementation of international standards such as the

[36] Byrd, William, "Prospects for Regional Development and Economic Cooperation in the Wider Central Asia Region," Paper prepared for the Kabul Conference on Regional Economic Cooperation, December 3-5, 2005. World Bank. Washington DC. January 2006, p.59.

TIR (Transport International Routière) convention, freight load limits, emission standards and the like.

- Investing in Road Corridors

In addition, donors can promote economic development and regional cooperation by supporting the road corridor initiative described in this paper. In the ADB's estimation, the required investment to build the roads is less than 5% of the combined projected national investments for the participating countries. Some of the work related to the construction of the road corridors is already underway. The World Bank, the European Union, the Islamic Development Bank and the governments of the United States, Japan, India, Kuwait and Pakistan are building segments of the regional road network. The ADB itself plans to finance road corridor projects in Afghanistan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan.[37]

The Importance of Regional Trade in the Energy Sector

Trade and Transportation Benefits of Oil and Gas

Afghanistan is crucial in linking South Asia to the natural resources of Central Asia and unlocking the enormous benefits to the entire region from the trade of oil and gas. The economies of China and India are growing at an explosive pace; with the combined GDP of the two countries projected to be almost double that of the United States by 2030.

The sheer size of these two economies creates gigantic appetites for energy. According to the U.S. Department of Energy, while world energy consumption is expected to increase by 2.6% annually from current levels to 2030; India's energy consumption will increase by 3.8% and China's by 5.0%

[37] Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors," Central and South Asia Transport and Trade Forum (CSATTF). Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005.

over the same period. This compares to a projected annual increase of only 1.3% for all OECD countries over the same period.[38]

By 2025 China will need 14.2 million barrels of oil a day to sustain its growth –double the amount in 2005. India's projected needs are greater still. India's oil imports stand at about 1.4 million barrels a day but, in order to address its economic growth, imports are projected to rise to about 5 million barrels a day by 2020, an increase of 360%.[39] In addition, India's natural gas consumption is projected to increase to about 6.8 billion cubic feet per day within 10 years, and to increase six-fold within 20 years, resulting in a need for about 400 million metric standard cubic meters per day of natural gas.[40]

Beyond the purely political or security related issues, the economic reasons that naturally link Central Asia's gas and oil resources to the needs of South Asia are overwhelmingly significant. These include the need to sustain the phenomenal economic growth of South Asia, the need for Central Asian countries to diversify their economies by directly benefiting from global market prices, and the unique opportunity to support Afghanistan's role as an energy transport corridor achieving stability and prosperity in the regional as a whole.

Most of northern India and Pakistan are devoid of energy resources. Accounting for half of South Asia's GDP, this region has perhaps the scantiest endowment of hydrocarbons of any important economic zone on earth. In sharp contrast, just a few hundred kilometers away, the plains of Central Asia consisting of Turkmenistan and Uzbekistan and the northern regions of Afghanistan may hold as much as over 217 tcf (trillion cubic feet) of gas reserves, more than the estimates for Saudi Arabia's reserves. *Clearly, these two regions need to find each other.* This is even more urgent as global fuel prices have jumped by 210% since 2002.[41] Failing to access Central Asian

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[38] See "International Energy Outlook 2006," U.S. Department of Energy, p.101. Available at http://www.eia.doe.gov/oiaf/ieo/index.html.

[39] Bush, Jason, "China and India: A Rage for Oil," *Businessweek*, September 5, 2005.

[40] "India In-Depth," Rigzone.com, May 4, 2006. Available at http://www.rigzone.com/analysis/rigs/insight.asp?i_id=211.

[41] Bloomberg.com, Market Data, Jul 13, 2006. See internet reference of http://www.bloomberg.com/markets/commodities/energyprices.html.

energy will endanger the economies of India and Pakistan at a time when neither can afford a pause in their growth.

How is the South Asia region going to connect to Central Asia and solve its energy needs to support its massive growth? Two alternatives have been advanced: the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline and the Termez-Kabul-Peshawar-India (TKPI) pipeline (See Appendix A for a map of the Pipeline Routes).

The Amu Darya basin of Uzbekistan contains significant reserves of natural gas. Adjacent areas of Afghanistan and Tajikistan remain less explored and have smaller proven natural gas reserves. However, estimates from Soviet times indicated that Afghanistan's Northern region may hold about 5 tcf of natural gas. These estimates were updated in 2006 by the U.S. Geological Survey, (USGS),[42] which showed that Northern Afghanistan holds 18 times the oil and triple the natural gas resources previously thought. This 2006 Survey by the USGS confirmed over 15.6 tcf of natural gas (possibly up to 36.5 tcf) and about 1.6 billion barrels of oil (possibly up to 3.6 bbo) in the Amu Darya Basin not even counting the vast reserves of Turkmenistan. USGS has not yet assessed all areas in the basin and may well discover additional reserves.

With the exception of a relatively small Turkmen pipeline to Iran, neither gas nor oil pipelines connect Central Asia to South Asia. Gas has been transported north to Russia by means of the Russian energy monopoly Gazprom. Finding alternatives to the Russian route is a compelling challenge if the landlocked Central Asian countries are to create anything matching the rates of economic growth that South East Asian countries have experienced.

The idea of building a gas and oil pipeline from Central Asia to South Asia has existed for some time. The original Trans-Afghan Pipeline was conceived in the early 1990s when international gas and oil corporations, along with the government of Turkmenistan sought to negotiate their way through very challenging security and political challenges, but to no avail.

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[42] United States Geological Survey, "USGS Assessment Significantly Increases Afghanistan Petroleum Resource Base," Release of March 14, 2006. Reston, VA. Available at http://pubs.usgs.gov/fs/2006/3031/

With the fall of the Taliban and improved security, the project was resuscitated. The Asian Development Bank supported a feasibility study to establish the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline. In May 2002, the heads of state of Afghanistan, Pakistan, and Turkmenistan met in Islamabad to restart the Natural Gas Pipeline Project. A ministerial level steering committee was formed later in the same year. The project aims to construct natural-gas transmission pipeline of 1,700 kilometers to transport 30 billion cubic meters of gas per year from Turkmenistan's Dauletabad gas fields to Afghanistan, Pakistan, and possibly to India. The route proposed is from Dauletabad to the Afghan cities of Herat and Khandahar and then to Multan in Pakistan. The ADB estimates the cost of the project to be $3.3 billion and projects that its implementation will take five years. The TAPI project, if constructed as planned will enable Afghanistan to reclaim its status as the landbridge between Central and South Asia.

The Turkmenistan-Afghanistan-Pakistan-India pipeline has been proposed to follow the route Dauletabad -Kandahar- Multan. However, there is an alternative route to connect the energy fields of Central Asia with the needs of South Asia: the Termez-Kabul-Peshawar-India route (TKPI). This pipeline would connect the southernmost city in Uzbekistan, Termez, to Kabul via the Mazar-i-Sharif and then would run from Kabul to Islamabad. Termez is 300 km from Kabul and Kabul is 200 km from Peshawar, which in turn is about 250 km from Islamabad. Extending this route to India would only require about 250 km via Lahore, the major economic center of Lahore-Amritsar. The distance of the TKPI route is only half of TAPI's 1,700 km. It will take the pipeline through much more populated areas but still reach the same destinations in Pakistan and India. Notably, it will also go through Kabul, brining additional benefits to Afghanistan's energy starved capital.

Benefits of Energy Corridors between Central and South Asia

No matter which route the pipelines take, it is obvious that Turkmenistan, Uzbekistan and the Northern territories of Afghanistan will help meet the growing thirst of South Asia for gas and oil. The cascading benefits of unlocking potentials in this manner should not be underestimated in terms of their actual economic, social and political impact. Pipelines will foster and

help create regional stability and security in a region that is much in need of both.

Both Turkmenistan and Uzbekistan will be able to demand from Pakistan and India higher prices for their gas and oil than they now get from Russia's Gazprom. Russia's monopoly over Central Asian exports of oil and gas has thwarted the region's economic growth. The combined Kazakh, Turkmen and Uzbek production of oil can double over the next 10 years; if even part of this crosses Uzbekistan to Pakistan and India, all will benefit.[43]

The recently discovered gas reserves in northern Afghanistan are of great significance to the country's future. The U.S. government's assessment concluded that the unit cost of producing gas from the Afghan plains would be very low. The only local market for this gas is Kabul, which is too small. However, the major energy firms would be interested in developing local Afghan pipelines if they could also be linked with the Uzbek gas reserves and with lucrative markets in Pakistan and India. Tariffs on such a pipeline to South Asia could pay for the pipeline, resulting in a costless delivery of gas to Kabul and Pakistan.

The construction of the gas pipelines could create substantial revenues for Afghanistan. It is estimated that if the pipeline to Pakistan existed today, and if Afghanistan charged world prices for transport of gas through its country, it would be earning about $1 billion to $1.5 billion in annual revenues from the gas pipeline tax alone. The Afghan Government could reap another $0.5 billion in revenues on the transport of oil from Central Asia to South Asia.[44] Pakistan would benefit too because it is not able to sustain the current demand in its domestic market and because it is transporting gas and oil thousand of kilometers inland from its ports. Further, India would find an additional source of energy and would diversify its ability to bargain for its growing needs.

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[43] Cassam, Mohamed, "The Termez-Kabul-Peshawar Energy Corridor," Prepared for the Afghan Minister of Finance, H.E. Hedayat Amin Arsala. Courtesy of the author. January 2, 2005, p. 7.

[44] Kaufmann, Klaus-Dieter and Feizlmayr, Adolf H. "Analysis pegs pipeline ahead of LNG for Caspian area to China," *Oil and Gas Journal*, 102(10), March 8, 2004, p. 58.

The proposed pipelines will also bring significant indirect economic benefits. They would create jobs, promote the construction of new and improved infrastructure, and increase the availability of electricity, gas, and oil to regional industries. Households along the length of the energy corridor from the Uzbek border to Pakistan would see their incomes rise. The pipelines represent an opportunity to have locals privately own small community power stations which can act as small energy generators providing the local populations not only with jobs but with cheap energy.

Winter heating is a particularly severe problem in Afghanistan. Existing diesel generators producing electricity could easily be converted to gas if gas were to become reasonably available. Such generators can double as space heaters. This space heating would come at zero cost by utilizing the otherwise wasted heat created by the generator. This use of heat from power generation is called "distributive energy". Distributive energy achieves a 60% to 70% rate of efficiency as compared with only 30% to 40% for central power plants.[45] Because of the severe winters in Afghanistan and the mountainous regions of Pakistan and India, this seemingly free source of energy can be promoted as an important benefit to the local population and as a result of the new pipelines.

Finally, high-speed fiber optic cables can be installed inside the pipelines. These cables are part of a high capacity telecommunication SCADA[46] backbone system that can modernize the region's communication systems, provide a mechanism for developing regional telecom "hubs", and be a source of revenue not only for the governments but for local and regional businesses.

Each of the routes discussed has economic and political advantages. For example, although the Termez-Kabul-Pesahwar pipeline (TKP) would only be half the length of the Dauletabad-Herat-Kandahar (DHK) route, it would not have access to the large Turkmen gas fields. Other factors make all of these projects demanding indeed. Security issues are prominent,

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[45] Cassam, Mohamed, "The Termez-Kabul-Peshawar Energy Corridor," Prepared for the Afghan Minister of Finance, H.E. Hedayat Amin Arsala. Courtesy of the author. January 2, 2005, p. 19.

[46] SCADA: Supervisory Control And Data Acquisition.

because either pipeline would traverse territories not yet fully stable and secured. In the DHK route, the pipeline would traverse mostly deserted regions in Afghanistan. Once the TKP route reaches Pakistan, it must traverse Baluchistan, which has been mired in local instability.

However, despite the known security issues, some concerns are overstated. Assuming wise revenue-sharing on the part of central governments, all local areas, whether in Afghanistan or Pakistan, would have a stake in the success of the pipelines. The pipelines and energy corridors as important sources of revenue, can be a considerable counterbalance to the scourge of drug trafficking affecting not only the region but the rest of world. The local, mostly very poor populations will see important improvements to their daily lives. A true economic alternative that can help in generating income for the poor, spur the development of small businesses and increase the central governments' revenues is of great value and needs to be pursued with zeal by all key participants. Such an important source of income would also greatly alleviate the cost of reconstruction assisting donors in establishing more economically sustainable solutions.

As a regional and global power, India especially has an important stake in assuring the development of such pipelines. However, India is also concerned about the security of gas and oil supplies emanating from routes through Pakistan. Pakistan and India are in the same camp when it comes to their deficient energy resources. Additional safeguards can be established to assure India further. This could come in the form of agreements among all parties, including Pakistan that the supply of energy from Uzbekistan or Turkmenistan can be stopped if there were an interruption of the flow of gas or oil to India from Pakistan. In addition, India and Pakistan could trade other forms of energy such as electricity where India generates and exports electricity to Pakistan. This way India would retain a bargaining power in terms of reducing the flow of electricity if other agreements are not sustained by Pakistan.

Benefits of Regional Trade in Electric Power

Central Asia is endowed with huge hydroelectric potential, while Pakistan and India both suffer from electricity shortages. Even Kazakhstan,

traditionally a supplier of electricity, is expected to turn into a net importer by the year 2020. The transport of electricity between suppliers and consumers in the region may also provide a catalyst to related development in the overall use of water resources.

At present, over 90% of the Afghan population does not have access to electricity. The little access that is available is sporadic and unreliable. The country lacks a national electricity grid and existing equipment is of poor quality. About 475 megawatts (MW) of electrical generating capacity existed before the Soviet invasion in 1979, while today only about 270 MW is available.[47] The need to re-build capacity is undeniable but it is also important to import more electricity from Afghanistan's neighbors to the north. Unfortunately the badly damaged transmission and distribution networks prevent this. The problem is acute in all Afghanistan's electricity–producing neighbors, as well as in Afghanistan itself. The recurring losses (called "technical losses") are in the range of about 18% to 22% of total revenues from energy for Uzbekistan, Tajikistan, Kazakhstan and Kyrgyzstan. In addition, non-technical losses (delivered but unbilled consumption and uncollected bills) can reach up to 18% for the same countries.[48] For Afghanistan, technical losses were estimated at about 25% in 2002 and non-technical losses had reached about 20%. Thus, over 45% of all electricity produced in the region is either lost or goes unbilled, a significant loss to the development of all countries involved.

In fact, Afghanistan has the potential to link key suppliers of electricity with key consumers in the region due to its vital geographic location and at the same time creating benefits to its own population. At a June 2006 meeting in Turkey, representatives of Tajikistan, Kyrgyzstan, Afghanistan and Pakistan signed an agreement to supply power from Tajikistan and Kyrgyzstan to

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[47] Breckon, Michael, "Afghanistan: Preparing the National Power Transmission Grid Project," Asia Development Bank. Project Number: 37118-01. Manila, Philippines. January 2006, p. 9. Available at http://www.adb.org/Documents/Reports/Consultant/37118-AFG/final-report.pdf.

[48] See the World Bank report "Regional Electricity Export Potential Study," Europe and Central Asia Region. Washington, D.C. December 2004, p. vi and pp. 38-39. Available at http://www.adb.org/Documents/Reports/CAREC/Energy/CA-REEPS.pdf.

Pakistan via Afghanistan.[49] However, the parties have yet to find the necessary financing, not to mention participants from the private sector. Problems also arise from the less than robust cooperation at the working level between the countries involved.

Today 35 percent of Kabul's electricity and 100 percent of Kandahar's emergency electricity is supplied by diesel generators.[50] This makes the capital of Afghanistan—one of the poorest countries—amongst the most expensive electricity per kilowatt city in the world. Better coordination among suppliers and consumers of electricity can contribute greatly to reducing the level of poverty in Afghanistan. At the same time it will offer alternatives to poppy production, thus helping stabilize the region. Nor would the stabilizing effect of Tajik and Kyrgz hydroelectric power be limited to Afghanistan. On 24 September, 2006, a power outage plunged Pakistan into darkness, leaving the entire country disconnected from its national electricity transmission system and revealing the vulnerability of its electrical networks. News reports confirmed that about 90 percent of Pakistan was affected by the power outage.[51]

In the near future it will be possible to speak of electricity corridors the way we speak today of road corridors. One example of such a corridor would originate with Kazakhstan's electric grid, cross the border with Kyrgyzstan, and then to Pakistan's grid through Afghanistan. Another example is the development of up to 1,000 MW of hydro-electricity potentially available in Tajikistan to export to Afghanistan and Pakistan. As one country uses excess supply to address energy shortages in a neighboring country, it will establish strong bonds of mutual support, to the ultimate advantage of their populations. It is estimated that the cost of power shortages to the industrial

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[49] "Agreement on power supply project from Tajikistan, Kyrgyzstan to Pakistan signed," PakTribune, June 16, 2006. Available at http://www.paktribune.com/news/index.shtml?147111.

[50] Paterson, Anna, "Understanding Markets in Afghanistan, A Study of the Market for Petroleum Fuels," Afghanistan Research and Evaluation Unit, October 2005, p. 4. Available at http://www.areu.org.af/index.php?option=com_content&task=view&id=32&Itemid=37.

[51] "Worst ever power outage hits country," Pakistan Observer, Islamabad, Pakistan. September 25, 2006. Available at http://archive.pakobserver.net/200609/25/.

sectors of India and Pakistan is an astounding 1.5% and 1.8% of GDP, respectively. Further, it is estimated that every unit of electricity from an outage results in an economic loss of five to ten times the cost of the electricity generated, due to wastage in material, labor and lost of production.[52] This economic cost results in perpetuating the effects of poverty and holds down the human development index for theses countries. However, via trading electricity, both countries would benefit greatly. If Pakistan were to sell about 3,000 MW of power to India, it would generate annual net earnings in the order of $160 million. It could also lead to a 10 percent decrease in Pakistan's defense expenditure, with an additional saving of $300 million. Thus, electricity sales could benefit Pakistan's coffers by up to $460 million a year.[53] These are significant savings that can be used to improve education and the health sector as well as in creating a more promising investment climate for Pakistan where Indian businesses can invest. Ultimately, the fruits of such cooperation are even greater as they have the potential of easing tensions between these two neighbors and would contribute to regional stability in this imminently important part of the world.

Conclusions

As described in this report, the landlocked — in some cases doubly landlocked — character of Central Asian countries has thwarted their economic development. High transportation cost, reduced competition, and long travel times create unemployment and stagnant living standards. Shipping costs for these countries are 50 percent higher than for coastal states, which reduce their trade by more than 80 percent.

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[52] Lama, Mahendra P, "Reforms and Power Sector in South Asia: Scope and Challenges for Cross Border Trade," Jawaharlal Nehru University, New Delhi, India. October 2002. p.17. Available at http://www.saneinetwork.net/pdf/SANEI_II/Reforms_and_PowerSector_in_SouthAsia.pdf.

[53] See the USAID report, "Economic and Social Benefits of Power Trade Between India and Pakistan," South Asia Regional Initiative for Energy Cooperation and Development. New Delhi. 2005. Available at http://www.sari-energy.org/initiatives.html.

At the same time, the benefits from increased trade, both regionally and globally are significant. Cline estimated that over fifteen years, global free trade could reduce the number of those living in poverty by 440 million people.[54] For Central Asian countries alone the United Nations argues that GDP could be *50 percent* higher after 10 years of continuous and comprehensive regional cooperation.[55] Inter-regional trade among these countries is relatively small. However, once the major regional economic powers of China, Iran, India, and Pakistan are added, intra-regional trade will also grow, to the point that it could reach more than half of total trading volume. *This particular characteristic is now recognized as unlike any other developing region and makes this geographic area quite unique.* There lies the exceptional opportunity to engage in closer regional cooperation to increase trade both within the region and with the major more distant partners via continental trade corridors.

Even though the landlocked countries of Central Asia cannot eliminate physical distances, they can gain significantly from reducing trade and transit costs. By coming together to reduce costs, partner countries can benefit at the same time by developing suitable transport infrastructures and investment strategies, and by working out common programs for facilitating trade. Emphasis must be placed on effective trade logistics and trade facilitation; customs and border management; and on directly engaging the private sector as a key partner in regional trade facilitation. In addition, it is crucial to engage the informal sector by promoting self-regulation of the hawala system, as one key catalyst, so that the hawaladars over time can participate in a wider range of more formalized financial activities, at the same time increasing their services to a wider population and helping to fuel an expanding trade-based economy.

As Afghanistan realizes its potential as a land-bridge to Greater Central Asia it will stimulate numerous investment projects in the region. Thus, the reconstruction of Afghanistan would become an integral part of a successful

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[54] Cline, William R. *Trade Policy and Global Poverty*. Center for Global Development, Institute for International Economics, 2004. Washington DC, pp.227-261.

[55] *United Nations Central Asia Human Development Report 2005*. United Nations Development Programme, New York, 2005, pp 205-212. Available at UNDP.org.

regional development strategy. The creation of a special trust fund dedicated to the development of regional initiatives with Afghanistan as a central focus but with direct and measurable benefits to regional players could greatly promote this end.

Our examination of the benefits from trade in the energy sector also demonstrates that Central Asia and South Asia can help to fulfill each other's needs. The proximity of supplier and consumer countries, the seasonal nature of hydroelectric power production, and the huge pull from the explosive economic growth in India and Pakistan, all set the stage for successful region wide trade in gas, oil and electrical energy. Impoverished populations in Afghanistan and Pakistan will benefit immediately. In particular in Afghanistan, where energy costs are among the highest of any country, the energy programs would not only create economic corridors and sustainable alternative sources of income against the threat from drug trafficking but also add much needed revenue streams for the state.

Finally, the development of road corridors will bring concrete benefits to all. Our examination of the ADB study showed that, with Afghanistan the central hub, the construction of North-South corridors to and from Central Asia can increase trade by as much as 15% or $12 billion if the new roads are matched by efforts to facilitate trade.[56] Employment in the region could increase by 1.8 million jobs, in addition to the creation of 15 million person-days of permanent employment for ongoing road and infrastructure maintenance. Reduced travel time will bring participating countries annual savings of over $1.7 billion and continental trade through new southern ports can be expected to increase by 80%, to $6.3 billion. As the benefits of the trade corridors are extensive and long-term relative to the total investment of only about $5.6 billion, the initiative has an undeniably compelling investment return. Donors and participant countries have an unprecedented opportunity to decisively engage in closer cooperation as it is a small price to pay for

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[56] Alamgir, Mohiuddin, "Report on the Economic Impact of Central-South Asian Road Corridors," Central and South Asia Transport and Trade Forum (CSATTF). Report prepared for the Second Ministerial Conference on Transport and Trade in Central and South Asia. Asian Development Bank, Manila, Philippines, March 3 and 4, 2005.

regional prosperity and for the creation of closer ties among nations leading to significant economic expansion, sustained stability and regional security.

Appendix A: Pipeline Routes Through Afghanistan[57]

[57] Source: Chander, S., "Technical Assistance for the Feasibility Studies of the Turkmenistan – Afghanistan – Pakistan Natural Gas Pipeline Project," Asia Development Bank. Manila, Philippines, December 2002, p.3.