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REGIONAL PROSPERITY IN SOUTH ASIA

OPPORTUNITIES AND CONSTRAINTS IN
ECONOMIC AND ENVIRONMENTAL DIMENSIONS

POLICY BRIEF

INDIA & PAKISTAN

CONTENTS

FOREWORD HAPPYMON JACOB	
EXECUTIVE SUMMARY TISHYA KHILLARE	1-3
INDIA & SOUTH ASIA IN EMERGING CONNECTIVITY FRAMEWORKS GULSHAN SACHDEVA	4-14
INDIA-PAKISTAN TRADE: THE BILATERAL AND REGIONAL CONTEXT FOR TRADE ENHANCEMENT AMITA BATRA	15-22
RESURRECTING INDIA – PAKISTAN TRADE NISHA TANEJA AND SAMRIDHI BIMAL	23-61
IMPACT OF POLITICS ON TRADE COOPERATION BETWEEN INDIA AND PAKISTAN AFAQ HUSSAIN	62-74
CHALLENGES IN PROMOTING BILATERAL TRADE IN PHARMACEUTICALS BETWEEN INDIA AND PAKISTAN REJI K. JOSEPH	75-86
INDIA, PAKISTAN AND THE FUTURE OF INTERCOUNTRY WATER SHARING: CONFLICT OR COOPERATION? MOHAN GURUSWAMY	87-96
PAKISTAN & INDIA: BRIDGING THE ENERGY DIVIDE LYDIA POWELL	97-111
INDIA – PAKISTAN ELECTRICITY INTERCONNECTION PROJECT: OPPORTUNITIES AND APPROACHES MAHENDRA P. LAMA	112-131

AUTHORS

FOREWORD

Initiated in the wake of the horrific Mumbai terror attacks of 2008, The Chao Track India-Pakistan dialogue has run for ten years now. It is easily one of the longest running and consistent Track-II dialogues in the region. Over the past decade, the dialogue has hosted and engaged with several hundred senior policy makers, former diplomats, military personnel, analysts, academicians, researchers, entrepreneurs and emerging leaders through its various activities.

The dialogue process has traditionally helped, albeit indirectly, the two establishments to understand each other better and formulate policies to resolve their outstanding conflicts. When the two governments refuse to engage each other, especially during times of crisis, the Chao Track attempts to keep a channel of communication open between the strategic communities of the two countries.

Most importantly, the dialogue has acted as a vital platform consistently available to interlocutors from either side in times of crisis. On such occasions, when any form of direct engagement between the two governments becomes temporarily impossible, participants from either side have found The Chao Track to be a useful platform to read each other's red-lines, assess the veracity of publicly-uttered political comments, and understand the role of domestic politics in the bilateral relationship.

The Economic Connectivity Dialogue which is held under the auspices of the Chao Track is a relatively new addition. Though it started as a platform to support Indo-Pak trade which happens to be an important confidence building measure, we at the Chao Track have realized the necessity for a platform which can take a closer look at issues including trade that affect the quality of life of people on both sides of the border as well as prosperity of the region as a whole.

South Asia is one of the least connected regions in the world and is home to a large majority of the world's poor. The intention of the Economic Connectivity Dialogue has been to take small collaborative efforts to ascertain if economic relations may be pulled out of the political logjam that we see today. This Policy Brief is one such step. It is our endeavor to bring to the fore issues on which cooperation is needed and perhaps even possible to achieve to the benefit of both countries.

The home-grown nature of the Chao Track with roots and traction in New Delhi and Islamabad, distinguishes it from most other similar initiatives. Its credibility also stems from the fact that it has managed to bring together

interlocutors from all hues of political and strategic spectrum. The Economic Connectivity Dialogue is no exception to this rule, and it has, over the past four iterations, brought together subject matter experts, policy makers and political leaders from India and Pakistan.

As we look forward to the next cycle of the Chao Track activities, we intend to involve more stakeholders and discuss several new challenges and issues on the India-Pakistan radar, both strategic as well as economic. We hope that our efforts will bring lasting peace, stability and prosperity to the South Asian region.

**HAPPYMON JACOB
HONORARY DIRECTOR**

EXECUTIVE SUMMARY

TISHYA KHILLARE

REALIZING THE POTENTIAL FOR REGIONAL PROSPERITY IN SOUTH ASIA

Though there lies immense potential for regional prosperity in South Asia, its foundation- economic connectivity is routinely held hostage to political equations between states, particularly between the two nuclear powers- India & Pakistan. In its latest report on regional trade in South Asia, the World Bank estimates that potential bilateral trade between India and Pakistan can reach an estimated \$37 billion a year from its current stagnant volume of \$2.5 billion. However, on August 6 this year Pakistan suspended all bilateral trade with India following the abrogation of Article 370 and 35 A in Jammu and Kashmir.

The lack of economic connectivity in South Asia has hampered regional growth, preventing the region from enjoying levels of prosperity that are possible to achieve and desired by its people. To unlock this potential, it is critical that a broad perspective on economic connectivity be adopted such that the closely linked nature of several different components of economic activity straddling national borders in South Asia is recognized. This perspective recognizes trade, intercountry water sharing issues, energy trade, cooperation over climate change adaptation, people to people contact as various cogs in the machine of economic connectivity. The Chao Track -India has grounded this policy brief in this holistic conceptualization of economic connectivity. The endeavour is to serve the critical purpose of conflict management through the creation of interdependencies, opportunities to cooperate over common issues, people-to-people contact and economic lobbies. Experts in the region feel that greater economic relations and regional connectivity has the potential to serve as confidence building measure in the region.

WORKING GROUP OF EXPERTS ON ECONOMIC CONNECTIVITY AND REGIONAL PROSPERITY

This policy brief is an outcome of the efforts of a working group of experts which was convened by Chao Track- India to contribute well researched commentaries regarding a gamut of issues that make up the economic connectivity conundrum in South Asia. This working group comprised of 8 policy experts, academicians and stakeholders from the field. The working group supported the development of this policy brief on regional prosperity in South Asia with a particular emphasis on issues concerning India - Pakistan economic connectivity. Experts received assistance and support from members of the Chao Track-India's Economic Connectivity Vertical. The purpose of compiling this brief is to juxtapose strategic and political challenges to regional economic connectivity with the liberal rationale of increased prosperity for lasting peace and stability.

Through this Policy Brief an attempt has been to keep conversations alive even when the political climate is difficult, to talk about issues which can enhance the quality of life of people on both sides of the border as well as issues on which collaboration is possible and even desirous.

Prof. Gulshan Sachdeva's piece on "India & South Asia in Emerging Connectivity Frameworks" brings out the geo-political implications of an increasingly present China in the region and presents details about the economic environment in which India and Pakistan are constructing their economic strategies.

Prof. Amita Batra's article, "India-Pakistan Trade: The Bilateral and Regional Context for Trade Enhancement" contextualizes India-Pakistan trade in the rapidly changing economic environment of today and provides insights on probable areas of collaboration to enhance bilateral trade between the two neighbours.

Prof. Taneja's in-depth analysis, "Resurrecting India - Pakistan Trade" uses the 'Trade Possibilities Approach' and 'Revealed Comparative Advantage' approach to estimate the potential of Indo-Pak trade. She has also conducted a scenario building exercise for possible trade resumption following the ban on Indo-Pak trade to realistically map out scenarios under which trade can resume between India and Pakistan.

Mr. Hussain in his article, “Impact of Politics on Trade Cooperation between India and Pakistan” highlights the ground reality and impact of a trade ban on trading communities to drive home the point that there is real human impact of trade being held hostage to politics.

Dr. Joseph’s piece on “Challenges in Promoting Bilateral Trade in Pharmaceuticals between India and Pakistan” focuses on one of the only sectors which has been excluded from the on-going trade ban- Pharmaceuticals. It provides recommendations on how the two countries may work together in this important sector.

Mr. Mohan Guruswamy’s commentary, “India, Pakistan and the Future of Inter-country Water Sharing: Conflict or Cooperation?” bring back the focus on a problem that is real and urgent- Climate Change and what it will portend for Indo-Pak relations w.r.t water sharing issues. It provides suggestion on what may be realistically done by the two neighbours to avoid conflict over the sharing of waters of the Indus river system and foster cooperation aimed at climate change adaptation, efficient water sharing and management.

Ms. Powell’s commentary, “Pakistan & India: Bridging the Energy Divide” discusses the need to shift perceptions about energy trade in the region through a narrative change, further elucidating the material and strategic benefits of energy trade to the two countries.

Prof. M.P. Lama in his article on “India - Pakistan Electricity Interconnection Project: Opportunities and Approaches” addresses the importance of energy interconnection in the region. He further provides a cost and benefits analysis of various models of energy connectivity relevant to the region and steps to be undertaken to realize energy interconnection in South Asia, especially between India and Pakistan.

INDIA & SOUTH ASIA IN EMERGING CONNECTIVITY FRAMEWORKS

GULSHAN SACHDEVA

In the emerging Asian and Eurasian economic architectures, almost every important country has its own connectivity plans, either individually or as part of multilateral frameworks. Many multilateral institutions and think tanks including the World Bank, Asian Development Bank and the Centre for Strategic and International Studies (CSIS) of the US are tracking these designs systematically. Although the Chinese One Belt One Road (OBOR) or Belt and Road Initiative (BRI) has dominated discussions in the last few years, there are many other important initiatives which are at different stages of implementation.

Since 1993, the Transport Corridor Europe-Caucasus-Asia (TRACECA) International Transport Programme involving the European Union (EU) and 14 other countries mainly from the Caucasian and Central Asian region is promoting Euro-Asian transport links. The US announced its New Silk Road Strategy (NSRS) in Chennai in 2011. The idea was mainly to link Central Asia and South Asia through Afghanistan with trade, transit and energy networks. Though conceptually sound, this initiative failed to take off because of lack of funding support from the US. Russia since 2015 is pushing for Eurasian Economic Union, mainly in the former Soviet space. The Chinese BRI of linking Asia and Africa with Europe through a network of various transportation corridors is already reshaping the geoeconomics and geopolitics of the whole Eurasian region and beyond. In

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2019, the EU also announced its own strategy of connecting Europe and Asia based on the principles of 'sustainable, comprehensive and international rules - based connectivity'. In addition, countries like Japan, South Korea, Turkey, Iran, India and many others have their own connectivity plans.

All major connectivity plans have various dimensions. Whatever official announcements indicate; all of these plans have both economic as well as geopolitical implications for the region. All South Asian countries are participating in these plans at varying degrees. Afghanistan, India and Pakistan along with others participated in a few projects of the New Silk Road Strategy. This included Turkmenistan- Afghanistan - Pakistan - India (TAPI) gas pipeline, CASA1000 project etc. Except India, all South Asian countries are also participating in the Chinese BRI. Afghanistan is also keen to be part of the BRI. All these developments raise some fundamental questions. First, to what extent these plans are competitive and complementary? Second, to what extent, BRI is affecting the South Asian region? Third, why some of them are attracting more attention than others? And finally, what these developments mean for India, South Asia and India-Pakistan relations? This paper has tried to answer some of these questions.

INDIAN ECONOMIC AND STRATEGIC ENGAGEMENTS

India's economic and security engagements with the outside world have undergone a serious transformation in the last 25 years. India's emergence as a significant international player is mainly due to changes in the global and Asian balance of power, as well as the intensification of global integration, technical changes and increasing trends toward regional economic integration. India itself is meanwhile making a successful transition from an inward-oriented economy to a more globally integrated economy. As a result, India has become one of the fastest growing economies of the world in the past two and a half decades. Apart from expansion, the Indian economy is also being diversified significantly. Traditionally, the economy was dependent on markets in Europe and the US. In the last two decades, there has been a rapid integration of the Indian economy within Asia. Despite some serious challenges like global economic slowdown, energy security, poverty, infrastructure, regional disparities and internal security, there are strong indications that rapid growth will continue. The main drivers of

growth are going to be favourable demography, a relatively large middle class, a strong information technology sector and infrastructure-focused investment. Although growth in the last twenty years has raised expectations, global circumstances are less favourable today. As a result, India is adapting itself simultaneously to economic globalization and to the shifting balance of power both globally and in Asia.

The strategic consequences of India's improved economic performance are clearly evident. Growth and outward orientation has helped India to reorient its traditional partnerships with the developing world as well as forge new relationships with major powers. From the policy of 'non-alignment', New Delhi is pursuing a policy of 'multi-alignment'. India has signed strategic partnership agreements with more than 30 countries. Similarly, India has already signed more than fifteen free trade agreements bilaterally or multilaterally. In addition, about a dozen free trade agreements are at various stages of negotiations including with the European Union (EU). In addition to these arrangements, India has been playing an important role in the Brazil- Russia- India- China-South Africa (BRICS), India-Brazil-South Africa (IBSA), Russia-India-China (RIC) and Group of 20 (G20) forums. Within the framework of South -South Cooperation, India has also become a significant player in global development architecture providing assistance through lines of credit, capacity building and grant assistance projects in the neighbourhood and in Africa.

Encouraged by growth, rising profile and increasing economic linkages, New Delhi has also undertaken major connectivity projects through International North - South Transport Corridor (INSTC), India - ASEAN connectivity and Asia - Africa Growth Corridor. All these initiatives are possible only due to relatively high growth in the last 25 years. India has

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also tried to collaborate with other important players viz Russia, Japan and the US for these connectivity projects. However, story is different when it comes to the Chinese BRI.

CHINESE BRI AND SOUTH ASIA

It is becoming clear that China's ambitious BRI, linking Asia and Africa with Europe through a network of various transportation corridors could fundamentally reshape the geo-economics and geopolitics in many regions including South Asia. Out of the original proposal of six international corridors, two corridors - the China-Pakistan Economic Corridor (CPEC); and the Bangladesh-China-India-Myanmar Economic Cooperation (BCIM) were directed towards South Asia. Another two viz. the new Eurasia Land Bridge; China-Central Asia-West Asia Economic Corridor had indirect bearing on South Asia. Bangladesh, Pakistan, Maldives, Nepal and Sri Lanka are already participating and Afghanistan is keen to be part of the BRI. Of late there has been some discontent, particularly in Maldives. Concerns about debt burden has increased, still the attraction of the BRI in most South Asian countries has not dimmed.

Starting from in 2015, the original \$44 billion (later enhanced to \$62 billion) CPEC has been a flagship BRI project. As per latest information, a large part of this amount (more than \$30 billion) will be spent on energy related projects. The rest of projects are in the road and railway infrastructure and Gwadar port. The government of Pakistan expects that CPEC projects will generate more than 17000 MW of electricity; modernize roads and railways; develop Gwadar port, four urban mass transit projects, nine special economic zones and connect China and Pakistan with fibre cable. Finances are mix of grants, concessional loans, zero interest loans, partnerships and FDI.

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Since 2016, Bangladesh has emerged as the second largest recipient of Chinese BRI investments, after Pakistan. With about \$38 billion overall investment China is already the single largest investor in Bangladesh. Various reports indicate that only BRI projects may go up to \$40 billion. Already about \$10 billion worth of infrastructure projects are being implemented. These include Karnaphuli Multi-Channel Tunnel Project, the Chinese Economic and Industrial Zone, the Padma Bridge rail link, Payra Power Plant, the eighth China Bangladesh Friendship Bridge and the International Exhibition Centre. Some of the projects like multipurpose Padma bridge project or Rampal coal power plant which were earlier declined by the World Bank or western funders because of environmental issues or corruption are now being implemented with Chinese money.

In Sri Lanka, China has financed projects close to 8 billion under BRI. Major projects include Colombo International Finance City, Hambantota Port, Colombo Port expansion, Mattala Rajapaksha International Airport (MRIA) in Hambantota and Matara Beliatta railway expansion. BRI critics have used Hambantota port and airport projects as examples of debt trap and failed white elephant projects. In 2017, Sri Lanka formally handed over Hambantota port to Chinese firm on lease for 99 years.

Nepal signed framework agreement on the BRI with China in 2017. It identified 35 projects under the initiative and expected about \$10 billion investment. Later a reduced list included nine projects – upgrading the Rasuwagadhi-Kathmandu road; Kimathanka-Hile road construction; road construction from Dipayal to the Chinese southern border; the Tokha-Bidur road; the Galchhi – Rasuwagadhi – Kerung 400kv transmission line; the Kerung-Kathmandu rail; the 762MW Tamor hydroelectricity project; the 426MW Phukot Karnali hydroelectric project; and the Madan Bhandari Technical Institute. Out of these projects, only a feasibility study on Kurang – Kathmandu railway line has been completed so far. This project was also listed in the new list of projects released at the end of the second BRI Forum. In Maldives, China is funding a few big infrastructure projects under BRI. The list includes the Friendship Bridge linking Male to Hulhule Island and a 1,000-apartment housing project on artificial island Hulhumale. The new government in Male now wants to renegotiate the terms of existing debt and some of the proposed projects negotiated under former president Abdulla Yameen

These included geopolitical and developmental implications of the initiative for India. Because of the overwhelming emphasis on the China-Pakistan Economic Corridor (CPEC) in Indian discussions, geopolitical dimensions of the BRI rather than broader developmental aspects mainly shaped the perceptions. The major focus has been on the geopolitical impact of infrastructural projects in the neighbourhood and in the Indian Ocean region. Assessments of the economic impact of the initiative beyond the CPEC are rather limited. Of late, the political economy dimension of the project is figuring prominently in discussions. Here, the emphasis is more on evaluating political, social, environmental as well as sustainability issues concerning Chinese funded projects. Developments in broader India-China ties (increasing trade deficit, dokhlam standoff etc.) have affected Indian perceptions. India's participation in the AIIB, SCO and BRICS had relatively little impact on New Delhi's perception about the BRI.

Although a large number of independent analysts have argued for a selective participation in the BRI, this has hardly been reflected in government policy. As the BRI progresses, the Indian focus is more on pursuing its own connectivity plans (individually or with other partners) and also on showing how some of the BRI projects are creating difficulties for recipient countries. From earlier geopolitical and developmental aspects of the initiative, the focus is now shifting towards a political economy analysis of participating countries. Increasing difficulties faced by BRI projects in terms of debt trap, corruption, political controversies, negative environmental implications and overall sustainability of projects are being analysed.

At the BRI-2 meeting held in April 2019, China removed the BCIM-EC from the new list of 35 corridors. Instead, China-Myanmar EC and Nepal-China

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t the BRI-2 meeting held in April 2019, China removed the BCIM-EC from the new list of 35 corridors. Instead, China-Myanmar EC and Nepal-China Multi-dimensional Connectivity Network (including railway project) are listed. Interestingly, now the International North-South Transport Corridor (INSTC) is part of the new BRI list. Established much before the BRI in 2000, India along with Russia and Iran are founding members of the INSTC. India has not formally responded to this new listing. If there were any alternative Indian plans to the BRI, the Chabahar port linked with the INSTC was going to be the central pillar of that strategy. Now the INSTC itself is listed as a BRI project. For India this is more serious than the BCIM listing. New Delhi will have to work with Moscow and Tehran to resolve this issue. In the current geopolitical environment, however, both of them may not have any problem with listing INSTC as a BRI project.

Despite not endorsing the BRI, New Delhi has participated in the Asian Infrastructure Investment Bank (AIIB) from the beginning. After China, India is now the second largest shareholder in the bank. It has approved 13 projects with close to \$3 billion investment in India. The official explanation of New Delhi's participation in the AIIB is that India was approached for this initiative from the very beginning, which made all the difference.

Before the announcement of Bangladesh-China-India-Myanmar (BCIM) Economic Corridor as one important component of the BRI, the four countries were already working to materialize sub-regional cooperation for years. To integrate East and North-Eastern India with South West China along with two least developed countries; Bangladesh and Myanmar, a Track II BCIM regional Economic Forum was established in 1999 in Kunming. In 2013, the concept was officially endorsed and participating nations agreed to establish a Joint Study Group (JSG) to

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strengthen connectivity, trade and other linkages through the development of a BCIM Economic Corridor (BCIM-EC). Along with the CPEC, however, when the BCIM-EC was also declared as an important part of the OBOR/BRI initiative by China, it created difficulties for Indian policy makers. Although a few meetings of the JSG have taken place, progress is very limited. Since the BCIM was conceived much before the BRI, many argue that it should not have been subsumed with the larger Belt and Road strategy. The main Indian objective behind initiating BCIM-EC was to develop infrastructure and markets for its North-Eastern region through sub-regional cooperation. In this way, these relatively isolated Indian States could take advantage from its Look-East/Act-East Policy. Jointly building missing infrastructural links in the sub-region has been one of the major objectives of the initiative. Once parts of the larger BRI initiative, it actually could have given a new push to economic development in the North-East. As the BCIM also became part of larger discourse on the BRI and the CPEC, the progress on this front has also stalled.

CONNECTIVITY DESIGNS AND INDIA

Pakistan Ties In the last 25 years, India's economic relations with major Asian countries, particularly with China and ASEAN nations have made significant gains. In an evolving Asian economic architecture, however, India will not be able to play its role in its full potential if its economic relations with the Pakistan and Central Asian Region remain marginal. As a result, New Delhi needs to develop an economic policy framework for Eurasia that would allow the whole region, including Pakistan and Afghanistan, to be integrated in a mutually beneficial partnership. This framework will also improve India's energy security, as India may finally gain access to some of the energy resources from Central Asia. It also has the potential to fundamentally reorient India's sea-based continental trade. Simultaneously, it can generate tremendous opportunities for Pakistan, Afghanistan and the Central Asian region. The growing realization of these opportunities in the past had influenced policy makers not just in India, but also in the entire region including some sections in

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Both Afghanistan and Pakistan can play important role in Indian connectivity with the entire Eurasian region. To bypass Pakistan, India has been working on different projects with Iran including the Chabahar port. However, sustainability of this strategy has been problematic because of tensions between the US and Iran. Relative stability in Afghanistan and working economic ties with Pakistan has the potential to alter the nature and character of India's continental trade. So far majority of Indian trade is conducted through sea. Looking beyond Afghanistan - Pakistan and

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Central Asia, it is clear that India trades a great deal with other CIS countries, Iran, and of course with the European continent. Earlier estimates by the author suggest that even if 20 percent of this trade is conducted through road, US\$ 80-100 billion worth of Indian trade would be passing through Pakistan, Afghanistan and Central Asia. With improvement in India-Pakistan relations, an important portion of Indian trade (particularly from the landlocked Jammu & Kashmir) will be moving through Pakistan and Afghanistan. With the possibility of this trade passing through Afghanistan and Central Asia, most of the infrastructural projects in the region will become economically viable. With Indian continental trade moving through this region, Pakistani economy is also going to benefit in a major way. Many within Pakistan fear that with Indian goods moving to Afghanistan and Central Asia, markets for Pakistani products may be eroded. However, even without Indian competition, Pakistan is not able to export much to Central Asia. It has significant exports only to Afghanistan and a major portion of those exports are unlikely to be affected. In fact, with major infrastructural development and movement of goods and services, both India and Pakistan could be important economic players in Central Asia. At the moment both are insignificant players.

CONCLUSION

In the area of connectivity, India is trying to build its own narrative on the basis of many strategic partnerships and FTAs it has signed in the last 15 years. It is also putting together its development cooperation engagements, Look-East (now Act-East) policy, Connect Central Asia, SAARC, IOR-ARC, India-Africa Dialogue, engagements in Afghanistan and West Asia as into the narrative. These are linked with the International North South Trade Corridor, Asia Africa Growth Corridor, SAGAR initiative, Project Mausam, Make in India, Digital India among others.

Directly or indirectly, these are also Indian responses to the Chinese BRI, which is also a combination of a series of initiatives of the recent past put together into a single tale. However, is it really desirable? China had a different compulsion. Over the last 25 years, it had created huge capacities to build infrastructure along with foreign exchange reserves. With the slowing down of its economy, those capacities are no longer fully needed at home. Therefore, Chinese companies were looking for new outlets for their already built capacities. There are, of course, added

risks to these investments..

For India, there is a huge task of first building its own infrastructure in the next two decades. Moreover, these big initiatives create geopolitical anxieties. One can already witness disquiet in India, Japan, South-East Asia, Europe and the US about China's designs. This is exactly what happened when Washington announced the New Silk Road Strategy in 2011. Russia, China and Iran opposed it. Similar things are happening with the Russian-designed Eurasian Economic Union (EAEU) where Europe and the US are looking at it as a Russian design to further dominate the former Soviet space. Both Moscow and Beijing have made political statements about integrating the OBOR with the EAEU. It is not clear, however, how these two could be integrated. India is now part of the Shanghai Cooperation Organisation. It also hopes to connect with the EAEU. So, New Delhi will have difficulty in opposing some of the BRI initiatives when they also become agendas of these organisations. China is keen to get India on board for some projects, where Indian trade volumes and linkages with the Indian market are crucial. There will always be an attraction for New Delhi to announce an international initiative to match the BRI. However, the wise thing would be to integrate some of the BRI's initiatives into its own plans, particularly in Central Asia or in Southeast Asia. In the medium term, Chahbhar and Gwadar ports could become complementary rather than competing ports. This will also help India-Pakistan and South Asian region politically and perhaps will help build an integrated emerging Asian economic architecture.

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INDIA-PAKISTAN TRADE: THE BILATERAL AND REGIONAL CONTEXT FOR TRADE ENHANCEMENT

AMITA BATRA

The present India-Pakistan trade scenario is undoubtedly exceptional. Conflict has been the predominant characteristic of the bilateral relationship in 2019 and that has automatically found a reflection in the bilateral trade and economic relations. While India-Pakistan trade has now, for long been, significantly short of potential, the year has been marked by specific policy actions to restrict trade and in fact, use trade instruments as an expression of official displeasure in the event of conflictual events. A series of measures starting with India imposing import duty of 200% on imports, increase in basic customs duty on certain goods imported from Pakistan accompanied by the withdrawal of MFN status were announced post Pulwama. Later in the year, Pakistan announced suspension of all trade with India following developments relating to J&K within India. Naturally, therefore bilateral trade plummeted by huge proportions. However, given that bilateral trade between India and Pakistan is marginal, the reduction in trade does not amount to much in terms of impact on either country's total trade. The circumstances though, provide a context for reflection on the proposition that trade induced interdependencies can become the basis of peace in the longer run. This has been the experience of many countries in the European Union, ASEAN etc. that may have at some stage been involved in strategic rivalrous behavior.

"Given that bilateral trade between India and Pakistan is marginal, the reduction in trade does not amount to much in terms of impact on either country's total trade. The circumstances though, provide a context for reflection on the proposition that trade induced interdependencies can become the basis of peace in the longer run."

It is well known and accepted that trade is a means to enhance consumer choice, employment opportunities, incomes and hence has associated welfare gains. It is therefore only natural to expect that national leaders of trading nations would hesitate to initiate or persevere with conflict situations among themselves. For this proposition to hold true, however, apart from the assumption that “utility maximizing agents are conflict averse because they realize that conflict inhibits commerce” it is necessary that trade attain a certain significant level which in turn would require a certain prior attainment of a “threshold level of peace”. In case of India and Pakistan, the threshold level of peace has been hard to achieve as conflict between the two nations has shown an element of continuity that has persisted even when there have been attempts to establish CBMs. In fact, periods of CBMs have often been the dyad has also experienced some of their most intense conflicts. This has been evident in the decades of the 1980s and most notable in case of the Kargil episode in 1999 (Batra, 2013). So that, persistent conflict contributes to building up expectations of conflict even during relatively normal times. The added cost of these expectations is in the form of “anticipatory conflict” and its role in depressing bilateral trade. There is an “ex ante” reduction in trade as firms anticipate conflict owing to the state’s conflictual relations with the trade partner. In such cases the expected return on capital and other commercial transactions is much lower than potential. Furthermore, anticipated conflict and the associated uncertain political environment also directs trade away from risk prone trade partners to “safer” trade partners. Often this may entail higher transport and transaction costs but also directs trade away from more efficient to less efficient producers (Batra, 2013). This is true of the India –Pakistan dyad where bilateral trade constituting less than 1 per cent of India’s total trade and a little over 2% of Pakistan’s total trade, is significantly less than potential and restricted to very few items. Pakistan has preferred to import commodities, except in times of food emergencies, from distant

"Anticipated conflict and the associated uncertain political environment also directs trade away from risk prone trade partners to “safer” trade partners. Often this may entail higher transport and transaction costs but also directs trade away from more efficient to less efficient producers."

partners rather than India citing the trade deficit as a reason. The larger trade deficit with China though has not deterred Pakistan from entering into a free trade agreement with China. Bilateral trade undertaken on informal basis, through circuitous routes and via third countries is further evidence of this friction laden relationship impacting formal official trade. Many of these channels have in the past and may continue even now in times of trade suspensions or alongside implementation of restrictive trade instruments.

A second factor, that needs due recognition in any discussion on trade enhancement with Pakistan is the internal economic situation in Pakistan. After reasonable growth of around 5percent in 2017 and 2018, Pakistan economy has seen a significantly reduced growth at a little over 3 percent in 2019. The real GDP is projected to fall further in financial year (FY) 2020 as authorities continue to tighten fiscal and monetary policies to correct the internal and external imbalances[i]. The observed higher growth of the earlier years largely on account of large investments from China under the CPEC combined with fiscal profligacy meant that Pakistan incurred a huge deficit on the both internal and external front. Consequently, Pakistan had to approach the IMF for a bailout loan with its accompanying structural adjustment stipulations. Secured earlier in the year, this 39-month bailout loan of \$6 billion is the 13th time since the 1980s, that Pakistan has approached the IMF[ii]. As stabilization measures to address the twin deficits such as exchange rate depreciation of over 25 percent, developmental expenditure cuts to correct fiscal imbalances and increased energy prices- were undertaken, both the demand and supply remained depressed. The consumption growth and industrial sector registered a decline relative to previous year growth rates and inflation increased to over 7 percent. The year has seen Pakistan's current account deficit position has since improved and international reserves are better placed owing to increased remittances from US, Malaysia and the GCC countries. Growth is expected to pick up only gradually in FY 2021 and if macroeconomic and external demand conditions continue to improve and the structural adjustment package with regard to fiscal management and enhanced competitiveness takes effect[iii]. Other than this, Pakistan has a narrow tax base with only 1percent of Pakistanis paying their taxes. Pakistan has one of the lowest tax-GDP ratios in the world. The non-developmental expenditures are high and the largest component of this, military expenditure, has little chance of rationalization given military's stronghold on the government. The newly

formed committee called the National Development Council to oversee Pakistan's economic growth strategy has the army chief as its member, apart from key cabinet ministers. Pakistan has also been listed in the "grey list" of the Financial Action Task Force^[iv] (FATF) for its inability to fulfil most of the conditions laid down by the FATF with respect to combating terror financing. In October 2019, Pakistan was given a stern warning as it had addressed only 5 out of the 27 - point action plan given to it for controlling funding to terror groups. Pakistan has been given time till February 2020 to take action or else it will be put on the "Black List". In case Pakistan graduates to the "Black List", it will find it difficult to access international financial markets and funding sources and organizations.

Other than the IMF bailout package, the Pakistan economy has been able to get financial assistance from countries like Saudi Arabia, with which it has had long standing relationships in terms of oil imports, investments and financing educational institutions. In this particular crisis, Saudi Arabia has provided assistance to Pakistan in the form of \$3 billion deposit in balance of payments aid and one year of deferred payments facility for oil imports worth \$ 3 billion. The assistance was given in the form 3 tranches of \$1 billion each at a concessional rate of interest of 3.18 percent. A petrochemical complex is also expected with the Saudi financial investments as are investments in other areas. In addition to Saudi Arabia, Pakistan's other longstanding friendly nation, UAE reportedly also finalized a \$6.2 billion aid package in January 2019 to help it tide over the Balance of Payment crisis. The assistance package was in the form of part cash deposit and part as deferred payment for oil supplies. In addition, Pakistan has also been able to get a \$1.5 billion trade finance from the International Islamic Trade Finance Corporation. The three packages together cover about 60% of oil and gas import bill for Pakistan.

The biggest and most prominent financial support to Pakistan even before the economic situation had worsened has been in the form of large investment that have flowed into Pakistan from China for the China Pakistan Economic Corridor (CPEC). Launched in 2015, the CPEC traversing 2700 kms from the Pakistani Arabian sea port of Gwadar in Balochistan along the Karakoram Highway through the Khunjerab Highway in Gilgit-Baltistan before crossing over to Kashgar prefecture in China's Xinjian region, has been undertaken as part of China's Belt and Road Initiative (BRI). The CPEC comprises a set of projects under the BRI

financed by investments, loans and grants amounting to over \$60 billion. The emphasis in Pakistan is on projects in the realm of energy, transport infrastructure, industrial development and the strategically located Gwadar port in Balochistan. The Pakistan government then and now have projected these investments and financing as the lifeline to the economy considering that the priority projects are largely aimed at the critical weaknesses of the Pakistan economy-energy and infrastructure. Notwithstanding, some internal debates on the differential distributional benefits of the projects across different provinces, opacity of financing modes, environmental implications of coal projects, displacement of local population and limitations of debt repayment ability of the Pakistan economy, the CPEC is considered as strengthening Pakistan economy while simultaneously deepening Pakistan-China economic relationship. The relationship has earlier been defined by the China-Pakistan FTA[v] even while bilateral trade remains hugely in favour of China and bilateral trade deficit for Pakistan has tripled over the last five years to reach \$12 billion in 2017[vi]. The FTA is now poised for a review to include greater concessions from China for the Pakistan industry.

Of relevance and interest to India is the fact that Pakistan aims at deepening its economic relationship with China even when there is a growing deficit on the trade front and trade remains lopsided and in favor of China. It is this very same reason of the possibility of enlarged deficit that has been the basis of Pakistan's persistent denial to give India the MFN treatment and to continue to trade with India on a positive list basis even when as a signatory to the SAFTA, it was committed to trade on a negative list basis. More recently, when the negative list agreement has been accepted by Pakistan in 2012, it continues to maintain a large number of commodities, about 1200, on this list. Unsurprisingly, therefore bilateral trade has remained small and below potential.

"Of relevance and interest to India is the fact that Pakistan aims at deepening its economic relationship with China even when there is a growing deficit on the trade front and trade remains lopsided and in favor of China."

In fact, the regional context has been altered to a large extent by Chinese investment in ports across the South Asian region as well as increased trade with South Asian countries. In the last five years, China has emerged as the second largest or sometimes has even replaced India as the largest trading partner for some South Asian countries. In that sense, India has had to contend with the presence of an alternative power in the region. It is however also true that this altered regional scenario has given the smaller countries greater options for commercial and business opportunities. The bargaining strength of South Asian economies vis a vis India has increased. But, at the same time it needs to be recognized that while smaller economies stand to benefit from this competing power regional scenario, they also continue to remain cautious of availing benefits from China. Recent episode of Sri Lanka handing over the Hambantota port with a 99-year lease to China as a consequence of its inability to repay its loan to China has been an eye opener for others in the region. While India has increased its soft loans and credit lines to smaller countries of the region, the conflictual relationship with Pakistan does not allow for such flexibilities and alternative modes of concessional commercial transactions.

In case of India-Pakistan trade relationship, it also needs to be noted that not only is bilateral trade small, but it is also restricted to very few commodities that occupy a major share of the total bilateral trade. So, while a major share in Pakistan's imports from India is cornered by cotton, India's imports from Pakistan predominantly include fruits and nuts, cement, leather and textiles and clothing. Continued trade on these few primary commodities may not necessarily provide the means to establish a route for enhancement of bilateral trade. Serious efforts will have to be made to identify possibilities such that trade creates sufficient business stakes and hence the interdependencies necessary to stabilize the bilateral economic relationship and make it the harbinger of peace

"The bargaining strength of South Asian economies vis a vis India has increased. But, at the same time it needs to be recognized that while smaller economies stand to benefit from this competing power regional scenario, they also continue to remain cautious of availing benefits from China."

for India and Pakistan and for the region as a whole.

In the context, the following may be useful to consider as way forward for bilateral trade enhancement between India and Pakistan.

- Undertake detailed (HS-6 digit) studies in specific sectors to identify complementarities for creation of production networks in the region. Textiles and clothing[vii] are the most obvious sectors given the presence of the sector in country export profile. Other sectors could include: Pharmaceuticals, food and agriculture products (beyond stabilization trade) (Zaidi et al, 2017). More studies should be undertaken to identify sectors beyond these traditional sectors using technical methodologies but perhaps also involving businessmen from both countries, and undertaking survey-based studies of informal trade and trade through third countries. As part of these studies, the option of means to re-route these commodities through the formal routes should be explored at the business and government level. Joint-collaborative studies and working groups should be set up to resolve the issues of NTBs, standards, duties.
- As MNCs play an integral role in the integrated production networks (IPNs), set up/ encourage mechanisms to make possible connecting with third country MNCs operating in the two countries, as for example Japanese companies in the automobile sectors (Zaidi et al, 2017).
- Establish trade corridors, initially as extension of the integrated checkpoints across land borders with special trade facilitating policies.
- Alongside the above it also needs to be emphasized that Pakistan needs to evolve a sustainable growth path and indigenous industrial/ manufacturing sector. A more diversified industrial base will automatically trigger Pakistan business to look for attractive markets, including India.

"More studies should be undertaken to identify sectors beyond traditional sectors using technical methodologies but perhaps also involving businessmen from both countries."

- [i] Pakistan Overview: World Bank Group-www.worldbank.org,
- [ii] Pakistan and IMF have signed 22 agreements for loan since 1958, 10 programmes under the Poverty Reduction Growth Trust (PRGT) and General Resource Arrangement (GRA) of the IMF and 12 bailouts.
- [iii] Pakistan Overview: World Bank Group, www.worldbank.org
- [iv] An inter- governmental body established in 1989 to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing, and other related threats to the integrity of the international financial system.
- [v] Signed in 2006
- [vi] International Crisis Group: China-Pakistan Economic Corridor: Opportunities and Risks, June, 2018.
- [vii] Refer to the technical exercise undertaken in Batra (2013) for the sector. A similar exercise with latest data would be useful starting point in this context.

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RESURRECTING INDIA – PAKISTAN TRADE

NISHA TANEJA AND SAMRIDHI BIMAL

In the last decade, the world has seen two major changes towards globalization – increased number of free trade agreements and increased connectivity to reduce transaction costs of trading.

Regional trade agreements have been an important instrument in achieving the goal of economic integration across the globe. Regional trade agreements have continued to flourish with newer formations set in the context of the ongoing fourth industrial revolution with a much wider scope to encourage the free flow of goods, people, services and capital. For instance, the Comprehensive and Progressive Agreement for Trans – Pacific Partnership (CPTPP) concluded in 2018. Physical connectivity for transporting goods and services has also acquired a new dimension with several global initiatives. China's Belt and Road Initiative (OBOR) seeks to connect countries across the Asia-Pacific , Africa and Central and Eastern Europe. Similarly, the Asia Pacific Economic Cooperation (APEC) has prepared the connectivity blueprint for 2015-2025. Similarly, the 'Quad' countries namely India, Japan, Australia and the US are in the process of developing an Asian Connectivity Framework in the Indo-Pacific region.

Against this global scenario, South Asian regional integration continues to be at abysmally low levels. Intra – Regional trade continues to range

""In the last decade, the world has seen two major changes towards globalization – increased number of free trade agreements and increased connectivity to reduce transaction costs of trading. "

between 3 – 5 percent compared to 50 percent in East Asia and 64 percent in Europe (World Bank 2018; World Economic Forum 2019). The countries have also failed to grant transit rights to each other, thus inhibiting them from moving goods seamlessly with the region and beyond. One of the major reasons for low trade under the South Asian Free Trade Agreement (SAFTA) has been the restrictive trade and transport arrangement between two of its largest economies – India and Pakistan, largely a result of the strained political relations between them. In an era of increasingly integrated economies, India and Pakistan trade relations are currently at their lowest ebb with virtually no trade between the two economies. In 2019, the two countries imposed extremely restrictive trade measures on each other – perhaps the worst in the last three and a half decades. Not only do the two countries pose a threat to the realization of SAFTA goals, but they also constrain each other from connecting with the rest of the world through each other’s territories.

In a highly interdependent world today, India and Pakistan stay isolated and are unable to reap the benefits of globalization. The costs of non-cooperation are higher than ever before and delays in resuming normal trade relations will raise the costs further. Even though trade has been held hostage to political relations, improved trade can generate economic interdependencies and bring greater economic benefits to both countries. Moreover, trade could create avenues for stakeholders in the two countries to engage with each other which could serve as an important channel for peace.

Historical evidence suggests that even when drastic trade measures have been adopted, trade has resumed. Most notable being the resumption of trade between the two countries after a hiatus of nine years following the India-Pakistan war in 1965. Hence, it is important for the two countries to prepare themselves for such a possibility. This paper traces the evolution of India-Pakistan trade, discusses transport and transit policies, examines past trade trends, estimates trade potential, assesses the implications of the recent trade ban, and projects likely scenarios under which trade between the two countries can be resumed. Policy suggestions for governments in the two countries are made so that trade resumption can be done in a smooth manner.

EVOLUTION OF INDIA - PAKISTAN TRADE AND TRANSPORT POLICY

Following partition, majority of Pakistan's exports (about 50 percent) were directed to India and 32 percent of its imports came from India (Nabi 2013). However, Indo-Pakistan trade fell drastically in the years after 1949 and came to a standstill following the war between the two countries in 1965. There was no trade between the two countries for almost nine years till 1974 when the two countries signed a protocol on the resumption of trade. Subsequently, trade was resumed on a list of mutually agreed items which was increased gradually over time. In 1996, India accorded Most Favoured Nation (MFN) status to Pakistan, whereby it allowed all items to be imported from Pakistan. Under the MFN clause, all members of the World Trade Organization (WTO) are obliged to extend trading benefits to a country, equal to those accorded to any other country. Pakistan, on the other hand, continued to allow imports from India in a limited number of items even though the number of items being permitted increased gradually. The granting of MFN was inextricably linked to political events. India stopped trade via the air and land routes between 2001 and 2004 following the attack on Indian parliament in December 2001.

The process of trade normalization was set in motion in 2004 by Commerce Secretary-level talks on commercial and economic cooperation between India and Pakistan within the framework of the composite dialogue in which trade negotiations were to be carried out parallel to a dialogue on several other issues. This marked the beginning of a change in Pakistan's stance with delinking of trade negotiations from political issues. Four rounds of talks during 2004 and 2007 resulted in three major changes - an expansion of the positive list; opening of the road route for the first time in 2005; and an amendment of the maritime protocol. As part of Confidence Building Measures (CBM's), in October 2008, the two governments permitted trade and travel across the Line of Control between the two divided parts of the former state of Jammu and Kashmir (Ministry of External Affairs 2008).

Following the Mumbai attacks in November 2008, the composite dialogue was stalled and then resumed after a hiatus of three years. During this time, however, no pro-active measures were taken to block trade. This was a marked change from the time of the Parliament attack

n 2001. The fifth round of talks held in April 2011 laid down the blueprint for normalizing trade between the two countries. The talks were marked by recognition from both sides that it was essential for the two governments to promote bilateral trade to “build confidence, dispel misunderstandings and allay misapprehensions” (Ministry of Commerce 2011). While the agenda was very detailed the two negotiating points revolved around Pakistan granting MFN status to India and the latter addressing non-tariff barriers faced by Pakistan in accessing India’s market. Subsequent to a number of steps that India took to address non-tariff barriers, trade negotiations on MFN changed stance one more time. In September 2012, negotiations shifted to India offering concessions under SAFTA in exchange for full phasing in of MFN (Taneja et al, 2013).

The phasing in of MFN is an essential part of the trade normalization process and it involved abandoning the positive list. The gradual expansion of the positive list from 875 items in 2000 to 1,947 items in 2009 led to increased trade, but there were several problems associated with administering the positive list. Lack of clarity on the classification of commodities on the positive list, frequent changes in the positive list, and permitting imports of certain items from India for only limited periods were some problems faced by traders. The positive list approach lacked transparency, created uncertainties for traders, and led to high transaction costs. Perhaps a major problem associated with the positive list was that a separate list was maintained for the road route between the two countries at the Wagah border crossing. Even though this list of items permitted for import by Pakistan from India increased from 14 items in 2007 to 137 items in March 2012, the list continued to be different from the general positive list. Thus, for road-based trade, the positive list was much smaller than the one maintained on other transport routes.

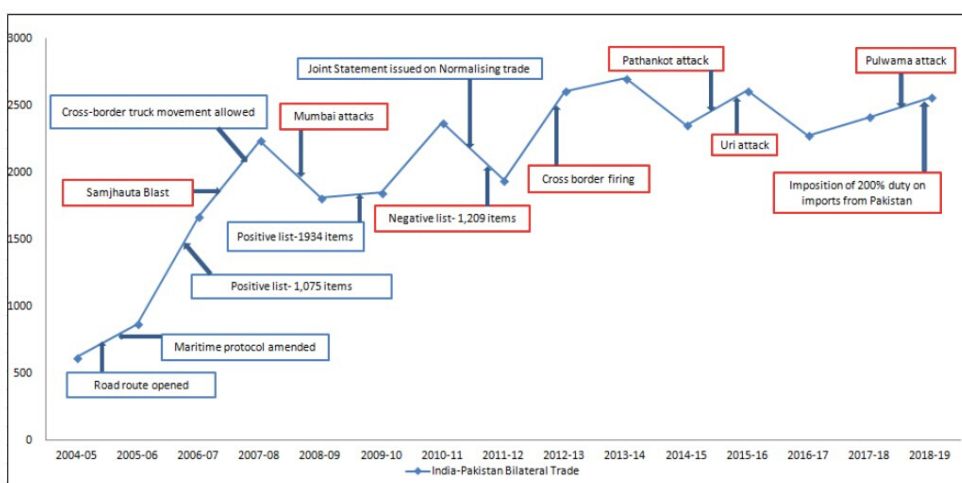
In accordance with the sequencing and timelines for the move towards full normalization of trade laid down by the two countries in the joint statement of November 2011, Pakistan made a transition from the positive list approach to a small negative list of 1,209 items in March 2012. The list contained specific banned rather than permitted items. In the next stage, the negative list was to be phased out by December 2012. The positive list on the road route was also expected to be phased out by December 2012.

During the 7th round of talks held in September 2012, both countries

agreed to deepen the preferential arrangements under SAFTA further. It was agreed that India would notify the reduction in sensitive lists items before December 2012 after Pakistan notifies complete transition to MFN status for India which included phasing out of negative lists and removal of restrictions on items to be traded by the land route. India would thereafter bring down its SAFTA Sensitive List to 100 tariff lines by April 2013 and Pakistan would simultaneously notify its dates of transition to bring down its SAFTA sensitive list to a maximum of 100 tariff lines within next five years. It was also agreed that before the end of the year 2020, except for this small number of tariff lines under respective SAFTA sensitive lists, the peak tariff rate for all other tariff lines would not be more than 5 percent.

However, as the two countries prepared themselves for the 2013 elections, neither was interested in undertaking new measures. After the BJP led Government came to power in India in 2014, several attempts were made to resume the bilateral dialogue but these were cancelled due to tensions between the two countries. The high-level foreign secretary-level talks between India and Pakistan scheduled for August 2014 and the National Security Advisors meet scheduled for August 2015 were cancelled. Political tensions continued to remain high as India launched surgical strikes in 2016 soon after an attack on an Indian army base. However, up to February 2019, political events between India and Pakistan neither had any major impact on trade relations nor led to the imposition of a ban on trade. Rather, during the period 2004-2019 bilateral trade continued to increase, though at a slow pace. The figure below maps the trajectory of political events and the evolution of India-Pakistan trade since 2004-05 till 2018-19 (Figure 1).

Figure 1: Impact of Political Relations between India and Pakistan on Trade



Source: Updated from Taneja et al (2013)

An overall deteriorating political climate led India and Pakistan to adopt drastic trade measures in 2019. In February, India imposed a duty of 200 percent on all items imported from Pakistan and in April, India suspended cross-border LOC trade (Ministry of Finance 2019; Press Information Bureau 2019a). This was followed by a series of measures by Pakistan in August which included suspension of all trade with India and cancellation of train and bus services between India and Pakistan bringing trade to a grinding halt (Government of Pakistan 2019a).

TRADE TRENDS AND POTENTIAL

We begin by examining the trade trends between India and Pakistan prior to the trade ban imposed in 2019. We also estimate trade potential in goods, discuss informal trade and examine trade in the services sector.

TRADE TRENDS

During 2003-04 and 2018-19, bilateral trade between India and Pakistan increased by more than seven times. Total trade between the two countries was US\$ 2.56 billion in 2018-19, of which India's exports to Pakistan were US\$ 2.07 billion and imports US\$ 495 million. Despite exporting only on the positive list, India always had a trade surplus with Pakistan; with the trade balance as a proportion of its total trade with Pakistan decreasing from 66 to 61 percent between 2003-04 and 2018-19 (Table 1).

"India always had a trade surplus with Pakistan; with the trade balance as a proportion of its total trade with Pakistan decreasing from 66 to 61 percent between 2003-04 and 2018-19."

Table 1: India's Trade with Pakistan (US\$ million)

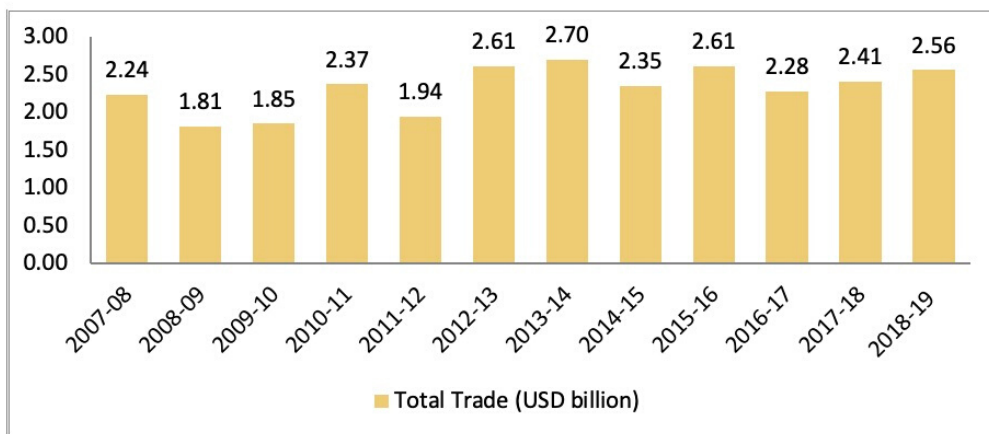
Year	Exports (X)	Imports (M)	Trade Balance (X-M)	Total Trade (X+M)	Trade Balance Ratio (X-M/X+M)*100 (%)
2003-04	287	58	229	345	66
2004-05	521	95	426	616	69
2005-06	689	180	510	869	59
2006-07	1350	324	1026	1674	61
2007-08	1951	288	1663	2239	74
2008-09	1440	370	1070	1810	59
2009-10	1573	276	1297	1849	70
2010-11	2040	333	1707	2372	72
2011-12	1542	398	1144	1939	59
2012-13	2065	542	1523	2607	58
2013-14	2274	427	1847	2701	68
2014-15	1857	497	1360	2354	58
2015-16	2171	441	1730	2612	66
2016-17	1821	454	1367	2275	60
2017-18	1924	489	1,435	2,413	59
2018-19	2067	495	1572	2561	61
2019-20 (Apr-Sep)	666	13	679	653	96

Source: Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India

"The impact of the trade ban is expected to show up in the subsequent year as committed transactions prior to the ban were permitted to be carried out."

In 2018-19 trade was higher than the previous two years. The impact of the trade ban is expected to show up in the subsequent year as committed transactions prior to the ban were permitted to be carried out. While we do not have data for the full FY 2019-20, the data available for period April-September 2019 shows that India's exports to Pakistan were US\$ 666 million and imports were US\$ 13 million in this period.

Figure 2: India's Trade with Pakistan (US\$ billion)



Source: Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India

TRADE POTENTIAL IN GOODS

India and Pakistan have been trading at sub-optimal levels due to the restrictive policies that govern their trade. Hence, there exists huge untapped potential. We have attempted to estimate the maximum additional trade potential that exists between India and Pakistan. Trade potential is defined as the trade that could be achieved at an “optimum trade frontier” in the case of open and frictionless trade possible given current trade, transport and institutional technologies or practices (Drysdale et al. 2000; Kalirajan 2000; Armstrong 2007). There exists a gap between potential and actual trade, which is associated with various socio - political and institutional factors that may be hindering the actual trade to grow to the upper limit of the production frontier. It is of significant importance to know the trade potential that exists between two countries so that they can engage in negotiation processes or undertake reforms to minimize or partially mitigate the effect of existing restrictive measures to trade growth.

Following the methodology followed in Taneja et al (2013), we estimate additional trade potential using the “trade possibilities approach”. Trade possibilities are determined by the exporting country’s supply capabilities and importing countries demand capabilities. We define trade possibilities to exist in items that the two countries can import from each other instead of from elsewhere in the world. In order to identify items having trade potential and assess the magnitude of trade possibilities (referred to as trade potential) between the two countries, products having trade potential are identified as those with – (i) adequate demand in the receiving country, and (ii) adequate supply capabilities in the source country.

Potential trade for any commodity is given by Min (SE, MI) - ET where SE, MI and ET are supplier’s global exports, receiver’s global imports and existing trade between the supplier and the receiver. The exercise is conducted by first posing India as a supplier and then by posing Pakistan as the supplier country for the year 2018. The results of this exercise show the existence of an estimated untapped bilateral trade potential of US\$ 28.67 billion. Of this export potential accounts for US\$ 24.80 billion, and import potential US\$ 3.87 billion. The potential in mineral fuels is another US\$ 6.98 billion, of which export potential accounts for US\$ 6.82 billion and import potential US\$ 0.17 billion (Table 2).

Table 2: India’s Trade Potential with Pakistan (Trade Possibility Approach) 2018

Trade	US \$ Million (Excluding Mineral Fuels) (1)	US \$ Million (Mineral Fuels)* (2)	US \$ Million (Including Mineral Fuels) (3)=(1)+(2)
Export Potential	24797.08	6816.50	31613.58
Import Potential	3872.10	166.34	4038.44
Total Trade Potential	28669.18	6982.84	35652.02

Source: Author’s own calculation using WITS Database

*Mineral Fuel HS Code - 271012 & 271019

When the analysis is extended by computing Revealed Comparative Advantage (RCA) for all the items in which trade possibilities exist, lower estimates of trade potential are obtained. This analysis includes only those items in the trade potential exercise in which the partner country

is globally competitive. The intuition behind this is that items with a revealed comparative advantage to export to the rest of the world are most likely to be traded between India and Pakistan if there are trade possibilities.

Using the RCA approach, the total trade potential excluding mineral fuels falls to US\$14.62 billion with the export potential accounting for US\$11.84 billion and import potential accounting for US\$2.78 billion. The trade potential from mineral fuels remains the same at US\$ 6.98 billion (Table 3).

Table 3: India’s Trade Potential with Pakistan (RCA approach) 2018

Trade (RCA>1)	US \$ Million (Excluding Mineral Fuels) (1)	US \$ Million (Mineral Fuels)* (2)	US \$ Million (Including Mineral Fuels) (3)=(1)+(2)
Export Potential	11841.88	6816.50	18658.38
Import Potential	2775.22	166.34	2941.57
Total Trade Potential	14617.10	6982.84	21599.95

Source: Author’s own calculation using WITS Database

*Mineral Fuel HS Code - 271012 & 271019

These two approaches give a range of untapped bilateral trade potential. For India and Pakistan, this untapped potential lies between US\$ 14.62 billion and US\$ 28.67 billion excluding mineral fuels. Mineral fuels account for an additional export potential of US\$6.82 billion to US\$ 6.98 billion.

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When we compare the ‘trade potential’ obtained using the two approaches above, after excluding mineral fuels, we find that the difference is mainly due to lower estimates in India’s export potential to Pakistan. India’s export potential to Pakistan for products with comparative advantage is much lower at US\$ 11.84 billion which is less than half of the total export potential of US\$ 24.80 billion obtained using the Trade Possibility Approach. This implies that India has a comparative advantage in less than half of the commodities it can potentially export to Pakistan. On the other hand, the import potential does not differ as much as the export potential in the two approaches, indicating that Pakistan has a revealed comparative advantage in most of the products which can potentially be exported to India.

At a disaggregated level (HS-6) the top items with the largest export potential from India to Pakistan are telephones, vehicles, cotton, tea, iron or non-alloy steel, propylene, medicaments and ethylene polymer. The share of the top 10 commodities in total export potential is 20 percent (Table 4)

Table 4: Top 10 Commodities with Export Potential at HS-6 (2018)

HS Code	Commodity Description	Export Potential (US\$ Million)	Share of the Product in Total Export Potential (%)
851712	Telephones for cellular networks	833.0	3 %
870321	Vehicles (Cylinder capacity not exceeding 1000cc)	542.1	2%
520100	Cotton; not carded or combed	538.3	2%
090240	Tea (fermented)	532.2	2%
720839	Iron or non-alloy steel	465.9	2%
390210	Propylene	465.5	2%
300490	Medicaments	411.0	2%
390110	Ethylene polymers with specific gravity less than 0.94	311.1	2%
390120	Ethylene polymers with specific gravity more than 0.94	295.3	1%
870322	Vehicles (Cylinder capacity between 1000cc and 1500cc)	291.9	1%
Total		4686.4	20%

Source: Author’s own calculation using WITS Database

The three categories with the largest import potential include jerseys, pullovers, cardigans; woven fabrics, cereals, shirts, hosiery and footwear, balls, gloves, cotton yarns and clothing accessories. The share of top 10 commodities in total import potential is 36 percent (Table 5).

Table 5: Top 10 Commodities with Import Potential at HS-6 (2018)

HS Code	Commodity Description	Import Potential (US\$ Million)	Share of the Product in Total Import Potential (%)
611090	Jerseys, pullovers, cardigans	268.43	7%
520812	Woven fabrics	193.24	5%
100119	Cereals	182.13	5%
610510	Shirts; men's or boys	152.84	4%
611595	Hosiery and footwear	111.43	3%
950662	Balls	106.39	3%
611610	Gloves	96.71	2%
420321	Clothing accessories	93.25	2%
520532	Cotton yarn; (not sewing thread)	92.94	2%
420329	Clothing accessories	87	2%
Total		1384.33	36%

Source: Author's own calculation using WITS Database

INFORMAL TRADE BETWEEN INDIA AND PAKISTAN

Another indicator of gauging the trade potential between India and Pakistan is the large volume of informal trade flows between them. It is estimated that informal trade between India and Pakistan is close to the magnitude of US\$ 4.71 billion, which is almost twice the value of formal trade that the two countries were undertaking before the trade ban (Taneja and Bimal 2016). Of this, it is estimated that Indian exports are about US\$ 4 billion to Pakistan and imports are worth US\$ 720 million from Pakistan. The main items India exports informally are jewellery,

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textiles, machinery and machine parts, electronic appliances and scrap. India's informal imports from Pakistan mainly consist of textiles, dried fruits, spices, carpets and cement. If such trade is brought within the ambit of official trade, a significant increase in total trade can be witnessed.

The majority of India's informal exports to Pakistan are routed via a third country, most frequently through Dubai. About 68 percent of India's informal exports to Pakistan are routed via Dubai. Majority of India's informal imports from Pakistan take place via the land route (share of 59 percent being accounted for by passengers travelling by bus or rail) and through the LoC in Kashmir (share of 24 per cent).

Several reasons have been identified for the thriving informal trade that takes place between India and Pakistan. Trade policy restrictions such as Pakistan's negative list and high tariffs have encouraged informal trade flows. Transport policies impeding formal trade such as limited number of items permitted by the road route from India to Pakistan, limited number of land routes, and restriction on movement of containerized cargo by the land route have provided an incentive for informal trade. Institutional bottlenecks in the formal channel have diverted potential formal trade to informal channels. For instance, informal traders can escape the non-transparent regulatory requirements and complex customs procedures requirements of trading formally. Informal traders are also discouraged to use the formal channel because of the inadequacy in the payment mechanism and information asymmetries in formal trading markets. The informal trade between India and Pakistan is also influenced by non-economic factors like political tensions between the two countries, fear of trading officially, and possible harassment of official agencies which inhibit businesses from using formal channels.

TRADE IN SERVICES

Until the recent deterioration in political relations between India and Pakistan, the two countries traded in services in addition to goods. This aspect of bilateral trade has not received adequate attention so far. In 2018-19, the services sector accounted for 49 percent of India's GDP and 53.5 percent of Pakistan's GDP (World Bank, 2019). We discuss the trade possibilities that existed prior to the trade measures imposed in 2019. Four sectors discussed include religious tourism, health services, entertainment services and information technology and Business Process

Outsourcing (BPO).

I. Religious Tourism

The potential economic effects of religious tourism development in India and Pakistan are very significant. Religious tourism is an integrated social, cultural, environmental and economic activity in the Indian subcontinent. Towns and cities in Pakistan such as Lahore, Multan, Sheikhpura and Karachi are popular for their pilgrimage sites such as Sikh temples and mosques. Similarly, Indian cities of Allahabad, Ajmer, Shirdi, Varanasi and Haridwar attract a large number of tourists from all over the world (Haq 2018). Development of religious tourism places and products helps to preserve local culture, natural environment, handicrafts and help local communities to have a pride in their cultural assets and heritage.

To some extent, religious tourism has always taken place between India and Pakistan. Every year thousands of Indian Sikhs visit Nankana Sahib, the birthplace of Baba Guru Nanak, in Pakistan. Similarly, thousands of pilgrims from Pakistan visit the Ajmer Sharif and Nizamuddin Dargah in Delhi. However, one of the most significant developments in bilateral relations since the imposition of trade measures in 2019 has been the opening up of the Kartarpur Corridor. The corridor links Dera Baba Nanak in Indian Punjab's Gurdaspur district to Kartarpur in Pakistan's Narowal district, where one of the holiest shrines of the Sikh religion, Gurdwara Darbar Sahib, is located. The corridor grants Indian Sikh pilgrims visa-free entry to visit the gurudwara (Press Information Bureau 2019b).

While normal relations might be a long way off, the Kartarpur corridor has paved the path towards peaceful relations between the two countries. After opening of the Kartarpur corridor, there have been

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reports which suggest that the Pakistan government has approved a proposal to establish a corridor that will allow Hindu pilgrims from India to visit Sharda Peeth, an ancient Hindu temple and cultural site in Pakistan – occupied Kashmir (Business Standard 2019a). Opening up of new holy sites for religious tourism between the two countries can enhance people-to-people connectivity. There is, therefore, vast potential in promoting and facilitating religious tourism between both the countries.

II. Healthcare Sector

Healthcare is a soft sector and offers a win-win situation for both countries. India has emerged as an important destination for the provision of medical services due to the affordable cost of treatment and advancement in the field of medicines. The number of medical tourists to India witnessed an increase of more than two times between 2015 and 2017. In 2017, India attracted 495,056 medical tourists of which 1785 patients were from Pakistan. Several Pakistani patients have visited India for medical treatment like liver transplant, open-heart surgery and kidney transplant (Ahmad 2012). Other speciality treatments have also been offered to Pakistani patients. For instance, the Mumbai Obstetric and Gynaecological Society has provided treatment for infertility to Pakistani couples (Mid- Day 2012).

In February 2012, a group of Indian and Pakistani doctors jointly performed a complicated liver transplant procedure in a Lahore hospital for the first time thereby opening new avenues for co-operation in the area of healthcare services (Times of India 2011). There are some examples of collaborations between hospitals of the two countries. One such collaboration is Peace Clinic between Apollo Hospitals in India and the Dr Ziauddin Hospital in Karachi. The two medical facilities jointly set up a

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combined liver ward for pre- and post-transplant care at Dr Ziauddin Hospital where patients were assessed for their transplant needs and then referred to India for the procedure. Children's Hospital in Lahore has collaborated with Apollo and Medanta hospitals wherein each year the Children's Hospital sent equal number of patients to the two hospitals and the entire expenditure was borne by the Pakistan government.

No recent data on medical tourism is available since the trade measures adopted in 2019. Hence it is difficult to assess whether Pakistani patients are still coming to India for medical treatment. However, there remains untapped potential for increasing medical tourism from Pakistan.

III. Entertainment Services

India and Pakistan share a common language and culture, thus providing scope for trade and co-operation in the film industry. India is the second-largest producer of movies in the world, while Pakistan produces very few movies. Pakistan's President Mohammad Khan Ayub had imposed a ban on screening of Indian films in 1965 following the Indo-Pak War. Problems of the local cinema industry were further exacerbated during the era of Mohammad Zia-ul-Haq's presidency when higher taxation and strict censorship policies made it impossible for cinema to grow. During that time Pakistan lost most of its 700 single-screen theatres. The ban was lifted in 2006, within a few years new multiplexes sprung up in all major cities to meet the high demand for films. The number of screens in Pakistan increased from 30 in 2013 to almost 100 in 2017. However, movie production in Pakistan was low and only 20 movies had been produced in Pakistan by 2013, which meant that multiplexes in Pakistan were dependent mainly on Indian movies for their revenue. In 2016 the Pakistani theatre owners imposed a ban on screening Indian films after tension between the countries escalated, which was later lifted in 2017.

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However, an official ban was imposed on exhibiting Indian films in Pakistan after tensions between the two countries again escalated in February 2019. Theatres in Pakistan are almost empty after the ban on screening Indian films and their owners are now considering laying off employees.

In spite of a number of efforts to introduce movies from other cultures (e.g. dubbed versions of Turkish films), Bollywood has remained the primary choice for movie goers in Pakistan. While some Pakistani movies have turned out to be blockbusters, the country is still far from producing a consistent stream of movies which can help sustain theatres and create an effective ecosystem for cinema to flourish. The loss of Indian movies has impacted the Pakistan film industry so much that they are not able to produce and distribute enough movies to fill theatres every week (Zaidi 2019).

There is an interest in India and Pakistan for each other's music- both audio and visual. The removal of the ban on Indian films in 2006 led to talent sharing and creative cooperation between the two countries. Pakistani actors became stars in India; almost every major Indian movie commissioned Pakistani musicians to sing for them. There is also an interest in Pakistan to watch Indian television serials and in India to watch Pakistani plays. However, Pakistani entertainment channels are not broadcasted on Indian channels whereas several Indian channels are broadcasted in Pakistan. In 2014 a channel called 'Zindagi' was launched by the Zee Network in India which aired Pakistani serials. The channel was immensely popular among the Indian masses. However, Zee entertainment had to stop airing Pakistani shows after tensions between the two countries escalated in 2016. The popularity of the channel shows that there exists a lot of potential for trade in entertainment services.

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The trade potential in the entertainment industry particularly in films, television and music can be tapped by encouraging joint productions. Removing the ban on screening movies would benefit both the countries. Exchanging broadcasting rights to telecast each other's programmes on television is yet another trade opportunity for India and Pakistan.

IV. Information Technology and Business Process Outsourcing (BPO)

India's IT and BPO sector revenues were US\$ 181 billion in 2018-19. Software exports in 2018-19 were US\$137 billion compared to US\$126 billion in 2017-18 (India Brand Equity Foundation 2019). Exports dominate the industry and constitute about 75.7 percent of total industry revenue. Indian IT service offerings have evolved from application development and maintenance to emerge as full-service players providing testing and infrastructure services, consulting, and system integration (Economic Survey- Government of India 2011-12). The BPO sector which initially offered only low-value services is now characterized by greater breadth and depth of services. Although the IT industry in Pakistan is in its infancy, it is growing at a fast pace. IT exports in 2018-19 were US\$ 1.09 billion, up from US\$ 1.06 billion in the previous year (State Bank of Pakistan 2019). This is one of the potential areas which could be exploited as both countries are competing in information and information services. India and Pakistan can establish joint ventures. While Pakistan could provide professionals at lower wages, Indian companies could help in the procurement of international contracts (Husain 2011). Pakistan is emerging as an exporter of specialized software services such as gaming and animation, financial services and healthcare, which Indian companies could import. The two countries could also gain if India sets training institutes in Pakistan, or if professionals from Pakistan come to India to get professional training. The BPO segment in Pakistan is also growing. Government incentives to the international outsourcing

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IMPLICATIONS OF TRADE - BAN

The trade measures amounting to a trade ban since 2019 has several implications for the economies of both countries. There are significant costs of non-cooperation adding to the debt servicing costs of both countries. The imposition of the ban has negative implications on both the Indian as well as the Pakistan industries. There are implications for consumers in terms of welfare loss as well as on employment. The trade ban also impacts the Cross-LoC trade that was initiated as part of a confidence-building measure between India and Pakistan in 2008. The trade ban is also expected to add to the thriving informal trade between the two countries.

COSTS OF NON-COOPERATION

A recent unpublished report by the Ministry of Commerce and Industry (2018) estimates the cost of non-cooperation for India and Pakistan. For Pakistan, the costs of non-cooperation are estimated to be US\$ 2.67 billion per annum (about 6.7 percent of its total imports) which it can save if it sources only 25 percent of its current import basket from India. Savings from such imports can reduce Pakistan's cost of debt servicing by almost 50 percent. For India, the cost of non-cooperation is estimated to be a significant US\$ 24.55 billion, which could save India 26.5 percent of its debt servicing cost.

IMPACT ON THE DOMESTIC INDUSTRY

The trade ban will have negative repercussions on both the Indian as well

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as the Pakistan industry. Around 82 percent of India's exports to Pakistan consisted of raw materials and intermediates. Cotton and organic chemicals were two of the largest items India exported to Pakistan, and both of these are raw materials used by Pakistan's industries. The trade ban is likely to affect textiles and pharmaceuticals industries in Pakistan. While the textile industry is export-oriented, the pharmaceutical industry largely caters to the domestic markets in Pakistan. Imports from Pakistan are much lower, but are nonetheless important for Indian industries. One of the largest items imported from Pakistan is Naphtha which is used by the fertilizer industry in India for the production of urea. Cotton is another raw material imported from Pakistan for India's textile industry. Similarly, cement imported from Pakistan is used by the construction industry. Thus, domestic industries in both countries are likely to get impacted by the trade ban.

IMPACT ON CONSUMERS

There are also repercussions for the consumers in both India and Pakistan. Consumers sometimes have to pay extra prices for products which could be imported from the neighboring country at a much cheaper cost. This leads to welfare losses to consumers. For example, onion prices are soaring in India and while onions are available in Pakistan at a comparatively cheaper rate. Tomato prices are high in Pakistan but are available at a comparatively cheaper rate in India (Table 6).

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Table 6: Comparison of Onion and Tomato Prices in India and Pakistan

	Month	Average Wholesale Price in India (INR)	Average Wholesale Price in Pakistan (INR)
Onion			
	October 2019	34.38	26.14
	November 2019	45.11	29.76
Tomato			
	October 2019	26.59	31.12
	November 2019	23.5	70.97

Source: Author's compilation from tridge.com

Similarly, for some medicines, the prices are higher in Pakistan as compared to India. According to one survey, a strip of 10 Zantac tablets costs PKR 90 in Pakistan as compared to PKR 14 in India. The medicine Ciprofloxacin is available for PKR 520 in Pakistan whereas the Indian version costs only PKR 21 (Qureshi 2019). Consumers in both countries are bearing the brunt of the trade ban as they have to pay higher prices for several essential items – food and medicines which would be available at lower prices in the absence of a trade ban.

IMPACT ON EMPLOYMENT

The trade ban can have negative repercussions on employment in India and Pakistan. The positive linkage between exports and employment is self-evident. If a home country produces more goods and services for export, then that increased production should translate into more jobs. While the imposition of restrictive trade measures can certainly save jobs in specific industries which were disadvantaged to international competition, it does cost jobs in which the home country had a comparative advantage. Using the Input-Output analysis conducted in a recent study by Veeramani (2016), we estimate that around 2.85 lakh jobs in India are supported by exports to Pakistan (estimates for 2012-13). These number of jobs might be at stake owing to the trade ban and this is not a small number, especially in a scenario where employment rates in India are already on the decline (Veeramani 2016).

Another point here is that even if the trade ban does not reduce the absolute number of jobs, it could affect wages. Engaging in foreign trade not only raises the amount that an economy can produce by allowing firms and workers to play to their comparative advantage, but it also causes the average level of wages in an economy to rise. Therefore, any form of barrier to trade can reduce the average level of wages in an economy.

IMPACT ON LOC TRADE

Border trade across the Line of Control (LoC) commenced in 2008 as part of a confidence-building measure between India and Pakistan. The intention was to enhance economic interactions which could lead to improved relations between the two countries. The purpose of the trade was to allow people on both sides to trade in items produced in the region to meet their daily needs, which in turn would help them build partnerships and relationships across the LOC. Duty-free trade was allowed through the Uri-Muzaffarabad trade route and the Poonch-Rawalakot trade route on an agreed-upon list of 21 items of Kashmiri origin. Consequent upon an increase in the volume of trade, the number of trading days was increased and Trade Facilitation Centres were established for safe and smooth Cross LoC trade. The suspension of cross LOC trade in 2019 has led to a sudden disruption in the trading activity which has impacted traders, truckers and labourers engaged in trade. The suspension of this trade is expected to affect the livelihood of more than 50,000 people in Kashmir (Hassan 2019). The termination of cross LOC trade has also interrupted the people to people interaction which is essential for confidence building.

IMPACT ON INFORMAL TRADE

Informal trade between India and Pakistan is likely to see a surge after the imposition of trade measures and suspension of cross LoC trade. As has been discussed in the earlier section, a substantial volume of trade between India and Pakistan has been taking place through informal channels largely due to the restrictive trade practices followed by the two countries. Strong ethnic ties have facilitated informal trade for several decades. Organisers of informal trade largely based in Dubai have ensured that goods are delivered and payments are made as they have devised parallel institutional mechanisms for contract enforcement and dispute settlement. Informal traders have developed efficient ways of

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obtaining information on quantities and commodities to be traded and mitigating risks that might arise from the transacting environment (Taneja 2013).

Since the informal trade channel has been active for several decades and is a well-functioning mechanism, it offers a ready alternative to traders who wish to trade. In a highly restrictive environment, informal trade will most likely increase.

POSSIBLE SCENARIOS FOR TRADE RESUMPTION

There are two possible scenarios. First, India and Pakistan could initiate a gradual process of trade liberalization by commencing trade in a limited number of items which could be increased over time. Second, the two countries could resume trade at levels of normalization achieved in 2012 and address the remaining challenges to trade normalization. We discuss both of these possible scenarios:

TRADE ON A POSITIVE LIST - SCENARIO 1

Historical evidence suggests that even though trade restrictions have been applied several times, such measures have been reversed to create a trade enhancing environment. Following the 1971 Indo-Pak war, the Simla Agreement was signed between both countries in 1972. As part of this agreement, a protocol on the resumption of trading relations was signed in 1974 on a list of mutually agreed items. The majority of items on the list were essential agricultural commodities, imports of which could stabilize domestic prices and take care of seasonal shortages and food security in the home country. Both countries worked on positive lists for some years, which expanded incrementally over the years. In 1996, India unilaterally discontinued its positive list for trade in goods with Pakistan and

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accorded the MFN status. Pakistan, however, continued to trade on the positive list until March 2012 when it shifted to a negative list of 1209 items.

We can draw lessons from the past and resume the trading relationship by trading on a mutually agreed list of limited items of necessity. This seems highly probable as there is demand in both countries for certain essential items. For example, in September 2019, the state-owned Metals and Minerals Trading Corporation Ltd floated a tender for import of onions from “Pakistan, Egypt, China, Afghanistan or any other origin” to curb the rising onion prices. Even though within a few days MMTTC Ltd issued an addendum to its original tender specifying that onions should not be imported from Pakistan, its earlier notification did indicate that Pakistan could be an important supplier of onions to India (Business Standard 2019b; Indian Express 2019; OP India 2019).

Within a month of Pakistan suspending bilateral trade with India, the Ministry of Commerce and Textile Industry, Government of Pakistan issued a Statutory Regulatory Order (SRO) that exempted therapeutic products regulated under the Drug Regulatory Authority of Pakistan from the trade ban (Government of Pakistan 2019b). The ban on pharmaceutical products was lifted after concerns were raised by a number of Pakistani Pharmaceutical companies who feared that banning the import of Indian medicines could lead to a severe crisis of life-saving drugs in Pakistan. As per some reports, Pakistan’s pharmaceutical industry is faced with numerous challenges including the over-the-counter sale of counterfeit products and a massive decline in the number of manufacturing companies of pharmaceutical products. Given these challenges and an acute shortage of essential medicines, Pakistan imports a considerable proportion of its pharmaceutical requirements

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from India. According to some reports, the export of medicines to India has also been allowed by the Pakistan government. The permission for such trade has to be obtained from the Ministry of Commerce in Pakistan.

In the coming months, we can expect more such instances for the demand for products from either country. This would make a strong case for the resumption of trade in a positive list for essential items particularly those related to the agriculture and pharmaceutical sectors. The list can then be increased gradually.

RESUME TRADE AND ADDRESS CHALLENGES TO TRADE NORMALIZATION - SCENARIO 2

If both countries decide to resume trade from the levels preceding the trade measures in 2019, it is important to address the remaining challenges to trade normalization. First, Pakistan should complete the MFN process by phasing out the negative list Pakistan maintained against India. Second, India should address the various Non-Tariff Barriers faced by Pakistani business people while accessing the Indian market. Third, the two countries should remove impediments to transport and transit. Fourth, restrictions on foreign direct investment flows between the two countries should be removed. Fifth, for deeper and stronger trade and investment linkages, the visa regimes would have to be liberalised.

We discuss the key challenges related to non-tariff barriers, transport and transit, foreign direct investment and visas that need to be addressed for trade normalization:

I. Non-Tariff Barriers

Some of the non-tariff barriers faced by Pakistani businesses include overvaluation of goods, tedious packaging and labelling requirements, access to a limited number of ports for some products, lack of testing

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facilities at ports, inadequate infrastructure, mishandling of goods, and theft of cargo at ports (Trade Development Authority of Pakistan 2012). To address some of these barriers, Government of India and Government of Pakistan signed three agreements in September 2012. These included a customs cooperation agreement to help avoid arbitrary stoppage of goods at each other's ports, a bilateral cooperation agreement on mutual recognition between Pakistan Standard and Quality Control Authority (PSQCA) and Bureau of Indian Standards (BIS) and an agreement on redressal of trade grievances between India and Pakistan. However, these agreements did not become operational.

It was also recognized by the two Governments that there were “perceived” barriers due to lack of awareness among Pakistani business people about the regulatory regimes in India. To address these “perceived” barriers, the Indian government arranged interactive sessions between Indian regulators and Pakistani business people in Delhi in September 2011 and in Pakistan in January 2012. However, this process, even though innovative, was short-lived and therefore did not yield the desired results. Non-tariff barriers of a different nature have also been identified. For example, it was found that Pakistani consignments were subjected to excessive checks – usually due to security concerns, causing harassment of genuine traders. Another study pointed out that Pakistani businesses find it difficult to sell their goods because of an “image issue”. Pakistani bed linen, for instance, was being sold in India under European and Indian labels even though these goods were not manufactured in these places (Taneja et al 2013; Trade Development Authority of Pakistan 2012). Several of these barriers remained unaddressed and would have to be re-examined if trade between the two countries is resumed.

II. Transport

Transport impediments have for long constrained India Pakistan trade. The road route closed for several years was opened only in 2005; rail and air links have been cut off several times; and the sea trade operated under a very restrictive agreement until 2005. These impediments have led to high transaction costs of trading. The most significant changes have been carried out in the sea transport protocol whereby an amendment to the protocol in 2005 permitted India and Pakistan to carry cargo between the two countries by foreign vessels. The amendment also permitted both countries to send their cargo to a third country using

each other's ports. As a result sea trade between the two countries started to take place under global maritime arrangements and practices. However, there are several impediments on the road and rail route which remain unaddressed. We discuss these below.

i. Road Transport

The opening of the Attari-Wagah road route between India and Pakistan in 2005 after 58 years was a historic move. It was followed by yet another trade-facilitating measure in 2007-trucks from the two countries were permitted to unload goods on each other's territory. Amritsar and Lahore are the two major cities on either side of the border separated by a distance of only 54 kilometres. Hence, the transport costs for goods moved via land route between northern India and northern Pakistan could be substantially lower than the sea route. Recognizing the importance of the land route, India opened an Integrated Check Post (ICP) at Attari in April 2012 with new features including a gate exclusively for trade, warehousing facilities, improved road infrastructure, and facilities to house all trade activities under one unit. However, traders reported several impediments they faced while transporting goods by road through the Attari-Wagah border. The warehousing capacity at the ICP was not equipped to handle the trade volumes. Each truck was checked manually and at several points by various agencies which added to the time and cost. There were no lab testing facilities or bank branches at the ICP. Thus, even though the purpose of the ICP was to have all facilities in the same complex- several of them were lacking. (Taneja et al 2016).

In addition to the lack of infrastructure, road transport could not be developed to its full potential as the protocol did not allow Indian and Pakistani trucks to move in each other's countries and did not permit

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containerised cargo. There was also a restriction on the number of commodities that could be imported from India into Pakistan. Until the trade ban in 2019, only 137 items were allowed. The Attari-Wagah road route was the only road route open for trade even though India has notified 16 land routes for trading between India and Pakistan. Resumption of trade will be successful only if the constraints to the movement of goods by the road route can be addressed.

ii. Rail Transport

Until August 2019, goods used to move between India and Pakistan by the goods train or in parcel wagons attached to the Passenger train. Since the capacity of the passenger train was limited, most of the rail cargo used to be carried by the goods train. However, there were several impediments faced by traders in transporting goods by rail through Attari-Wagah border. There were inadequate numbers of wagons allocated to Indian exporters with no transparency in the process of wagon allocation. There was also a restriction on the type of wagon which did not permit liquid cargo, or uncovered cargo. There was also no provision for temperature-controlled wagons and refrigerated wagons. Goods requiring containerisation could not be traded by the rail route. Thus even though there were no restrictions on commodities that could be traded through the rail route, the restriction on the type of wagons permitted restricted the type of commodities that could be traded. The infrastructure facilities at the rail port were also reported to be inadequate. There was no space allocated for stacking of goods prior to export, leading to deterioration of goods and unnecessary demurrage charges. There were no lab testing facilities at Amritsar railway port and items had to be sent outside Amritsar or to Amritsar airport for testing purposes. There were no bank branches at Amritsar rail port. There were no facilities for mechanized loading and unloading of goods. Even though there was a protocol for movement of containerized cargo it was not operational. There was no custodian of cargo at the railway station. The goods were left in the open and are extremely vulnerable to theft (Taneja et al 2016).

Even if trade is resumed at pre-2019 levels, all these impediments will have to be addressed so that cargo can be moved between the two countries at lower transaction costs.

iii. Transit

India and Pakistan have so far not addressed the issue of transit to other countries. India has not allowed Pakistan to access Nepal, Bangladesh or Bhutan through its territory. Similarly, Pakistan has not given any transit rights to India to access the Afghan market for its exports. In July 2010, Afghanistan and Pakistan signed an amended agreement, the Afghanistan-Pakistan Transit Trade Agreement (APTTA), which provides for an increased number of transport routes available to trucks from Afghanistan and Pakistan. However, the APTTA does not allow Indian exports to Afghanistan through Pakistan via the land route.

In order to increase their gains from the trade normalization process, India and Pakistan must put this transit issue on their agenda whenever bilateral trade dialogue resumes.

iv. Foreign Direct Investment

Investment flows can play an important role in deepening trade linkages between the two countries. For many years India did not permit Foreign Direct Investment (FDI) inflows from Pakistan. In a move to normalize economic ties between the two countries, India's Department of Industrial Policy and Promotion (DIPP) announced changes in August 2012 in the Consolidated FDI Policy to allow investment from Pakistani firms and individuals in all sectors except defence, space, and atomic energy through the government route. Following this, India removed Pakistan from the negative list under the Foreign Exchange Management Act (FEMA), paving the way for investment from Pakistan. Also, the FEMA regulations have been amended to allow Indians to invest in Pakistan. However, till date there has been no Indian investment in Pakistan nor has there been any investment from Pakistan in India.

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In order to encourage bilateral investments, a natural next step would be to move toward a bilateral investment treaty that would boost both the safety of investments and investor confidence. An interesting suggestion by business people is to establish joint ventures between the two countries without locating in each other's country. Ventures set up initially in this manner could pave the way for future investor confidence.

v. Visas

The last major challenge is related to visa restrictions. Some of the restrictions that used to limit market access for aspiring traders were the grant of city-specific visas, the requirement that traders report to police upon arrival and before departure, the need to exit from the port of entry, and delays in obtaining visas.

A new visa agreement was signed between the two countries in September 2012. The agreement introduced measures to ease travel by tourists, pilgrims, the elderly, and children to facilitate contacts between people of the two countries. The business visa regime was more liberal as it allows one-year, multiple - entry visas for up to 10 places with an exemption from police reporting for business people who have a turnover of at least 30 million Pakistani rupees or the equivalent. For those whose turnover is 3 million rupees or the equivalent, a one-year visa for five places and up to four entries was permitted.

The new visa regime was a channel for information exchange on trade related matters between the two countries. As a next step, the countries should consider the use of information technology-driven systems that would help assure adequate and effective security while allowing genuine traders to trade across borders.

POLICY RECOMMENDATIONS

There is an utmost need to delink trade negotiations from political relations as has been seen historically during the period 2004-2019. Governments on both sides need to recognize that there are significant costs of non-cooperation. A trade ban impacts the domestic industry in both countries and disrupts regional and global value chains in different industries in the two countries. A restrictive trade environment shifts trade to informal channels as this channel is institutionally strong and ensures that goods are delivered, and payment are made to the trading parties. Governments on both sides need to take cognizance of all

possible options available to them when talks resume and be prepared with alternative plans of action which could be discussed mutually. Business persons should come together to create a strong lobby in India and Pakistan that could become influential in shaping India-Pakistan's trade and transport policy and build momentum in opening channels for resumption of trade.

We discuss recommendations under two alternative scenarios – resuming trade in a limited number of items or a positive list; and resumption of trade at levels of normalization achieved before February 2019 and address pending constraints.

RESUME TRADE IN A POSITIVE LIST

I. Adopt Lessons from historical experience: One possible option is to draw lessons from the past and resume the trading relationship by trading on a mutually agreed list of limited items of necessity in the agricultural and pharmaceutical sector.

II. Engage in stakeholder consultations: The positive list could be gradually expanded in a specified time frame. The two Governments could engage with different business organizations and representatives to identify key products which are in high demand in both countries.

RESUME TRADE AT PRE-2019 LEVELS OF TRADE NORMALIZATION

III. Trade under WTO and SAFTA Rules: Being members of WTO and SAFTA, India and Pakistan should trade with each other in accordance with MFN trading rules and abide by the duty rates applicable to each other under SAFTA.

IV. Phase out Pakistan's Negative List: In accordance with the sequencing and timelines for the move toward full normalization of trade laid down by the two countries in the joint statement of November 2011, Pakistan should phase out the negative list of 1209 items it maintained until August 2019. Pakistan should also allow trade in all items to take place by the Attari-Wagah road route. These changes would usher in the full phasing in of MFN that will form an essential part of the trade normalization process.

V. Address Non-Tariff Barriers: India should address the non-tariff barriers faced by Pakistani businesses in entering the Indian market. Some of the measures that can be taken include improving infrastructure for testing facilities, simplifying procedures, and entering into equivalence agreements and mutual recognition agreements. There are also perceived non-tariff barriers which exist due to a lack of information about each other's regulatory regimes. Therefore, it is important to create multilevel channels of communication that can reduce misconceptions, bridge the information gap, and generate a significant change in the business environment of the two countries.

VI. Undertake measures to improve cross-border movement of goods and facilitate trade:

i. For the rail route infrastructure facilities at the Land Customs Station such as warehousing, cargo holding area, container handling facilities, lab facilities for testing, provision for mechanized loading and unloading, and utilities for human resource working at port need to be upgraded. Soft infrastructure such as Electronic Data Interchange facility for exports and imports should be made operational. Modern customs facilitation methods which include transparent and simple procedures, and risk management systems, need to be introduced. A dry port should be constructed for containerized cargo near attari and cross-border movement of containerized cargo should be permitted. More rail routes should be opened up for movement of cargo.

ii. For the road route, hard infrastructure which includes warehousing, cargo holding area, container handling facilities, lab facilities for testing, and full body truck scanners need to be upgraded. Customs reforms particularly those related to simplification of procedures, and

"India should address the non-tariff barriers faced by Pakistani businesses in entering the Indian market. Some of the measures that can be taken include improving infrastructure for testing facilities, simplifying procedures, and entering into equivalence agreements and mutual recognition agreements."

transparency need to be introduced and risk management systems need to be put in place. Private bonded warehouses should be permitted to operate at the ICP and cross-border movement of containerized cargo should be allowed. So far only one rail route is operational through Attari. More road routes should be made operational.

iii. A separate fund should be allocated to upgrade infrastructure for rail LCS and the ICP. A public private partnership (PPP) model can be considered for building the infrastructure at the land ports. If the trade dialogue is resumed and Pakistan allows all items to be transported by the road route, the ICP facilities would not be adequate.

VII. Formalize Cross - LOC Trade: Governments should formalize Cross-LoC trade by shifting from previous arrangement of barter trade (in a limited number of items) to regular trade (in all items) through a formal and institutionalized channel which would follow trade rules that are applied to all other trading routes. The process of formalization of cross-LoC trade would unleash huge trade opportunities for the two countries and especially for the two parts of Kashmir. At the outset, formalization of this trade would necessitate formalization of banking channels across both regions for facilitation of payment. This should be supplemented by legal arrangements that provide for enforcement of contracts. A proper grievance redress system also needs to be put in place. Some other measures that need to be undertaken include modernizing infrastructure at the border, removal of restrictions on the types of trucks, permitting Indian and Pakistani trucks to move freely in the other's territory, improved communication links and easing business travel.

VIII. Facilitate Bilateral FDI: Some measures that could encourage bilateral investments are faster clearances and approval procedures in

"Governments should formalize Cross-LoC trade by shifting from previous arrangement of barter trade (in a limited number of items) to regular trade (in all items) through a formal and institutionalized channel which would follow trade rules that are applied to all other trading routes."

general, fast track procedures, regular and updated information on opportunities, the regulatory framework for investment, bidding processes, and award of contracts, targeting Indian investors of Pakistani origin, greater investment by the Indian government to build investor confidence, and setting up common SEZs at the borders. It would also be useful to consider a bilateral investment treaty that addresses issues of investment facilitation, investor protection, dispute settlement, and contract enforcement so as to ensure greater ease, transparency, and commitment in bilateral investments.

IX. Facilitate Trade in Services: For the four service sectors examined in this paper namely religious tourism, health services, and entertainment services and Information Technology and Business Process Outsourcing (BPO), governments on both sides could set up joint working groups to address regulatory barriers.

X. Liberalize Visa Regime: A more liberal visa needs to be put in place. Visas should be extended for business, tourism, and visa regime in place. City specific visas need to be liberalized and police reporting required on entry should be eliminated. Electronic “smart systems” should be used to screen visa applications and track the physical movement of people, which would help in avoiding unnecessary harassment of genuine traders.

XI. Open Telecommunication Channels: Telecommunication channels need to be opened to foster people-to-people contact and reduce business costs. The existing communication system between India and Pakistan does not permit travelers to use their mobile phones in the other country. Buying local SIM cards is not easy, as it involves a lot of documentation; as a result, visitors and businessmen have developed informal mechanisms to procure local SIM cards through friends and relatives. Communication is a basic necessity for trade and people to people contact and should be restored.

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IMPACT OF POLITICS ON TRADE COOPERATION BETWEEN INDIA AND PAKISTAN

AFAQ HUSSAIN

International commerce has successfully had an impact on the foreign policies of several nations bilaterally as well as multilaterally. Linkages between commerce and conflict have gained widespread recognition in global security and political economy. Both, conventional wisdom and empirical evidence propose that increasing levels of cross - border economic flows, defined either in terms of trade or capital movements; decreases the probability of conflict.

Reducing conflict helps create a globally conducive atmosphere for facilitating trade and other ties between countries; at the same time, increasing trade promotes peace through communication and transnational ties, which raises the potential for cooperation. The growing internationalization of commerce and firms makes war less likely by increasing the costs of severing economic links.

Trade through peace has worked exemplarily well for several countries, especially after World War II; yet, trade too can be instrumental in achieving and maintaining peace and stability. Economic cooperation offers a clear way towards greater stability and peace between both India and Pakistan—and across South Asia as a whole. The cost of economic conflict, against the cost of decreased conflict and increased economic ties, makes the latter choice obvious.

"The irony of India - Pakistan relationship is that while just trade and politics are inextricably linked, trade has also been treated as a bargaining chip to drive peace between the two countries and has frequently also being held hostage to turbulent political climate."

The bilateral economic relationship between India and Pakistan makes for an interesting case study to examine the hypothesis of trade for peace and also understand the impact of politics on bilateral trade. The irony of India - Pakistan relationship is that while just trade and politics are inextricably linked, trade has also been treated as a bargaining chip to drive peace between the two countries and has frequently also being held hostage to turbulent political climate.

As a result of the bilateral engagement processes and the politics between the two countries, a three-tier system of trade has emerged between India and Pakistan:

I. Normal trade which used to take place via air, sea, road and rail routes - this trade followed all the policy regulations related to international trade and has been often hampered owing to political tensions. This trade eventually succumbed to the political tensions between the two countries and was suspended by Pakistan in August 2019.

II. Barter trade which took place across the Line of Control, from two points in Jammu and Kashmir, in 21 commodities- this trade was started in October 2008 as a Confidence Building Measure (CBM) between the two governments to instill peace between the two sides of Jammu and Kashmir. The trade was suspended by India in April 2019 citing security reasons.

I. Informal trade that has been taking place in large volumes, mostly via third countries such as Dubai-this trade was a sort of "evasion" mechanism for traders from the volatile political situation. It is the lack of confidence on direct trading mechanism by the business community in the two countries that this trade thrived on.

"Informal trade that has been taking place in large volumes, mostly via third countries such as Dubai- this trade was a sort of "evasion" mechanism for traders from the volatile political situation."

Bilateral economic relationship between India and Pakistan witnessed their worst times in the year 2019. In February 2019, in the wake of the Pulwama attack, India decided to withdraw the Most Favoured Nation (MFN) status to Pakistan; subsequently, it imposed 200% customs duty on all Pakistani goods coming into India. After the Balakot airstrikes, again in February, India and Pakistan closed their airspace with Pakistan keeping the ban in place for nearly five months. In April, India suspended trade across the Line of Control in Jammu and Kashmir citing misuse of the trade route by Pakistan – based elements. And more recently, post the Jammu and Kashmir Reorganisation Bill, Pakistan cut off diplomatic and economic ties with India – expelling the Indian envoy, partially shutting airspace and suspending bilateral trade. The current situation is reminiscent of the falling out between the two neighbouring countries post-1965 when all trading relations were suspended, prior to which Pakistan and India were the biggest trading partners in the region.

Over the years, both India and Pakistan have been unable to isolate trade from politics. Any political issue between the two countries has resulted in some negative decision aimed at destabilising the already minute bilateral trade ties between the two countries. The issue of trade needs to be separated from the larger political strategic debate which has a singular focus on Kashmir and terrorism. It is in this broader context that the objective of this commentary is to understand the impact of politics on trade by narrating the background of trading relations and understanding the impact of suspension of trade. I then place the trade that takes place across the Line of Control in the broader context of India-Pakistan relationship and examine the possible impact of the suspension of trade on the economies of the local population. I end the commentary by suggesting how re-initiation of cross-LoC trade can also play its role towards normalising the bilateral relations and at the same time be

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made part of the larger economic engagement process of India and Pakistan.

BACKGROUND OF INDIA-PAKISTAN TRADE

While it is reasonable to assume that the strained political relations between India and Pakistan would have completely put the trade ties between the two countries at risk, empirical evidence suggests that in spite of the political tensions trade has always taken place between them except for nine years between 1965-74 (following the Indo-Pak war in 1965). Even after trade ties were severely disrupted during that period, there was a protocol which was signed for the restoration of commercial relations in 1974. In fact, desirability of resumption of trade relations between the two countries was generally expressed in the Indian media at that time. As noted in the Indian Express in 1974:

“Once trade, even on a modest scale, is resumed, it will provide in future the basis for significant and wide range economic co-operation which will be of great help in a step by step improvement in the political relations between the two countries.” (Indian Express 1974).

Since then, trade continues to grow. In fact, since India granted the Most Favored Nation (MFN) status to Pakistan in 1996, trade between the two countries has been at much higher levels than before[i]. In January 2004, the governments of India and Pakistan commenced the Composite Dialogue process, in which improving trade relations was a key area of focus. Post-2004, the policy establishments of both the countries have taken major strides towards improving trading relations which has resulted in path-breaking developments such as the generation of an expanded positive list of items allowed to be imported into Pakistan

"During the time period 2004 and 2012, a number of economic initiatives had been introduced and bilateral trade displayed consistent levels, reaching the levels of around USD 2.5 billion annually in the recent years. However, to realize the envisaged trade potential between India and Pakistan – estimated to be between USD 10 to 20 billion as per several studies – a lot remains to be done."

from India, the commencement of trade via road route in 2005 and necessary amendments in the maritime protocol providing fillip to sea trade between the two countries. In November 2011, the government of Pakistan announced its decision to grant Most Favored Nation (MFN) status to India but this decision was not realized due to the lack of political will from Pakistan. In March 2012, Pakistan moved away from the positive list approach to a negative list of 1209 items.

During the time period 2004 and 2012, a number of economic initiatives had been introduced and bilateral trade displayed consistent levels, reaching the levels of around USD 2.5 billion annually in the recent years. However, to realize the envisaged trade potential between India and Pakistan - estimated to be between USD 10 to 20 billion as per several studies - a lot remains to be done.

Table 5: Pakistan's import of pharmaceuticals from China

Year	Import from China (US\$Mn)		Share of China in Pak's total import of pharma	
	Formulations	Bulk Drugs	Formulations	Bulk Drugs
2009	24.2	72.6	7.7	19.4
2010	20.3	78.9	7.0	21.9
2011	23.0	86.7	7.3	22.0
2012	21.8	76.8	7.0	17.1
2013	19.8	69.4	5.9	14.1
2014	26.7	91.0	6.9	16.7
2015	27.8	101.7	7.6	20.4
2016	27.5	125.7	6.5	24.7
2017	37.3	151.4	7.7	28.0
2018	35.0	156.7	6.5	26.5

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

SUSPENSION OF INDIA-PAKISTAN TRADE

In 2019, escalating tensions between India and Pakistan led to the announcement of retaliatory measures, one after the other. Like in the past, the impact has trickled down to trade relations between both the countries; this time it is much more severe.

In 2018-19, bilateral trade between India and Pakistan was valued at USD 2.5 billion – India's exports to Pakistan accounted for USD 2.06 billion and India's imports from Pakistan were at USD 495 million. India's decision vis-à-vis withdrawal of MFN status and imposition of 200% duty has hurt exports to India, falling from an average of USD 45 million per month in 2018 to USD 2.5 million per month in the months of February 2019 till July 2019, post which the trade was suspended.

The quantum of loss that has been incurred by traders in both India and Pakistan has varied according to the nature of trade and the trade route. For example, through the Wagah-Attari land route, bilateral trade was heavily in favour of Pakistan; in the last two years, India's imports from Pakistan accounted for 82% of the total trade through the land route. After February 2019, most of this business has been badly affected with only a handful of items including rock salt, continuing to be imported (Hussain and Singla, 2019a).

Unlike national economies, border economies owe their existence to cross-border economic opportunities. These economies generally experience a sudden boom-bust cycle on account of political changes, trade bans, price and exchange rate and tax fluctuations. As seen elsewhere in South Asia such as via the inception of India-Bangladesh border haats, the costs and benefits are mutual to the border economies on both sides; much more in cases such as Amritsar where major economic activity is largely dependent on border trade with Pakistan.

Amritsar is land-locked, is not a metropolis and traditionally has no significant industry. Hence, any decision on India-Pakistan trade has a direct impact on the local economy and the people of Amritsar. Since February, according to estimates on ground, 5,000 families have been

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directly affected in Amritsar because of breadwinner dependence on bilateral trade. Traders and their staff members, customs house agents (CHAs), freight forwarders, labour force, truck operators, dhaba owners, fuel stations, and other service providers are closing shop and going out of business. Of the nearly ₹ 25-30 crore that was being added to the local economy of Amritsar every month, the estimate now is that three-quarters has been lost in the months post February 2019 (Hussain and Singla, 2019a).

Many a time, upsetting the trade apple cart can have more repercussions than intended. For example, gypsum, imported from Pakistan, was being used in India as well as in Nepal for the cement plants there. To avoid empty backhauling on the return journey, trucks carrying these consignments brought back specific products such as yarn from mills in Uttar Pradesh to Punjab. In the absence of gypsum trade, the freight rate of trucks from Uttar Pradesh to Punjab, as per the ground reports, has increased from ₹3 to ₹7 per kg, with a single trip absorbing the cost of the entire journey. Earlier, prices of tradeable goods which were kept under check owing to the balancing out mechanisms of international trade, are experiencing fluctuations now because of the trade disruptions.

With Pakistan deciding to completely suspend bilateral trade, exports of cotton from India to Pakistan are expected to be affected the most, eventually hurting Pakistan's textiles; the lawn industry which will now have to source pricier cotton from alternative markets in the United States, Australia, Egypt or Central Asia; or there is a high possibility that Indian cotton, along with other products, will be routed through third countries such as the United Arab Emirates and Singapore, thereby increasing the share of indirect trade which is estimated to be more than double the direct trade between India and Pakistan.

"Hence, while the overall economies of the two countries may very well manage to stay afloat despite the suspension of economic ties, it is the local economies that will suffer the most and are already perishing. In this connection, there has been a loss in business, rise in prices, lack of alternative sources of livelihood, as well as an expected increase in bank defaults."

Hence, while the overall economies of the two countries may very well manage to stay afloat despite the suspension of economic ties, it is the local economies that will suffer the most and are already perishing. In this connection, there has been a loss in business, rise in prices, lack of alternative sources of livelihood, as well as an expected increase in bank defaults (Hussain and Singla, 2019a).

CROSS LOC TRADE: INDIA-PAKISTAN'S MOST CELEBRATED CBM

On 21st October 2008, barter trade commenced across the Line of Control – which divides India-administered and Pakistan-administered parts of Jammu and Kashmir—as part of a Confidence Building Measure (CBM) between India and Pakistan. The trade was started at two trading points in Jammu and Kashmir: Uri-Muzaffarabad and Poonch-Rawalakot route. This is by far the most celebrated and successful Confidence Building Measure (CBM) between India and Pakistan. While several bilateral trade dialogues have not reaped expected result over the years, the success of this trade is worth mentioning (Hussain and Sinha, 2016a). The commencement of the LoC trade was aimed at converting the social interconnectedness into commercial interdependence of the two similar yet separate sides of LoC, rightfully presuming that trade would flourish on the basis of the emotional capital of the people living on both sides.

The cross-LoC trade used to be conducted through a Standard Operating Procedure mutually agreed by New Delhi and Islamabad. The SOP enlisted the 21 categories of items to be traded on zero tariffs. LoC trade used to take places 4 days a week, wherein the traders were allowed to exchange 70 trucks per day with a maximum goods tonnage of 1.5 ton per truck. The trade-in (import) and trade-out (export) goods had to be balanced to zero for each trading firm within a period of three months. This trade gave rise to a sizeable community of traders, transporters and laborers, who have benefitted from the process and have stake in keeping the trade process active (Hussain and Sinha, 2016b).

In recent years, the term LoC often began to be referred as Line of Commerce and Line of Cooperation. This is not surprising as trade volumes showed a substantial increase despite trade being on barter terms, lack of proper communication channels, absence of a banking system, dearth of legal enforcement of contracts and, limited number of

trade days and tradable goods. Since 2008, trade showed an average year-on-year growth of about 19 per cent reaching a cumulative value of approximately INR 7500 crores till April 2019. As per official sources, the total number of traders registered at Salamabad Trade Facilitation Centre (TFC), Uri, and Chakan-da-Bagh TFC, Poonch, is approximately 600. Furthermore, employment has been generated for more than 1.7 lakh laborers and truck drivers. Till April 2019, more than 1 lakh trucks laden with goods were exchanged, generating approximate freight revenue of INR 66.50 crores for the transporters of Jammu and Kashmir (Hussain and Singla, 2019a). While these numbers may be miniscule when looked at from the lens of overall trade of India, the impact of such CBMs go beyond standard metrics. The cases of thriving businesses and reunited families on both sides of LoC stand testimony to the story of change. These figures are simply indicative of the potential that this trade holds for social and economic development within Jammu and Kashmir. A sizeable community of traders, businesses, transporters and laborers have benefitted from this trade and have a stake in keeping the trade process active.

SUSPENSION OF CROSS-LOC TRADE

Despite its success in generating economic benefits, the operational and policy level deficiencies render the trade vulnerable to misconceptions and malpractices. Lack of clarity in SOP towards rules of origin, items list, GST/local taxation mechanisms are some of the limitations. These issues, coupled with a number of infrastructural issues such as a non-functional weighbridge, lack of CCTV cameras and truck scanners, and absence of regular communication channels warrant reforms in the trade practices. On 18th April 2019, the Ministry of Home Affairs, Government of India, decided to suspend the Cross- LoC Trade expressing concerns over

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'illegal inflows of weapons, narcotics and currency' in the country. 'A stricter regulatory regime' is expected for re-initiation of the trade (Hussain and Singla 2019b). The suspension of the trade has affected the local beneficiaries. Since the trade was suspended without any prior notice, the in-transit goods also led to loss to the traders particularly from the Poonch Rawalakot trade point since Uri-Muzaffarabad trade point was already shut since 6th March 2019 on account of infrastructure development. Due to the barter nature of this trade, traders who were awaiting the trade-in goods in

WAY FORWARD: RE-STRATEGIZING LOC TRADE TO REBUILD EMOTIONAL BRIDGES

While the political situation certainly impacts economic relationship between India and Pakistan, it is important to ensure that security and political tensions do not derail trade diplomacy. Suspending trade in retaliation to political and security developments will only undercut trust, and reverse the past efforts that were undertaken to establish a stable and long-term bilateral economic and political relationship.

In this regard, it is foremost important for the governments to remain committed to the Composite Dialogue process. Both India and Pakistan need to take steps collectively to re-initiate the economic engagements between the two countries. The immediate steps should be to ensure the pre-February 2019 status which would need Pakistan to withdraw trade ban and withdrawal of 200% duty imposition by India along with notifying MFN status to Pakistan. It is essential that in order to safeguard the trade normalization process in the interest of a broader peace process, no country should impose punitive trade measures on each other and punish the trading communities.

"Both India and Pakistan need to take steps collectively to re-initiate the economic engagements between the two countries. The immediate steps should be to ensure the pre-February 2019 status which would need Pakistan to withdraw trade ban and withdrawal of 200% duty imposition by India."

It is also important to continue working towards streamlining Cross LoC trade as well which has served as a powerful confidence building measure between the two countries in the last 10 years. A peaceful border and neighborhood will ultimately help the development agenda of India. Governments on both sides should begin by opening up the LoC trade and use it as a bargaining chip to normalize the otherwise latent India-Pakistan relationship. Governments need to ensure that the LoC trade continues with revised strategy and also co-exists along with mainstream India-Pakistan trade. The revised strategy should also address the concerns of mainstream India and Pakistan traders, particularly the traders in Amritsar who have in the past raised concerns with the operations and modalities of Cross LoC trade. Stakeholders from both trading communities can coexist and benefit the respective border economies of Punjab and Jammu and Kashmir.

Some of the suggested measures towards streamlining and re-initiating the cross-LoC trade would include the following steps from the governments. First, the lack of transparency needs to be addressed in complete ecosystem including the Standard Operating Procedure (SOP), invoicing, GST norms, trader registration, among others. The SOP must be revised so that it specifies the modality of movement of trucks across the LoC as well as gives clarity on filing of GST/other local taxes. Clarifications on HS codes to avoid misrepresentation of commodities, rules of origin to avoid third country goods, GST rates & inter-state taxation to avoid tax evasions, and trader registration policy to ensure credible traders are involved in this trade are some of the first steps needed to address the long standing concerns around cross-LoC trade (Hussain and Singla 2019b). Second, systems and procedures at the Trade Facilitation Centers - Uri and Poonch need to be digitized. Digital platforms to monitor invoicing, traders' records, balancing, truck details, etc. will ensure real

"Stakeholders from both trading communities can coexist and benefit the respective border economies of Punjab and Jammu and Kashmir."

time check by the authorities, leaving lesser room for misuse. Third, in case of non-compliance, a strict 'trader de-listing policy' needs to be put in place wherein any trader with a negative balance in barter for more than the designated time period can be suspended from conducting trade. Fourth, regular meetings must also be held between the TFOs of both sides of the LoC to ensure co-ordination of such activities and exchange of the list of suspended/banned traders (Hussain 2017). Finally, infrastructure upgradation such as installation of scanners and functional CCTV cameras for security, and calibration of weigh-bridges, are essential for checking the inflow of banned items, narcotics and weapons. mainstream India and Pakistan traders, particularly the traders in Amritsar who have in the past raised concerns with the operations and modalities of Cross LoC trade. Stakeholders from both trading communities can coexist and benefit the respective border economies of Punjab and Jammu and Kashmir.

Some of the suggested measures towards streamlining and re-initiating the cross-LoC trade would include the following steps from the governments. First, the lack of transparency needs to be addressed in complete ecosystem including the Standard Operating Procedure (SOP), invoicing, GST norms, trader registration, among others. The SOP must be revised so that it specifies the modality of movement of trucks across the LoC as well as gives clarity on filing of GST/other local taxes. Clarifications on HS codes to avoid misrepresentation of commodities, rules of origin to avoid third country goods, GST rates & inter-state taxation to avoid tax evasions, and trader registration policy to ensure credible traders are involved in this trade are some of the first steps needed to address the long standing concerns around cross-LoC trade (Hussain and Singla 2019b). Second, systems and procedures at the Trade Facilitation Centers - Uri and Poonch need to be digitized. Digital platforms to monitor nvoicing, traders' records, balancing, truck details, etc. will ensure real time check by the authorities, leaving lesser room for misuse. Third, in case of non-compliance, a strict 'trader de-listing policy' needs to be put in place wherein any trader with a negative balance in barter for more than the designated time period can be suspended from conducting trade. Fourth, regular meetings must also be held between the TFOs of both sides of the LoC to ensure co-ordination of such activities and exchange of the list of suspended/banned traders (Hussain 2017). Finally, infrastructure upgradation such as installation of scanners and functional CCTV cameras for security, and calibration of weigh-bridges, are essential for checking the inflow of banned items, narcotics and weapons.

[1] Pakistan continued to trade on a positive list of limited items.

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CHALLENGES IN PROMOTING BILATERAL TRADE IN PHARMACEUTICALS BETWEEN INDIA AND PAKISTAN

REJI K. JOSEPH

The second half of 2019 witnessed major turbulence in the trade engagement between India and Pakistan. As a response to the revocation of special status of Jammu and Kashmir under Article 370 of the Indian Constitution, Government of Pakistan decided to end all trade engagements with India by amending Export and Import Policy Orders of 2016, on 9 August 2019. However, a later amendment to the Import and Export Policy Orders on 2nd September 2019 exempted pharmaceuticals from the purview of ban on exports and imports. The amendment read that the ban “shall not apply to therapeutic products regulated by Drug Regulatory Authority of Pakistan” (Govt. of Pakistan 2019). What prompted the government of Pakistan to exempt pharmaceutical products from the ban? Does this exemption mean that India has an advantage in pharmaceuticals as compared to other countries and therefore there is scope for promoting trade further between the two countries?

NATURE OF TRADE IN PHARMACEUTICALS BETWEEN THE TWO COUNTRIES

Pharmaceuticals are essential commodities that are required for the protection and promotion of human health. Therefore, unlike many other commodities, availability of medicines in the market can't be delayed on

"What prompted the government of Pakistan to exempt pharmaceutical products from the ban? Does this exemption mean that India has an advantage in pharmaceuticals as compared to other countries and therefore there is scope for promoting trade further between the two countries?"

any ground. Those countries which do not have adequate capabilities for the manufacture of medicines, will be importing them. Data on trade in pharmaceuticals of both the countries shows that there is huge disparity in the magnitude of trade by them. India's exports are 60 times more than that of Pakistan, while in trade balance Pakistan has a deficit, while India has a surplus (Table 1).

Table 1: Trade in Pharmaceuticals by India and Pakistan (in US\$ Million)

Year	India			Pakistan		
	Export	Import	Trade Balance	Export	Import	Trade Balance
2009	5923.3	2048.5	3874.9	157.2	687.5	-530.3
2010	7127.0	2437.0	4689.9	135.6	650.9	-515.3
2011	9516.3	2738.6	6777.7	150.7	710.5	-559.8
2012	10892.6	3073.2	7819.4	168.1	760.3	-592.2
2013	13250.2	3066.0	10184.1	169.5	825.3	-655.8
2014	13040.8	3193.3	9847.4	198.7	929.4	-730.7
2015	13952.3	3154.4	10797.8	213.5	866.7	-653.2
2016	14406.5	3165.1	11241.4	207.9	933.4	-725.5
2017	14332.4	3438.0	10894.4	207.8	1027.8	-820
2018	15799.2	5012.1	10787.1	198.7	1132.6	-933.9
Total	118240.6	31326.3	86914.2	1807.7	8524.4	-6716.7

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

As far as India is concerned, pharma trade with Pakistan is negligible when compared to its global pharma trade (Table 2). Import from Pakistan is almost nil. Therefore, relaxation that Government of Pakistan has granted on export of pharmaceuticals to India doesn't make much sense. For Pakistan also, trade with India is not very substantial except that imports from India constitute around six percent of its total pharma imports.

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Table 2: Bilateral trade in pharmaceuticals between India and Pakistan (US\$ Million)

Year	India				Pakistan			
	Export		Import		Export		Import	
	To Pak.	Exp. to Pak. % of total pharma exp.	From Pak.	Imp. From Pak. % of total pharma imp.	To India	Exp. to India % of total pharma exp.	From India	Imp. From India % of total pharma imp.
2009	31.7	0.5	0.0	0.0	0.0	0.0	28.3	4.1
2010	29.2	0.4	0.0	0.0	0.0	0.0	42.4	6.5
2011	45.9	0.5	0.1	0.0	0.0	0.0	45.7	6.4
2012	40.7	0.4	0.1	0.0	0.4	0.2	35.7	4.7
2013	54.2	0.4	0.0	0.0	0.1	0.1	40.2	4.9
2014	63.3	0.5	0.0	0.0	0.2	0.1	65.2	7.0
2015	47.8	0.3	0.0	0.0	0.3	0.2	49.9	5.8
2016	63.7	0.4	0.0	0.0	0.2	0.1	59.6	6.4
2017	81.8	0.6	0.1	0.0	0.0	0.0	73.7	7.2
2018	92.2	0.6	0.0	0.0	0.0	0.0	89.4	7.9
Total	550.5	0.5	0.3	0.0	1.2	0.1	530.2	6.2

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

Trade in pharmaceuticals essentially consists of two categories of products - formulations and bulk drugs. Formulations are the final dosage forms that are consumed, for example tablets of various dosage forms. Bulk drugs or active pharmaceutical ingredients (APIs) are those substances with medicinal property which are used for the manufacture of formulations. Production of bulk drugs involves more technology intensive phase of production of pharmaceuticals. Whereas manufacture of formulations requires competence in ensuring safety and efficacy of medicines.

The Standard International Trade Classification (SITC) of United Nations is often used for identifying formulations and bulk drugs in trade. SITC does not explicitly mentions the term 'formulations' and 'bulk drugs', but classifies pharmaceutical products under two codes: Code 542 'Medicaments (including veterinary medicaments)' representing formulations and Code 541 'Medicinal and Pharmaceutical products, other than medicaments of group 542' representing bulk drugs (Joseph 2015).

Data on Pakistan's trade in formulations and bulk drugs is presented in Table 3. It can be observed that Pakistan's trade deficit in pharmaceuticals is mostly on account of import of bulk drugs. Two-third

of the trade deficit is contributed by the bulk drugs category. In order to capture the nature of pharma products traded, cross border trade data on bulk drugs based on SITC is compiled from UN-Comtrade database. Comtrade compiles the data from the trade statistics reported by countries.

Table 3: Export and Import of Formulations and Bulk Drugs by Pakistan (in US\$ Million)

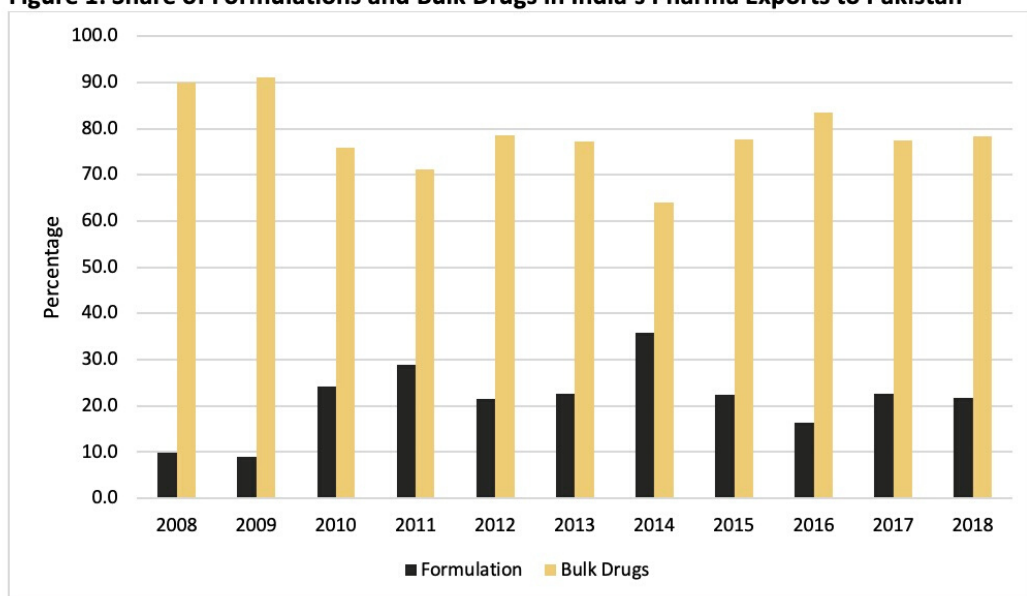
Year	Formulations			Bulk Drugs			Share in Total Pharma Trade Deficit (%)	
	Export	Import	Trade Balance	Export	Import	Trade Balance	Formulations	Bulk Drugs
2009	130.5	313.7	-183.3	26.7	373.7	-347.0	34.6	65.4
2010	104.0	291.3	-187.3	31.6	359.6	-328.0	36.3	63.7
2011	118.0	315.6	-197.7	32.8	394.9	-362.1	35.3	64.7
2012	141.5	310.2	-168.7	26.6	450.1	-423.6	28.5	71.5
2013	153.4	333.6	-180.1	16.1	491.8	-475.7	27.5	72.5
2014	184.1	384.6	-200.5	14.5	544.8	-530.2	27.4	72.6
2015	200.6	368.5	-167.9	12.8	498.2	-485.4	25.7	74.3
2016	200.0	424.3	-224.3	7.9	509.1	-501.2	30.9	69.1
2017	202.7	487.3	-284.6	5.1	540.5	-535.4	34.7	65.3
2018	193.8	540.5	-346.6	4.8	592.1	-587.2	37.1	62.9
Total	1628.7	3769.6	-2140.8	178.9	4754.8	-4575.8	31.9	68.1

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

India's pharma export to Pakistan is constituted mostly by bulk drugs (Figure 1). It constitutes about 80 percent of its pharma exports. However, exports from India constitute only about 10 percent of Pakistan's import of bulk drugs (Table 4). In formulations, share of imports from India is just 3 percent.

"India's pharma export to Pakistan is constituted mostly by bulk drugs. It constitutes about 80 percent of its pharma exports. However, exports from India constitute only about 10 percent of Pakistan's import of bulk drugs."

Figure 1: Share of Formulations and Bulk Drugs in India’s Pharma Exports to Pakistan



Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

Table 4: Share of imports from India in Pakistan’s total import of formulations bulk drugs (in %)

Year	Formulations	Bulk Drugs
2008	1.5	11.9
2009	0.8	6.9
2010	3.5	8.9
2011	4.2	8.2
2012	2.5	6.2
2013	2.7	6.3
2014	6.1	7.7
2015	3.0	7.8
2016	2.3	9.8
2017	3.4	10.6
2018	3.6	11.8

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

Pakistan's dependence on India for pharmaceuticals is concentrated in bulk drugs. It is estimated that there were 672 pharma firms operating in Pakistan in 2017 of which 27 were MNCs (PRIME and PPMA 2017). The domestic companies mainly produce off-patent medicines and sustain on supply of generic medicines to government institutions[i]. These firms rely on imported raw materials - bulk drugs, for the production of formulations. Although government of Pakistan has mandated compulsory local production of bulk drugs, especially in antibiotics, it is not sufficient to meet the requirements (Babar et.al. 2013). Therefore, Pakistan imports bulk drugs from countries like China, India and Germany. Pakistan is in need of bulk drugs and this might have prompted it to climb down on ban on imports from India. But, there are major challenges in promoting further bulk drug export from India to Pakistan.

CHALLENGES IN PROMOTING TRADE IN BULK DRUGS

Is there any scope for increasing India's export of bulk drugs to Pakistan? Not really. Because it is a segment in which India does not have a competitive advantage anymore. India had built up a vibrant bulk drug industry during the post-independence period, from the scratch, through carefully crafted policy interventions. Government of India wanted to develop an indigenous pharma industry, engaging in the production of medicines, from the very basic stages. This was to ensure that essential medicines are available in the country at reasonable prices. However, Indian companies were not inclined to engage in the production of bulk drugs. Report of the Hathi Committee (Government of India 1975) had found that the capital invested-turnover ratio for bulk drugs was much lower as compared to formulations; 1:1 for bulk drugs at its best and 1:2.6 for formulations on average which in some cases was as high as 1:7.2.

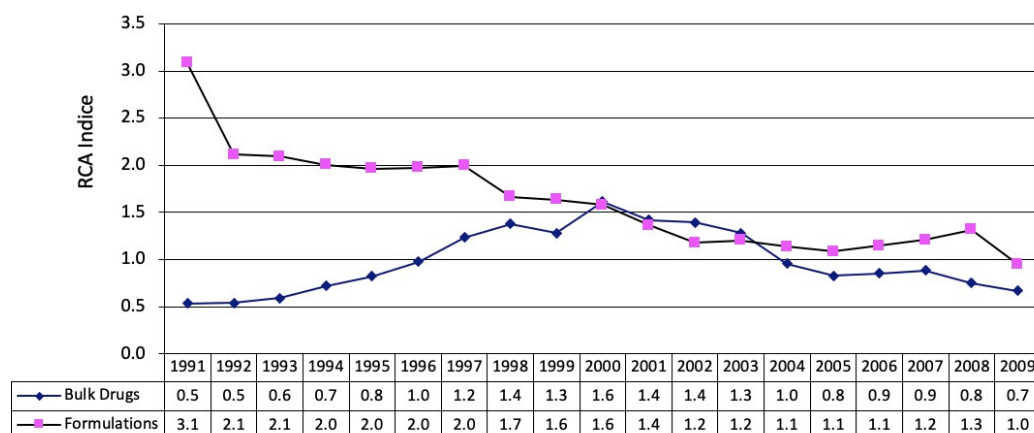
"Pakistan is in need of bulk drugs and this might have prompted it to climb down on ban on imports from India. But, there are major challenges in promoting further bulk drug export from India to Pakistan."

Therefore, the government of India adopted a set of policies that compelled Indian pharma companies to start producing from the basic stages. One such important measure was the introduction of 'ratio parameter' which linked the sale of formulations to that of production of bulk drugs. This policy was complemented by the intervention of the public sector companies in the market. Wherever, the companies had difficulties in the production of bulk drugs, the public sector firms manufactured and distributed the drugs. Trade policy was also used to build up an indigenous industry. Import of bulk drugs and formulations was restricted. All these measures led to the emergence of a strong generic pharma industry in India. The cost competence of Indian pharmaceutical firms resulted in Indian pharma industry capturing a significant share of global market for generic medicines.

However, the competence that the Indian pharma industry had acquired in the production of bulk drugs had declined since the introduction of economic reforms. Abolition of restrictions on import led to the influx of cheaper bulk drugs from China. China had been building up capabilities in bulk drugs segment through its various science and technology programmes. The report of the Task Force on Strategy for Enhancing Exports of Pharmaceutical Products (Government of India 2008) pointed out that the fermentation sector, one of the segments of biotechnology that has been instrumental in shaping Indian antibiotics segment in the early decades of growth of the Indian pharmaceutical industry, has moved to China due to lower energy costs there.

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Figure 2: Revealed Comparative Advantage of Formulations and Bulk Drugs from India



Source: Reproduced from Joseph (2015).

Joseph (2015) analysed the revealed comparative advantage (RCA), an index that compares the advantage that a country has in a product in the global market, finds that India's advantage in bulk drugs has been declining since 2000. The index may take values from zero to infinity with values greater than one indicating the existence of RCA. In fact, the index for bulk drugs fell below one from 2004 onwards indicating that India does not have an advantage globally in the export of bulk drugs (Figure 2). The index also shows that India has an advantage in formulations. The fact that India's exports to Pakistan is concentrated in bulk drugs in which India does not have an advantage casts doubts on the sustainability of India-Pak trade in pharmaceuticals.

Another factor that would influence the India-Pak trade in pharmaceuticals is the imports from China. An increasing import of bulk drugs from China by Pakistan, which is highly likely, will definitely have an adverse impact on whatever trade exists between the India and Pakistan.

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Table 5: Pakistan's import of pharmaceuticals from China

Year	Import from China (US\$Mn)		Share of China in Pak's total import of pharma	
	Formulations	Bulk Drugs	Formulations	Bulk Drugs
2009	24.2	72.6	7.7	19.4
2010	20.3	78.9	7.0	21.9
2011	23.0	86.7	7.3	22.0
2012	21.8	76.8	7.0	17.1
2013	19.8	69.4	5.9	14.1
2014	26.7	91.0	6.9	16.7
2015	27.8	101.7	7.6	20.4
2016	27.5	125.7	6.5	24.7
2017	37.3	151.4	7.7	28.0
2018	35.0	156.7	6.5	26.5

Source: Compiled from UN-COMTRADE (SITC Rev.4), accessed from WITS, World Bank

Table 5 shows that Imports from China has been steadily increasing in the case of bulk drugs. It's share has increased from 17 percent in 2008 to 27 percent in 2018. Growing imports from China will diminish whatever scope is left for promoting export of bulk drugs from India to Pakistan.

CHALLENGES IN PROMOTING TRADE IN FORMULATIONS

India's exports of formulations, the segment in which India has a comparative advantage, is very low between the two countries. This is mainly on account of restrictions imposed on import of medicines from India. When the South Asia Free Trade Area (SAFTA) Agreement was signed in 2004, Pakistan had maintained a list of 14 formulations at six-digit harmonised commodity description and coding systems (HS) (Pant

"The import Policy Order of 2016 maintains a negative list of 1209 products at eight-digit HS against India, of which 25 are pertaining to formulations. Due to this negative list, Indian firms can't export to Pakistan. Even a relaxation on these restrictions may not enhance India's export of formulations to Pakistan due to the drug price control policy of Pakistan."

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Even a relaxation on these restrictions may not enhance India's export of formulations to Pakistan due to the drug price control policy of Pakistan. Under the Drug Regulatory Authority of Pakistan Act 2012 (DRAP Act), the country introduced a reference pricing system in 2016 for the regulation of medicine prices in order to ensure that medicines are sold in the market at reasonable prices. Many countries in the developing world pursue various forms of price control to ensure affordability of medicines. India also has a policy to regulate the prices of medicines. But in Pakistan, prices of medicines in India has been used as a benchmark for setting the price. For those drugs available in India and Bangladesh, average prices in both the countries would be used for capping the selling price (Lee et al. 2017). As the selling price in Pakistan would be in close range as that in India, firms from India may not find it profitable to export to Pakistan.

POSSIBLE AREA OF COOPERATION

Analysis in this paper shows that there is not much scope for enhancing trade in pharmaceuticals between the two countries. This doesn't mean that there is no scope left for cooperation in the area of pharmaceuticals. An area where the two countries could put resources together is in developing technologies for the production of bulk drugs to promote domestic manufacturing. Realising the magnitude of import dependence on China for bulk drugs, Government of India had appointed a committee headed by V.M. Katoch to make recommendations on

"An area where the two countries could put resources together is in developing technologies for the production of bulk drugs to promote domestic manufacturing. As bulk drugs are critical for the operations of Pharma industry in both the countries, there is scope for them to come together."

promoting domestic manufacturing of bulk drugs. Major recommendations of the Katoch Committee report (2015) included establishment of six bulk drug parks, tax rebates, import duty exemption for capital goods for R&D and assured procurement. However, things haven't moved forward. The Indian Government's efforts to encourage large private firms to establish bulk drugs parks have not been successful.

Development of appropriate technologies have been missing from recent efforts in India to revive the bulk drug industry. As bulk drugs are critical for the operations of pharma industry in both the countries, there is scope for them to come together. Both the countries have been making efforts to encourage indigenous production of bulk drugs, albeit unsuccessfully. Development of new technologies for the production of bulk drugs is a requirement that both the countries face.

Given the state of political relations between the two countries, co-operation in the area of technology is still a distant dream. The SAFTA process and the Science and Technology Co-operation initiative under the SAARC have been held hostage to the rivalry between the two countries. Nevertheless, any thinking on promoting engagement between the two countries in the area of pharmaceuticals should focus more on development of new technologies and not on trade.

[1] Muhammad Azif and Muhammad Usman Awan, Pakistani Pharmaceutical Industry in WTO Regime - Issues and Prospects, http://pu.edu.pk/images/publication/PPI_in_WTO_%20regime-Issues_and_Prospects.pdf

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INDIA, PAKISTAN AND THE FUTURE OF INTERCOUNTRY WATER SHARING: CONFLICT OR COOPERATION?

MOHAN GURUSWAMY

India and Pakistan are children of the same history. Even though they're like antagonistic Siamese twins joined at the head, they are far from seeing similar rationale with respect to policy making. The two countries have been locked since birth in an intractable animosity born out of different perceptions of history which has manifested itself in a territorial dispute. The Kashmir problem has been festering for seven decades and it is unlikely that it will go away easily in the foreseeable future. However, bigger events like availability of resources and climate change are overtaking as serious concerns for both the countries.

Within South Asia, water sharing has been a more contentious issue on India's western side where it shares the Indus system of rivers with Pakistan. Though the Indus Water Treaty (IWT), signed in 1960 between India and Pakistan is often referred to as one of the most successful treaties regarding fresh water sharing, the treaty's design which focusses on division of the Indus river system's waters between the two neighbours is increasingly being put under strain due to rising water stress driven by development, population growth and climate change.

INDUS WATER TREATY AND WATER SHARING- DOUBTS, DISTRESS AND SOME SUCCESS

In 1947, when the subcontinent was partitioned, boundaries were drawn

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between India and Pakistan without taking into consideration the natural irrigation capabilities of the land. In April 1948, exercising its access to the upper riparian region, India cut off the supply of fresh water to Pakistan (Kasuri 2015: 247). India's basic demand was that Pakistan should recognise India's claim over the rivers in Indian Punjab as well as Pakistan Punjab. Under the aegis of the World Bank, negotiations began in 1952 to deliberate and discuss a probable solution to the water sharing crisis which culminated in the signing of the IWT after 9 years of negotiations[i].

With the signing of the IWT on September 19th 1960, water of the Indus river system was divided[ii] between eastern and western rivers. The eastern rivers of Beas, Ravi and Sutlej would be under Indian control and the western waters of Indus, Chenab and Jhelum came under the purview of Pakistan. Given the backdrop of the numerous wars that have been fought between India and Pakistan since 1947, the IWT- brokered by the World Bank [iii] was envisaged as a model of cooperation and goodwill. The total water share allocated to India was 33 Million Acre Feet (MAF) for its usage out of the total of 210 MAF (amounting to 16% of the total) carried by the river system (World Bank 2014).

However, given the geographical location of the Indus river system, Pakistan continues to fear the possibility of India stopping the flow of Indus waters to Pakistan. It frequently accuses India of delay in sharing information about its hydropower projects and not being transparent (Khalid 2008). These include but are not limited to the Baglihar and Kishenganga dams as well as the Wullar barrage (Romshoo 2012). Pakistan has often raised its doubts over India's run-of-the-river hydro-projects on the Chenab and Jhelum. It must be noted at this point that India's hydropower projects on the western rivers of the Indus river

"Any project aimed at diverting the use or stopping water flow would take decades to construct. In addition, the treaty makes it almost impossible to conceal such projects."

system have no capacity to alter the flow of river water. In addition, no storage capacities have been built on the western rivers, despite the treaty permitting such constructions. Any project aimed at diverting the use or stopping water flow would take decades to construct (The Washington Post 2019). In addition, the treaty makes it almost impossible to conceal such projects as section 3(III) of the IWT gives the power to the Indus Water Commission (which is constituted by Indus Water Commissioners of the two countries) to:

“undertake, once in every five years, a general tour of inspection of the Rivers for ascertaining the facts connected with various developments and works on the Rivers,” (Cullet and Koonan 2009)

Further exasperating the situation is the politicization of public discourse around the sharing of river waters in both countries for the express purpose of political point scoring. Tempers often flare up to such an extent that the issue has been flagged as one which could lead to a full scale war by experts (Bajpae 2006; Romshoo 2012; Kugelman 2016). Therefore, though highly improbable, the myth of India “turning of the taps” or “diverting rivers” continues to live on.

However, with the Kashmir dispute and a long history of animosity between the two countries as the backdrop, the threat of mixing political rhetoric and bilateral commitments with regards to Indus waters can never be avoided, even if in reality, the hands of both countries are tied behind their backs. This political backdrop means that while the World Bank may have envisaged a sharing of the waters of the Indus river system, in reality a division has resulted in the creation of another issue over which the two “enemy” countries must fight each other. As a result, despite the existence of outlined reconciliatory mechanisms, the IWT continues to evoke interest of a socio-political and strategic nature.

"To understand Pakistan's apprehensions regarding the sharing of Indus waters and how the issue is easy to be politicized, it is important to recognize that Pakistan's agriculture sector is heavily dependent on irrigation."

To understand Pakistan's apprehensions regarding the sharing of Indus waters and how the issue is easy to be politicized, it is important to recognize that Pakistan's agriculture sector is heavily dependent on irrigation. Up to 80% of Pakistan's agricultural lands are irrigated by waters from the Indus river system. Agriculture is also the biggest utilizer of Pakistan's water withdrawals with 94% of it being consumed by this sector. To provide waters on such a large scale, Pakistan has what it calls "the world's largest contiguous irrigation system"[iv] Pakistan's situation is further made precarious by the difference in water availability due to varying seasons with the variability being further pronounced by climate change. The Indus rivers, especially the western three are largely fed by snow and glacier melt making them vulnerable to changing seasons and climate change. For instance, the Indus river at Kalabagh changes from 70 km³ in the summer season and reduces to 12 km³ in the winter. Another area adding to Pakistan's fears regarding water scarcity its unmanaged annual average water-runoff of 150 km³-200 km³. Pakistan's heavy dependence on increasingly precarious irrigation fed agriculture therefore make it acutely aware of its vulnerabilities.

In addition, several experts have flagged looming water distress for the country in its immediate future. According to the Pakistan Council of Research in Water Resources, Pakistan officially crossed the water scarcity line in 2005. The United Nations Development Program (UNDP) and the Pakistan Council of Research in Water Resources have issued warnings about the upcoming scarcity of groundwater in just six years. According to some estimates, Pakistan is the fourth-largest user of its groundwater and over 70% of drinking requirements and 50% of irrigation needs are met through groundwater extraction. Due to excessive pumping, it is estimated that water tables could fall by as much as 20% by 2025. It should be noted that Pakistan has one of the lowest per-capita access to water in the world (Kugelman and Hathaway 2009). The annual availability per person is 35,300 cubic feet, putting the country on the threshold of water scarcity.

Experts warn that Pakistan is on the brink of experiencing alarming levels of water shortage by 2024[v]. With changing ecological dynamics and increasing threat of climate change, along with other issues, availability of water has emerged as a key concern for Pakistan. According to climate researchers at the German-watch, Pakistan ranks eighth on the Global

Climate Risk Index, with over 145 catastrophic events – heat waves, droughts and floods – reported in the past 20 years. On the other hand, India ranks among the top 20 vulnerable countries in terms of climate risk. This shortage is mainly brought about due to the misuse of water in agricultural practices, which use around ninety percent of the water resources.

In the backdrop of extreme water scarcity, both India and Pakistan have witnessed a long history of the Indus waters being politicised. The politicization surrounding IWT and Indus rivers system is largely due to three reasons: territorial dispute over Kashmir, unabated terrorism and Pakistan's heavy reliance on river waters for irrigation, industry and energy. These three have collectively securitized conversations around the Indus Waters not only in conventional terms but also w.r.t. human security. Most recently after the 2019 Pulwama terror attack, Indian Prime Minister Narendra Modi announced his government's plans to review the IWT with his now famous lines "Blood and Water cannot flow together" (Indian Express 2016). In Pakistan, several individuals of prominence such as ex ISI Chief, Hamid Gul and Indus Water Basin Council's former chief Hasan Dahir have accused India of stopping Indus water flow in cahoots with the Israeli and Jewish lobby as part of a grand strategy to cause water, food and electricity shortage in the country. Such inflammatory rhetoric has worked only to hurt the interests of both Indians and Pakistanis who rely on the waters of the Indus river system for their daily livelihood. The future of intercountry water sharing between India and Pakistan should be shielded from such rhetoric that is dis-jointed with the facts on the ground.

"The politicization surrounding IWT and Indus rivers system is largely due to three reasons: territorial dispute over Kashmir, unabated terrorism and Pakistan's heavy reliance on river waters for irrigation, industry and energy."

WATER SHARING IN A WATER SCARCE SOUTH ASIA: SOME RECOMMENDATIONS

It will not be incorrect to assert that shortage of water is a reality for South Asia today. As it witnesses rapid rise in water demand and change in societal water use pattern driven by accelerated urbanization and change in lifestyles, drinking water and other usable waters in many areas is becoming increasingly scarce. At present, about 60–80% of the domestic water supplies across South Asia are met by groundwater. Irrigation accounts for almost 85% of groundwater withdrawals and is considered to be the primary contributor to groundwater depletion with the maximum possible groundwater footprint observed in the Gangetic aquifers.

In Pakistan the main contributors to water stress are poor water resource management and poor water service delivery, including irrigation and drainage services. The problem is further compounded by the lack of reliable water data, subsequent analysis and consequent poor planning and allocation, all leading to environmentally unviable methods of water withdrawal, causing an alarming reduction in groundwater. On the other hand in India, water stress is attributed first and foremost to massive population growth and second to the lack of sufficient urban water treatment facilities, which prevent the usability of river water for drinking and irrigation. Like Pakistan, over-extraction of groundwater has also been recognized as a major contributor to water stress in India. Water stress therefore is no longer only an emerging threat for the region but has begun to have real consequences on the lives of people.

However, keeping the recent political bickering aside, the Indus Waters Treaty, in effect since 1960, has managed to survive the test of time.

"Both, India and Pakistan need to hugely increase food production to meet the demands of growing populations and do so using water efficient means."

Despite IWT's failure to comprehensively address water management issues, delivering instead a mechanism to divide waters, its signing is proof of the ability of these two countries to cooperate.

To effectively deal with the brimming situation of water stress the following measures may be adopted:

- Both, India and Pakistan need to hugely increase food production to meet the demands of growing populations and do so using water efficient means. India and Pakistan are inefficient producers of food grains and agricultural commodities such as sugar and cotton. By virtue of sharing agro - climatic zones, they will benefit by sharing knowledge and experience.
- Since both countries are increasingly dependent on aquifers of Punjab, Rajasthan, and Sindh for irrigation purposes, it is vital that the two countries jointly map aquifers and plan on how best to use these resources and replenish them.
- Focus should be on adopting methods such as hydrological surveys and joint management frameworks for sustainable water management such as an integrated basin management system. Even though water wars may seem like a distant possibility, water led migration will definitely emerge as an issue in the short-term future in India as well as Pakistan.
- More dialogue, less politics: On the diplomatic front, its necessary that India and Pakistan work jointly to counter the impending destruction that might be caused by climate change and water scarcity. Political differences won't play a role in a scenario where environmental

"Focus should be on adopting methods such as hydrological surveys and joint management frameworks for sustainable water management such as an integrated basin management system."

concerns cause mutual destruction. Continuation of the Indus Water Treaty is a great sign in that direction, but in the future, leadership from both sides must refrain from employing water as a political weapon. Sustained dialogue can offer a platform to develop a common water management policy as the issue of water will eventually emerge as a question of survival.

Based on current projections, the Indus river system is expected to fall below 2000 flow levels between 2030 and 2050. The drop-off is estimated to be most serious between 2030 and 2040, with a new equilibrium flow of 20 percent below that of 2000 reached after 2060. Given these developments, population growth and climate change driven challenges, the response to resulting human security concerns on both sides of the border will necessitate collective action in the near future. Concerted efforts by intellectual communities in both countries may be made to balance politicized rhetoric with research based cooperative efforts.

"Population growth and climate change driven challenges and the response to resulting human security concerns on both sides of the border will necessitate collective action in the near future."

[i] <https://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank>

[ii] The necessity was the irrigation of Western Punjab region, now under the territory of Pakistan in the aftermath of the Partition.

See <https://www.epw.in/engage/article/india-pakistan-indus-water-treaty>

[iii] Pakistan initially proposed seeking the opinion of the International Court of Justice, an appeal that was rejected by India.

[iv] http://www.fao.org/nr/water/aquastat/countries_regions/Profile_segments/P AK-IrrDr_fra.stm

[v] <https://www.dw.com/en/water-crisis-why-is-pakistan-running-dry/a-44110280>

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PAKISTAN & INDIA: BRIDGING THE ENERGY DIVIDE

LYDIA POWELL

In the last three decades a number of forums and scholarly writings have generated narratives and counter-narratives on Pakistan and India's common energy interests (Trivedi 2008). Securing dependable supplies of energy and investing in cross border gas pipelines & electricity transmission lines are promoted as means towards this goal (Singh 2013, Iftikhar, et al. 2015). While the empirical and normative attractiveness of the narrative that favours trade has captivated academics and development funding agencies alike, reality is following the script of the less compelling counter narrative (Khan 2009). There is virtually no trade in energy sources such as petroleum products (petrol, diesel, kerosene etc) that are relatively easy to transport across the border in both small and large quantities. This is despite the fact that India is a net exporter of refined petroleum products while Pakistan is a net importer. No cross-border energy infrastructure such as gas pipelines or electricity transmission lines have been constructed despite over three decades of dialogue and discussion over proposed projects (Curtis, Cohen and Graham 2008).

Among a wide range of existing reasons for virtually no energy trade is the fact that the narratives on bi-lateral energy trade between Pakistan and India often conflate the relatively dynamic concept of the market and its preferences with the relatively static concept of sovereign nations

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and their preferences which has distorted observations and conclusions on the issue (Krugman 1991). Terms such as “trade”, “cooperation”, “connectivity” and “integration” are used interchangeably in these narratives that has led to some level of theoretical anarchy and contributed to the pessimism over prospects energy trade (Schmitter 2007).

NARRATIVES ON BI-LATERAL ENERGY TRADE

THE TRADE NARRATIVE

The narrative that favours energy trade between Pakistan and India emphasises on the conclusion that trade will maximise individual or absolute economic and efficiency gains of each country (Kugelmann and Hathaway 2013) (“a win-win scenario”) as opposed to relative gains (PTI 2019) (“a win-lose scenario”) for the two countries. This hopeful prognosis draws primarily from the concepts of liberal economic theories and sees bi-lateral and regional energy trade in South Asia as a means to achieve economic progress. Inter-regional and intra-regional trade for accessing vital energy supplies from within and outside the region is seen as an obvious response to overcome the challenge of poor energy resource endowments of South Asian countries (Singh 2013). The rationale is that trade will enable countries in the region that possess different natural resources and different efficiencies in the production of energy to specialise in the production of those resources over which they have a comparative advantage and exchange it for other services that other countries can produce more efficiently.

In theory, both Pakistan and India will benefit from the exchange but benefits may not be equal in terms of quantity and quality. The recommendation is that Pakistan and India should trade in order to take

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advantage of their differences and because there are inherent advantages in specialisation (Krugman 1991). Bilateral trade in energy between the two countries has an additional advantage as it benefits from shorter geographic distance that reduces transportation or transmission costs in the exchange of energy sources and services.

Significant differences in energy resource endowments and consumption patterns in the two countries are highlighted to make the case for exploitation of resources and exchange through trade for mutual benefit. Both Pakistan and India have high levels of energy import dependence for oil and are vulnerable to volatility in global crude prices. India, the largest South Asian economy imports 85 percent of its crude oil needs while Pakistan the second largest, imports about 80 percent of its crude oil needs (BP 2019). Pakistan is a net importer of most petroleum products while India is a net exporter (Rahman, et al. 2012). Though India is a net importer of certain refined products such as Liquid Petroleum Gas (LPG) it has surplus refining capacity of about 60 million tonnes per annum which is more than twice the import needs of other countries in the South Asian region (Mohanty 2016). Logistics optimisation software that provides optimal trade flow directions for refined products in South Asia have shown that refinery product flow from Indian refineries into other South Asian economies offer better cost and infrastructure optimization compared to alternative trade flow directions (Dhar 2012). This is especially true in the case of Pakistan as India's export oriented coastal refineries are in the East coast that is geographically close to Pakistan.

Other arguments within the trade narrative include cost reductions that could accrue on account of economies of scale especially with bulk crude oil and liquid natural gas (LNG) procurement, large scale refinery and LNG terminal operations and also with shared infrastructure for transport and transmission of energy that cater to the entire region (Krugman 1991). In theory, even without shared infrastructure, standardisation of technical parameters for procurement of equipment jointly is known to offer substantial cost savings (Gomes 2013). Development of common protocol for trade, standardisation of rules and procedures and harmonisation of the legal and regulatory framework for trade in energy, particularly electricity can reduce the cost of cross border transactions. The rationale of "economies of scale" also apply to renewable energy derived from solar photovoltaic and concentrated solar thermal projects as well as wind

energy projects (MIT 2015). Larger the scale and scope of the renewable energy plant lower is the unit cost of energy generation (MIT 2015). Overall harmonisation of hard infrastructure for energy transport and soft infrastructure that facilitates such transport carries significant economic benefits for the South Asian region.

The conclusion drawn from the trade narrative is that both Pakistan and India can maximise individual (absolute) economic and efficiency gains through energy trade but both countries are yet to make significant progress, partly on account of inadequate financial and technical resources and partly on account of the lack of appreciation for the benefits of trade. In response a number of techno-economic viability studies on specific energy trade and infrastructure projects have been carried out by development assistance agencies such as the Asian Development Bank (ADB) (Wijayatunga, Chattopadhyay and Fernando 2015) in the context of cross border gas pipelines (Zahid and Nazuk 2007) and the United States Aid Programme USAID (through SARIEI, South Asia Regional Initiative for Energy Integration) in the context of cross border electricity transmission lines in South Asia (Rahman, et al. 2012) to highlight the benefits of cross border energy trade. Essentially these reports frame South Asias' challenge of regional energy cooperation as a fundamental problem of economic and technological inefficiency that can be corrected with the right input of technical knowledge and financial assistance (Nigel 2014).

THE INSTITUTIONAL NARRATIVE

The institutionalist narrative resides somewhere between the liberal and realist perspectives and questions realism's overemphasis on conflict between two countries and market's lack of appreciation for institutions' ability to promote trade (R. Singh 2010). The basis for the optimism is

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that industrialisation of the welfare states of Pakistan and India has shifted the priorities towards economic growth and social security, away from power & prestige. Agencies such as the South Asian Association for Regional Cooperation (SAARC) (the only major regional institution in which both Pakistan and India are members) are treated as the appropriate channels to realise welfare goals beyond their borders[i]. As institutionalists see it, in a world grappling with multiple issues that are imperfectly linked, coalitions are formed transnationally and trans-governmentally to pursue specific common interests (The International Bank for Reconstruction and Development 2008).

Institutions that are bound by a set of regulations, norms or common understanding of the benefits coordinated development of energy infrastructure are seen to be the key drivers of cross border energy initiatives. Overall institutions are seen as enabling mechanisms for energy-diplomacy between nations with competing and common interests. The key premise in these narratives is that “structure influences behaviour”. What this implies is that nations can behave remarkably similarly when embedded in the same structure of institutional relationships. SAARC has leveraged this idea to promote concepts such as the “energy ring” to secure energy sources from energy surplus regions of the Persian Gulf (for oil & gas), Central Asia and the Far East (for hydro power) that surround South Asian nations[ii]. However, these have not made progress despite over a decade of concerted efforts of SAARC (Kapila 2016).

The overall supposition of the institutionalist perspective is that the institutions will evolve and mediate the trade-off between economic, social and security goals of South Asian nations and facilitate regional trade and cooperation (Grieco 1988).

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THE REALIST NARRATIVE

The counter narrative that highlights a less optimistic view on the bilateral relationship between Pakistan and India emphasizes on relative gains as opposed to absolute gains as highlighted in the trade narrative. Under this realist narrative, trade (of energy and other commodities) between India and Pakistan would result in “dependence” between the countries that would in turn impose security costs on both countries. The two countries therefore choose to bear the cost of energy (or other) trade non-cooperation (Mishra and Roche 2019). This relatively pessimistic prognosis offers the most commonly cited explanation for the lack of progress on joint efforts to secure and share energy resources in South Asia. The history of hostility between Pakistan & India that has held up progress in coordinated efforts towards energy security through agencies such as SAARC can be explained through the relative gains calculations of these countries (Mondal 2016). India’s insistence on including the principle of unanimity in decision-making in Article X of the SAARC charter is often read as a move that eliminates the possibility of smaller South Asian nations vetoing India’s position (Huda and McDonald 2016). The lack of progress on the Iran-Pakistan-India (IPI) and the Turkmenistan-Afghanistan-Pakistan-India (TAPI) natural gas pipelines is also attributed to India’s concern over the proposed pipelines passing through Pakistan (Trivedi 2008). Pakistan and India prefer to bear the cost of losing long term economic gains of securing affordable supplies of natural gas to limit short-term security compromises of trans-border natural gas pipelines. Under the realist lens, Pakistan and India are said to be seeking relative gains or positional goods that foster competition and conflict rather than cooperation even when they share common interests (Grieco 1988). This approach reflected in security narratives frame the problem as one of geo-political competition (Lall 2008).

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RESHAPING THE NARRATIVE

Reports from development funding agencies that dominate the body of literature on energy cooperation have routinely featured economic benefits of regional and bilateral trade in electricity under the concept of regional and bilateral cooperation. However, trade does not necessarily require cooperation.

Co-operative agreements by China and India with oil producers in West Asia (Middle East) have been criticised by western countries as these agreements transcend trade relationships to hedge against market related supply risks[iii]. Some western observers have even termed this “co-operation” as an “unwelcome nexus” between oil producing and consuming countries that do not necessarily respect the international oil order underwritten by market principle (Mohan and Powell 2015). Cooperation is thus seen as a form of relationship that can undermine market (commercial) relationships. Trade relies on the objective forces of the market (supply & demand) and mediates trust through standardised contracts that follow accepted commercial norms to facilitate exchange of goods and services. In other words, market relationships can materialise automatically. Cross-border trade may require specialised clauses in the agreements or contracts to protect sovereign interests but these are common in the commercial realm. In contrast, regional cooperation would imply accommodation of preferences and concerns that go beyond basic commercial norms and the forces of supply and demand.

Regional integration, a term that has its origin in the integration of the European nations suggests deeper structural and political integration than what is implied by the term regional cooperation (Thomas 1996). For example the definition of regional integration by Karl Deutsch states that it is “the attainment within a territory, of a sense of community and of institutions and practices strong enough and widespread enough to assure, for a long time, dependable expectation of peaceful change among its population” (Finn 2008). Though this vision is not part of Pakistan and India’s goals, the term “integration” is often used interchangeably with regional “connectivity” in the literature to describe cross border energy infrastructure such as pipelines. Integration of infrastructure is not integration of policies of the two countries. There are subtle differences in how the terms are used and how they are

interpreted. Reshaping the narrative on energy trade that allows for greater clarity on what is intended is likely to lead to greater interaction among South Asian neighbours. Subsequent sections outline issues that can facilitate reshaping of the narrative.

STRUCTURAL AND MATERIAL SHIFTS

Given the overwhelming size of India that dominates economic output and energy consumption in the South Asian region, benefits for India from trade with any country in the South Asian region is much smaller than perceived. India accounts 75 per cent of the population 64 per cent of the land mass 79 per cent of the combined Gross Domestic product (GDP) of \$ 8.3 trillion^[iv] and 84 percent of primary energy consumption in the region^[v]. India's disproportionate size not only limits the extent of energy imports to India from other countries in the region but also limits the distribution of costs and benefits of trade evenly. Though Pakistan is the second largest economy in South Asia after India, Pakistan's total electricity generation was about 9 percent of India's electricity generation in 2018 (BP 2019). In the current environment India is a net exporter rather than importer of electricity (PTI 2017). The quantity of India's electricity exports to Nepal and Bangladesh in 2018 exceeded the quantity of India's electricity imports from Bhutan.

India currently has surplus power generation capacity that can meet, in theory, all the electricity demand from all its South Asian neighbours. ^[vi] Electricity from India would be cheaper than oil or imported gas-based electricity generated in Pakistan. Assuming that Pakistan has surplus electricity generation capacity^[vii], export of 10 percent of Pakistan's current electricity generation to India will meet less than one percent of India's demand. The economic gains in terms of revenue earned will however be significant for Pakistan. Pakistan will make

"Reshaping the narrative on energy trade that allows for greater clarity on what is intended is likely to lead to greater interaction among South Asian neighbours."

significant economic gains irrespective of whether it imports or exports electricity. For India, the relative size of imports or export of electricity will not make a significant material or economic difference. However, there would be soft gains as India will gain prestige in the geo-political arena. Trade in electricity may even lead to significant secondary economic gains such as attracting investment in cross border energy infrastructure.

VECTORS FOR EXTERNAL PROJECTION

India's vectors for external projection such as resilience (ability to adapt to change in the national, regional and global energy markets), strategic independence (low dependence on imports of energy resources and energy technologies) and identity (as a dependable partner in addressing global challenges) are negatively impacted by the lack of mature and liquid energy trade among South Asian countries particularly with Pakistan which is the second largest economy in the region.

India's resilience in the context of energy is low on account of a number of domestic rigidities. These include, but not limited to single fuel dominance, state involvement in the energy sector and regulated and cross subsidized energy prices on account of affordability. Inadequate energy trade with India's neighbours further reduces India's resilience as India is not able to leverage relative competitive advantages of its neighbours at times of unanticipated changes in the energy markets. For example, mature energy trade with Pakistan will enable India to balance short term imbalances in the energy market such as an unanticipated reduction in coal availability on account of monsoon rains or shortage of LPG on account of push to increase LPG access prior to elections. The fragmentation of energy markets in general and electricity markets in particular increases overall costs of investment in energy infrastructure

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and also increases the cost of imports. The “Asian premium” on oil price is the result of such market fragmentation. This is an avoidable cost. India’s dependence on oil and gas imports and some energy technologies (primarily nuclear and solar) reduces strategic independence as it often involves geo-political compromises. The existence of a liquid market for energy fuels among Asian countries will reduce this premium.

In international bargaining environments such as the World Trade Organisation (WTO) and Climate Change negotiating platforms, India is seeking the identity of a responsible partner and deal maker in line with its status as a global economic and political power. Forging trade relationships with India’s South Asian close neighbours will add credibility to India’s identity as a dependable partner.

NEW VECTORS FOR EXTERNAL PROJECTION

The world is shifting towards low carbon renewable sources such as solar and wind to meet its energy needs. This necessarily means a change in the content and form of its risk profile. The strategic risk in the fossil fuel era was resource scarcity particularly in the context of oil. This led to competition for oil as each nation sought to secure access to oil. In the future low carbon renewable era, the key risk will be intermittency in electricity generation. Addressing intermittency necessarily means cooperation so that the differences in the electricity demand and supply profiles of each of India’s neighbours can be leveraged to compensate for interruptions in electricity generation from the sun and the wind. A grid that is connected across South Asian countries will provide larger balancing area for intermittency that will lower risk. In the low carbon era control of the electric grid will matter as much as control of the oil supply lanes and gas pipelines mattered in the fossil fuel era. India will have greater power in this regard as it controls the largest grid in the

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region. India can thus bargain trade relationships from a position of strength as the biggest consumer and net exporter of electricity with the largest grid.

CONCLUSION

Narratives on bi-lateral energy trade between Pakistan and India often conflate the relatively dynamic concept of the market and its preferences with the relatively static concept of sovereign nations and their preferences which has distorted observations and conclusions on the issue. Terms such as “trade”, “cooperation”, “connectivity” and “integration” are used interchangeably in these narratives that has led to some level of theoretical anarchy and contributed to the pessimism over prospects energy trade.

There is a need to reshape the narrative to clarify and simplify the case for energy trade between Pakistan and India. India’s vectors for external projection such as resilience, strategic independence and identity are negatively impacted by inadequate and immature energy trade relationships among South Asian countries particularly with Pakistan. Greater energy trade between Pakistan and India will not only enrich India’s strategic vectors and geo-political status but also motivate greater trade with India’s other South Asian neighbours.

The world is shifting towards low carbon renewable sources such as solar and wind to meet its energy needs. This necessarily means a change in the content and form of its risk profile. In the low carbon renewable era, the key risk is intermittency in energy generation which can be better addressed with healthy trade relationships among neighbouring countries.

"India’s vectors for external projection such as resilience, strategic independence and identity are negatively impacted by inadequate and immature energy trade relationships among South Asian countries particularly with Pakistan."

- [i] SAARC website <http://www.saarc-sec.org/SAARC-Charter/5/> accessed 18 December 2019
- [ii] http://saarc-sec.org/areaofcooperation/cat-detail.php?cat_id=55 accessed on 14 December 2019
- [iii] While this perspective is relevant to the context of crude oil that is traded in a liquid global market it is less relevant to the context of trade in electricity or even natural gas that are traded more locally. This is partly due to the characteristics of electricity that makes storage difficult or expensive which means that its value is not homogenous across space and time unlike crude oil
- [iv] The value is in international dollars measured in terms of purchasing power parity [PPP]
- [v] Data from the world bank data base available at <http://data.worldbank.org/?locations=8S-1W> accessed 14 December 2019
- [vi] This is in terms of market demand and not development demand. Many households in India are connected to the electricity grid but they are not supplied with electricity as it is not remunerative for electricity distribution companies (discoms) to supply electricity to these households as quantity of consumption is small and revenue recovered does not cover cost of supply.
- [vii] This is far from reality today as Pakistan has inadequate electricity generation capacity to meet domestic demand.

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INDIA – PAKISTAN ELECTRICITY INTERCONNECTION PROJECT: OPPORTUNITIES AND APPROACHES^[i]

MAHENDRA P. LAMA

Energy Security has been a critical issue and a dominant driver of regional geopolitics (Lama 2007) and development dynamics in India-Pakistan sub-region. This emerges against the four very challenging backdrops:

1) Energy demand is steadily growing and protracted supply deficit could even lead to instability and conflict. [ii]

2) Disruption of power and other energy supplies have affected both human (food, livelihood, employment and economy) and national security. It has adversely affected their production activities, social development and investment climate. There is a realisation that the political costs of these power shortages and outages are rather significant [iii];

3) Massive reforms in electricity, gas, petroleum and coal sectors have been taking place in the last two decades. For decades together power generation, transmission and distribution remained an exclusive state monopoly.[iv] Unbundled functions of various utilities have led to huge expansion of generation, transmission and distribution expansions. And
4) Rich concentration of energy resources in this sub-region could in fact be a major instrument of development. The reemphasis on renewable is going to bring about substantive change in the composition of energy production. The newer opportunities such as Central Asia South Asia

"A World Bank Study states that "trust building around electricity trading is possible even between countries with a history of conflict."

(CASA) and China-Pakistan Economic Corridor (CPEC) projects, India's foray in electricity interconnections and trading with other countries including Bangladesh (first national grid to national grid interconnection in 2014), Bhutan and Nepal, and the possibility of similar actions with Pakistan and Afghanistan have enhanced prospects for a regional grid.

By now the advantages of a range of varieties emanating from cross border exchanges of energy are very well established as could be seen in many other regional groupings like that of Nord Pool in Northern European encompassing Norway, Sweden, Finland and Denmark and South African Power Pool (SAPP) that includes South Africa, Lesotho, Mozambique, Namibia, Malawi, Zimbabwe and Zambia. In the context of India and Pakistan, it will act as the single most effective confidence building measure (CBM) through the participation of multiple stakeholders and substantially promote market integration in energy related goods and services. A World Bank Study states that "trust building around electricity trading is possible even between countries with a history of conflict. In several of the case studies there is a history of regional conflict. The nature of the trouble was not necessarily at the border but sometimes internal conflict (and hence a potential source of supply risk for international partners). In the case of SAPP and ECSEE there have been cross-border conflicts in the past. Broader free trade arrangements among countries also can support the establishment of the trust required to expand regional power cooperation." (World Bank 2016)

REINFORCING FACTORS

There are six reinforcing factors that are bound to promote energy exchanges between India and Pakistan and other SAARC countries in the near future. (Lama 2014)

I. Huge power crisis is leading to long hours of load shedding in many South Asian countries. The energy import and deficit costs have been rather disturbing. There has been tremendous public pressure on the respective governments to act upon to improve the situation. Most people are willing to pay for electricity.

II. There are increasing realizations among the leadership of South Asian countries to expedite the process of energy exchange as indicated by declarations in various SAARC Summits. It started with the Islamabad Declaration of 2004 where the concept of 'Energy Ring' was discussed. SAARC Framework Agreement for Energy Cooperation was signed at the Kathmandu Summit in 2014. Article 12 - 13 of the framework agreement provides for non-discriminatory transmission access for cross-border electricity trading. Following this, Nepal and India signed an Agreement on Electric Power Trade, Cross-border Transmission Interconnection and Grid Connectivity in 2014 and also set up a Joint Working Group for planning and identification of cross-border interconnection. India's Ministry of Power has for the first-time floated Guidelines for Import / Export (Cross Border) of Electricity- in December 2018.

III. There are various levels of sensitisations and preparations for energy cooperation that have been undertaken in the past decade or so which have started bearing fruits now. [v]

IV. Massive power sector reforms have taken place in the region. In India, the Electricity Act 2003 has been designed to develop power markets through increased competition and more players and protection of consumer interests. It recognizes trading as a distinct activity and has made adequate and progressive provisions governing open access both in terms of transmission networks (inter-state and intra-state) and distribution networks. In Pakistan, a well laid out commercial framework for Independent Power Producers (IPPs) and fiscal concessions exists which includes 100% foreign ownership, maximum 80% equity contribution and concessionary import duty on plant and equipment. A regulatory body — the National Electric Power Regulatory Authority (NEPRA) — was introduced to act as regulator of generation, transmission

"There are increasing realizations among the leadership of South Asian countries to expedite the process of energy exchange as indicated by declarations in various SAARC Summits."

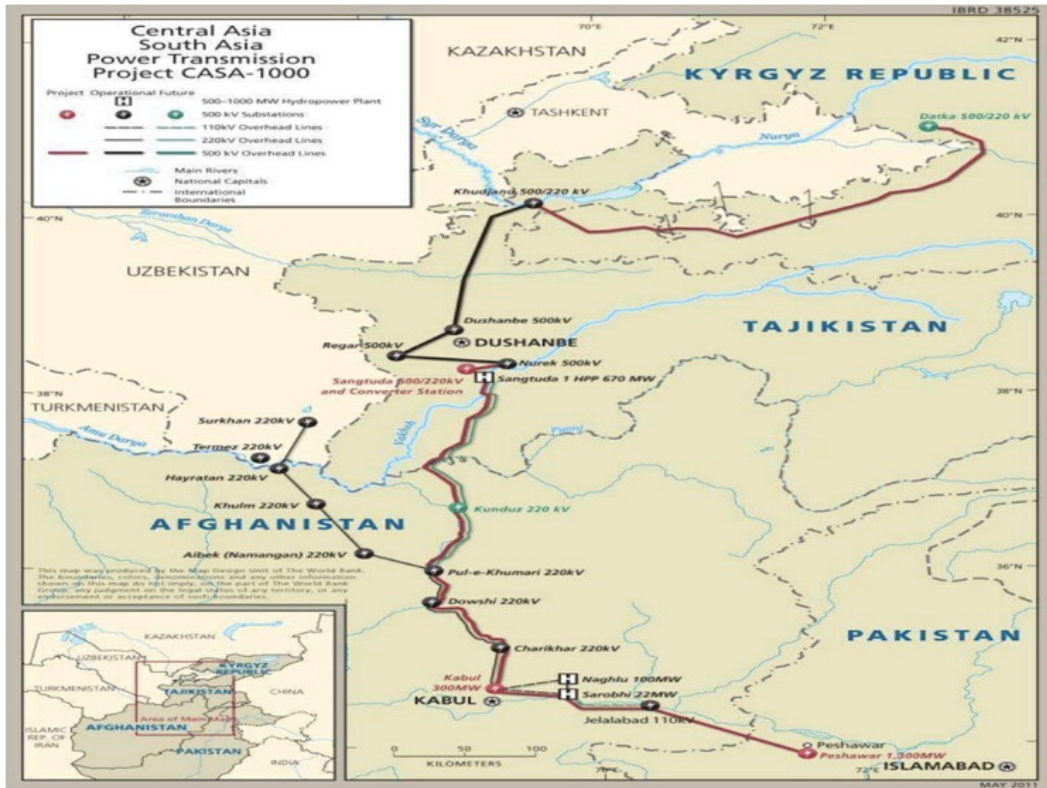
and distribution of electricity.

V. Traditional debate whether surplus power generation leads to cross border exchanges or pre - established transmission inter connection facilitates cross border flows has now been examined from various perspectives. Various experiment based conclusions substantiate the fact that laying of transmission interconnections early could in fact open the possibilities and scope for power flows in all directions within and outside the country. A huge and significant infrastructure has been developed in the energy sector in both these countries. India has two comprehensive varieties of exchanges viz. inter-state and Inter-regional. In Pakistan, National Transmission and Dispatch Company (NTDC) transmission network includes 5,197 km long transmission lines operating at 500 kV level and 9,814 km long 220 kV lines.

VI. Financial institutions, including multilateral and bilateral agencies, are keen to invest. China and Japan are emerging as new actors in the harnessing of trans-border energy in the region.

VII. Extra-regional linkages are fast emerging. For instance, under the CASA 1000 project, three to six terawatt hours of hydroelectricity is likely to be transferred from Kyrgyz Republic and Tajikistan to South Asia .[vi]

"Laying of transmission interconnections early could in fact open the possibilities and scope for power flows in all directions within and outside the country. A huge and significant infrastructure has been developed in the energy sector in both these countries."



Map 1: CASA Project

Source: www.casa-1000.org

There are quite revealing variations in the installed capacities of power utilities in India and Pakistan. These variations also reflect the potentialities as based on their natural endowments. Thermal power has gradually dominated the installed capacities in India (62.8 in January 2020) and Pakistan (62 % in 2019-20). Share of hydro sources has gone down very steadily in both India and Pakistan.[vii]

The latest projection by NITI Aayog clearly shows that the demand for electricity itself will grow almost three fold from 762 TWh in 2012 to 2239 TWh by 2030 wherein the highest increase will be in residential and industrial sectors (Niti Aayog 2015). Coal with 52 percent share (2030) will continue to be the dominant source in the primary energy mix, followed by oil at 29 percent and gas at 8 percent. India's levels of import dependence of fossil fuels will rise from a level of 32 % in 2012 to 45 % of the primary energy supply in 2030 in which dependence on oil imports at over 80 percent will be the highest followed by over 59 percent import

dependence on coal and almost 40 percent dependence on gas imports. (NITI Aayog 2015)

In Pakistan three projections made by different institutions are available. The Working Group for Energy Sector under Planning Commission developed two power demand scenarios based on GDP growth projections. One forecast was labelled as normal growth in consumption whereas the other one was a high demand scenario. WAPDA provided load forecast based on 5%, 6%, 7% GDP and also prepared a forecast for energy generation for higher growth scenario for the year 1997-98 to 2017-18. Energy Wing of Planning & Development Division prepared two scenarios of power demand forecasts in its "Ten Year Perspective Development Plants 2001-11" and "Physical Targets up to 2025". These forecasts project electricity demand of 38811 MW in 2020 and 54434 MW in 2025, Another study showed that electricity demand is anticipated to increase with approximately 260 % for next 20 years from existing 112 TWh in 2011 to 295 TWh in 2030 (Perwez & Ahmed 2014).

To overcome power deficit Government of Pakistan has announced a power policy whose thrust is to encourage private investment in the power sector with the aim to increase the installed capacity to 48,284 MW in 2025. However, a rising gap is likely to emerge between installed capacity and peak demand from 1194 MW in 2002 to 10174 MW in 2025. Peak energy shortage will remain. Because of the high cost of fossil fuel, fired power generation may not be feasible as thermal plants are old and inefficient. Hence, interconnection is quite crucial.

INDIA-PAKISTAN POWER EXCHANGE - 1998

India's proposed power import from Pakistan in 1998 was an impressive

"In Pakistan, because of the high cost of fossil fuel, fired power generation may not be feasible as thermal plants are old and inefficient. Hence, interconnection is quite crucial."

step as Pakistan offered sale of surplus power to India. There had been intensive negotiations between Power Grid Corporation of India Limited (PGCIL) and Water and Power Development Authority (WAPDA) led various independent power producers (IPPs) in Pakistan. Feasibility of export of 300-1000 MW power to India was studied and even the delivery points were identified and number of options were explored. System studies were also carried out under various loading conditions, technical and commercial aspects were considered, and a draft of Interconnection and Operating framework was also produced. The Agreement was discussed on 1 February 1999 in which tariff stood out to be the major stumbling block wherein WAPDA offered US 7.2 cents/KWH while Indian side offered US 2.25 cents. The negotiations broke off mostly on this very critical issue.

NEWER INITIATIVES

There are several possibilities of effective inter connection between India and Pakistan. The inter-governmental level talks were renewed around 2014. This time however, it was for the supply of electricity to Pakistan to the extent of 1000 MW power (500 MW in 1st Phase and total 1000 MW in 2nd Phase). Like in the past the Memorandum of Understanding was proposed between the Power Ministries of these two governments in March 2014. This also includes a proposal for formation of Joint Technical Committee for feasibility study of transmission line. This Committee would make feasibility study for HVDC line (for transfer of 500 MW) between Amritsar and Lahore (around 40 KMs), which will take around 3 years and Rs 400 Cr investment which is likely to be financed by the World Bank and USAID (Mishra 2015). Indian private investors including the Adani Group have also started showing deeper interest (Hindustan Times 2015).

"In the short and medium term India could be a net supplier of power to Pakistan to meet both seasonal variation and other deficits, in the long term Pakistan could be a net exporter both because of the realisation of the CASA project, cross border gas projects like IPI (Iran-Pakistan) gas pipelines and TAPI (Turkmenistan, Afghanistan, Pakistan and India) pipelines."

MODELS OF INTER-CONNECTIONS AND COST AND BENEFITS

India-Pakistan power trading could happen in all three - short term, medium term and long term. Though in the short and medium term India could be a net supplier of power to Pakistan to meet both seasonal variation and other deficits, in the long term Pakistan could be a net exporter both because of the realisation of the CASA project, cross border gas projects like IPI (Iran-Pakistan) gas pipelines and TAPI (Turkmenistan, Afghanistan, Pakistan and India) pipelines , commissioning of various projects both by the Government of Pakistan and the proposed projects under the CPEC.[viii] In fact, the experience in the past[ix] very clearly indicates that growing organically and starting with smaller quantum of exchange, short distance interconnection, involving less number of parties and minimum formal arrangements have led to the most integrated and effective markets. The demonstration effect has been prolific while starting small.

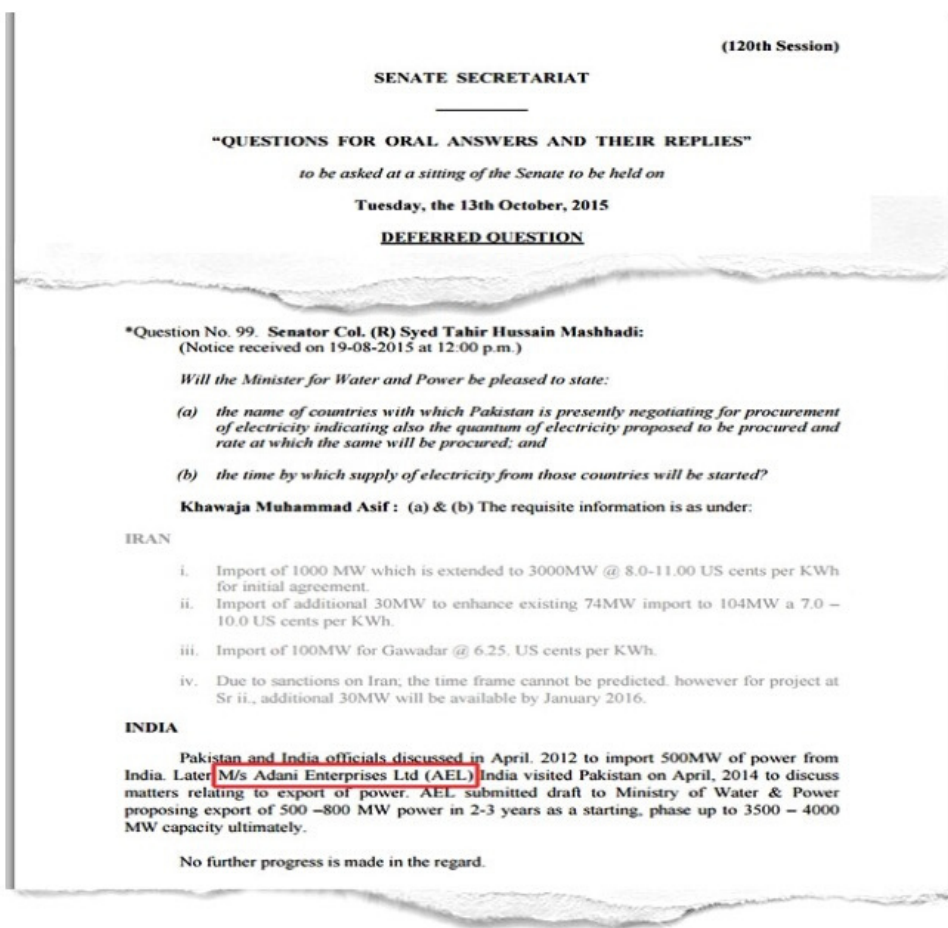


Figure 1 : Document from the Senate Secretariat

A comprehensive study (Lama and Rais 2015) conducted by professionals from India and Pakistan for USAID in 2005 on the “Assessment of Economic and Social Benefits of Power Trade Between India and Pakistan” revealed a huge chain of benefits cutting across various sectors and issues. If Pakistan were to sell 3,000 MW of power to India it concluded that “ it could earn an annual net profit of US\$ 160 million at a selling price of Indian Rs 2.86/unit (after deducting fixed and transmission costs) and gain an additional US\$ 300 million through a parallel 10% decrease in defence expenditure, due to improved relations with India. Thus, the direct savings to Pakistan would be on the order of US\$ 460 million a year. India also would benefit from gaining access to lower cost power and improved system reliability.”

MODEL I : PTC PERSPECTIVE

An estimate given by the Power Trading Company of India on the expected annual savings to Pakistan from import of 500 MW power from India is given below. (Table 2)

Table 1: Expected Annual Savings to Pakistan from Import of 500 MW power from India

Approx. prevailing rate of power in Pakistan (in INR)	INR 7.00/ KWh
Approx. rate of power supply through Diesel	INR 18.00/ KWh
Approx. rate of power supply through Diesel	INR 18.00/ KWh
Approx. rate of supply of power from India to Pakistan	INR 5.50/ KWh
Savings to Pakistan compared to prevailing supply rate	INR 1.50/ KWh
Net Savings (500 MW*85%PLF*1 year* 1.50)	INR 558 crores/year
Savings to Pakistan compared to supply through Diesel	INR 12.50/ KWh
Net Savings (500 MW*85%PLF*1 year* 12.50)	INR 4653 crore/year

Source : Power Trading Company of India

The initial 100-150 MW power transfer could be done in Radial Mode, which can then be updated to HVDC link for 500 MW or more. The interconnections could be done between Lahore-Amritsar and Mundra-Karachi. Like between Nepal and India to start with the mode of transmission link could be Public Private Partnership (PPP) mode.

There are possibilities that the national grid of Pakistan could be connected to the generating site or through a pool of generators in India. There is also a possibility that at a more mature stage, connections could be made in Nepal and Bhutan if there are other agreements where India would provide wheeling facility. Agencies have to be identified for the last mile connectivity on both sides of the border.

MODEL II - WORLD BANK STUDY [X]

The World Bank estimated that to facilitate cross-border electricity trade, a net increase of 95 GW in cross-border transmission capacity would be required. (Table 2) Though Nepal-India expansion will be the highest constituting almost 50 percent of the total expansion, India-Pakistan inter-connection will also be significant both in the west and the north. A recent World Bank study found that “in the least-cost outcome, the India North grid exports a significant amount of power to Pakistan during a part of the year, but at other times, India West grid imports a significant amount of power from Pakistan. This illustrates how power flows in an interconnected system will vary with prevailing cost and demand conditions among countries and during the year.” (World Bank 2016)

The study concludes that in case of regional power cooperation and trade, both Pakistan and India export to each other at various times during the year. It states that under such a situation, changes in cumulative electricity flow relative to baseline, 2015-2040 (TWh), Pakistan would export 300 TWh (282 to North India) and import 397 TWh from India. For Pakistan and India the percentages of this aggregate power flow relative to domestic consumption will be 13 and 12 percent respectively (as against 1677 % of Bhutan and 756 % of Nepal) which broadly indicates dependence of these countries on power trade. Besides both India and Pakistan will gain tremendously in terms of cost saving,

Table 2: Potential Expansion of Cross-Border Transmission Interconnections in South Asia With Regional Electricity Cooperation and Trade Capacity in 2040 (GW)

Cross-Border Connection	Baseline	Regional Grid	Change from Baseline
Nepal - India	1.1	51.4	50.3
Nepal - India North	0.1	48.6	48.5
Pakistan - India	0	14.9	14.9
Pakistan - India North	0	10.1	10.1
Pakistan - India West	0	4.8	4.8
Total Interconnection (% of total regional grid capacity)	11.7 (1.1%)	106.8 (9.5%)	95.1 (8.4%)

Source : World Bank, The Benefits of Expanding Cross-Border Electricity Cooperation and Trade in South Asia, Final Report, World Bank Project Number P143029, 2016

mainly through the savings in fuel and other operating costs. In fact India would see the highest reduction in its power generation costs, followed by Pakistan and Bangladesh.

Another World Bank funded pre-feasibility study found that for import of 500 MW power by Pakistan from India there could be the following four transmission interconnections in different locations. These could be conducted at a cost of roughly US\$ 200 million.

1. 400/220 kV HVDC Back-to-Back Converter Station in Pakistan
2. 400 kV D/C T/Line (approx. 26 km) from Balachak to Pak-India Border.
3. 400 kV D/C T/Line (approx. 10 km) from Converter Station to Pak-India Border
4. 220 kV D/C T/Line from Ghazi Road to Converter Station

Pakistan could purchase power from Indian suppliers through their power exchanges under a competitive trading of electric power regime.

MODEL III- ADB STUDY

ADB CROSS BORDER TRANS-BORDER INTERCONNECTION STUDY

A study by the Asian Development Bank (2015) dealt with the costs and benefits of proposed India-Pakistan 400 kilovolt cross border transmission interconnection and why it is required to share large quantities of renewable energy. (Wijayatunga et al 2015)[xi]. While examining both the economic feasibility and technical feasibility, it assessed how transmission interconnection could trigger generation in hydel power leading to significant drop in fossil fuel use, power shortages and Carbon Dioxide (CO₂) emissions in the region.

In case of India-Pakistan, the cost of short term 250 MW transfer at 220 kV (45 km) and medium/long term 400 kV (high voltage alternating current (HVAC) or HVDC line) transfer of 500 MW, will be a maximum of USD 50 million (including costs of upgrading the internal transmission systems on both sides), and USD 150 million respectively. The annualized cost will be USD 6 million and USD 18 million respectively. The 220 kV transfer[xii] will generate annual benefit[xiii] of USD 335 million (including USD 122 million in fuel cost savings and the 400 kV[xiv] USD 491 million (including USD 163 million in fuel cost savings, USE reduction related savings of USD 302 million and Capacity deferral related savings of USD 26 million). Total benefit for a 500 MW transfer rises to USD 491 million for this scenario and the level of the total benefit comprises of fuel cost savings of USD 163 million. Annual combined benefit of two projects is USD 1,250 million for Base Case including USD 906 in USE cost reduction and USD 306 million in fuel cost savings.

MODEL IV- JNU-PIDE PERSPECTIVE [XV]

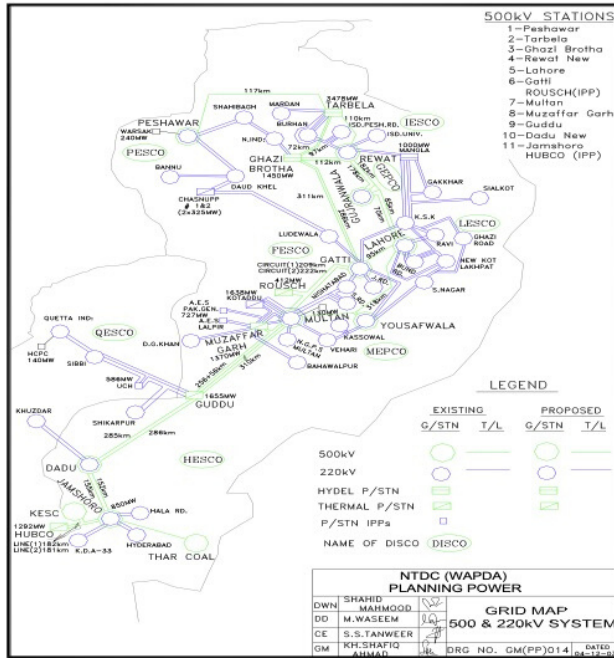
With the consumption of 62 percent of the total generated electricity, the neighbouring Punjab in Pakistan remains the most power hungry province [xvi]. It is planned that each country will construct and maintain a double circuit twin- bundled 220 KV transmission from the designated substations viz., Dina Nath in Pakistan and Patti in India. National Power Grid Corporation of India may play an active role in concretising the Indian side of the transmission of the power purchased from Pakistan. There is a complete network of transmission lines and grids on the

Pakistani side along the north-western border of Indian Punjab [xvii]. The tariff difference is increasingly becoming stark thereby making import of power from India and other countries rather attractive for Pakistan.

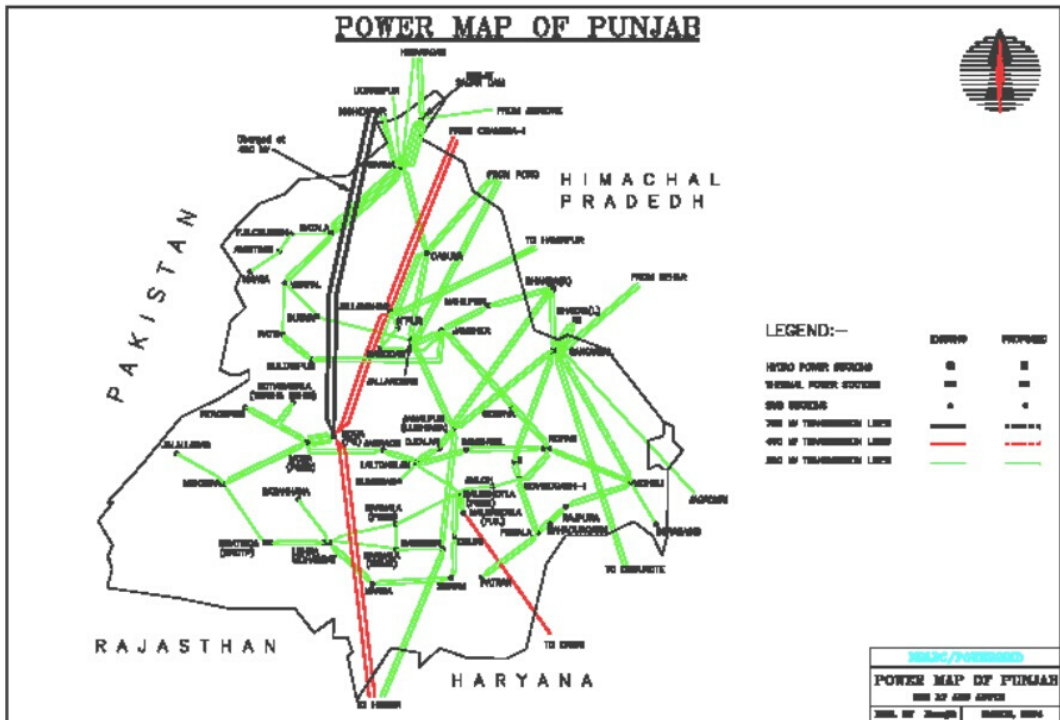
In Pakistan, the K. Noor, SEPCO and Japan power houses and the adjacent grids in the Punjab province of Pakistan near the border of Indian Punjab are the potential locations which can be used for onward transmission to the Indian distribution lines. The nearest grid on the Indian side of Punjab is Patti and is located close to Lahore Ring. There are various possibilities for transmission through the grids in Pakistan between New Kot Lakhpat and Raiwand to Patti in India or vice versa. Laying a 50 km high voltage double circuit (HVDC) transmission line to evacuate power from the Dina Nath sub-station near Lahore to the Patti sub-station in Indian Punjab or vice versa could be done as test case. If this happens, it is likely to bring about a major transformation in the political economy of regional cooperation in South Asia. Map No. 2 gives us some idea about how proximate could be the power exchange between Indian state of Punjab and Pakistani province of Punjab.

The National Grid Company plc (NGC) and the NTDC in Pakistan can play a major role in concretizing the India-Pakistan transmission. Pakistan already has 500 KV primary transmission system extending from Jamshoro in the south to Tarbela and Peshawar in the north [xviii] All these lines run close to the adjoining borders of India and may not require complex transmission extensions to the Indian borders. This can be seen from the power transmission Map no 3 of Punjab in India as given below. "There is a complete network on our side and of course on their (India) side as well. What we need are the connections, which would take only a couple of weeks" [xix].

"There is a complete network of transmission lines and grids on the Pakistani side along the north-western border of Indian Punjab . The tariff difference is increasingly becoming stark thereby making import of power from India and other countries rather attractive for Pakistan."



Map 2 – Proximity of Power Exchange between Indian State of Punjab and Pakistani Province of Punjab.



Map 3 : Power Map of Punjab

The possibility of power purchase has opened new vistas of cooperation. Cross border power trade will lead to: 1. Effective utilization of natural resources; 2. Increase in reliability of power supply; 3. Economy in operation and mutual support during contingencies; 4. Bring about large scale transformation in the sectors contributing to economic growth; and 5. Will act as the single most effective confidence building measure through the participation of stakeholders.

However, the key issues to be settled before the cross border flow is concretized are the cost of transmission line and its sharing mechanism; the determination of power tariff; the payment mechanism, and most importantly the power supply sustainability and its geo-political immunization. It is very crucial to maintain a fair balance in the energy security equation in order to avert the risk of 'trade and fade'. A set of proactive actions are urgently required.

I. Provide the policy and institutional framework for increasing cooperation in power trade. This would mean inter-Governmental Agreement on Bilateral / Regional Power Trade; Regional Power Trade Coordination Committee; Setting up of Focal Groups to work on options for the Future Power Market and Regional Power Trade Operating Agreement and Energy Sector Strategy.

II. Develop grid interconnection infrastructure and grid code through a building block approach allowing cross-border dispatch of power. This should include essential physical power interconnection; harmonization of transmission planning, design, and operational practices (performance standards) and power infrastructure database design and implementation.

"The key issues to be settled before the cross border flow is concretized are the cost of transmission line and its sharing mechanism; the determination of power tariff; the payment mechanism, and most importantly the power supply sustainability and its geo-political immunization."

III. Initiate cross border investment with the target of project based approach. This would include establishing a sub-regional infrastructure investment fund under the guarantee cover or funding from multilateral institutions such as World Bank or ADB.

IV. Tariff Structure for Regional/bilateral Electricity Trade Tariff is going to be critical in various models of Power Exchange between India and Pakistan and between South Asia and Central Asia and hence a comprehensive discussion and long term policy outlines are to be put in place.

"Developing Grid Interconnections and initiating cross border investments are two proactive steps which are urgently needed."

[i] Prof Kaiser Bengali, Economic Adviser to the Government of Baluchistan, Pakistan provided key inputs for this article.

[ii] "A suffocating heat wave across Pakistan has killed over 700 in the past week, exposing a severe power crisis and threatening to usher in a new period of political unrest. Temperatures have hit 45 degrees Celsius in recent days, prompting Prime Minister Nawaz Sharif to declare a national emergency this week. The blistering heat is exacerbated by chronic electricity shortages, forcing water pumping stations - the chief source of potable water - to come to a standstill, with residents also unable to seek relief from fans or air-conditioners. That's created a deadly health risk for Muslims fasting during the annual Ramadan holiday that began last week.... But, as the heat wave reveals the extent of slow progress, protesters have taken to the streets. Citizens clashed with police forces this week after setting fire to offices of the Water and Power Development Authority in north western and southwestern towns, according to local news media." Deadly heat exposes Pakistan's power problems, Nyshka Chandran | @nyshkac Wednesday, 24 Jun 2015 | 8:12 PM ETCNBC.com

[iii] A study (1992) estimated the cost of power shortages to India and Pakistan's industrial sectors to be 1.5% and 1.8% of GDP, respectively. It is estimated that the short-fall of every unit of required electricity, from any cause, results in an economic loss of five to ten times the cost of the electrical energy generated, due to wastage in labour, material, and loss of production. H. Khatib and M. Munasinghe, "Electricity, the Environment and Sustainable World Development", World Energy Council, 15th Congress, Madrid, September 1992. "Electricity deficits can exceed up to one-third of peak demand in Pakistan and cost more than 2 percent of gross domestic product annually. Multiple factors like a physical shortfall, the financial inability of utilities to cover the cost of increasing supply and poor governance have contributed to the crisis". United States Institute of peace as quoted in Deadly heat exposes Pakistan's power problems Nyshka Chandran | @nyshkac Wednesday, 24 Jun 2015 | 8:12 PM ETCNBC.com

[iv] Respective state, and federal governments have owned, operated and regulated the power entities.

[v] Including by South Asia Network of Economic Research Institutes (SANEI), Coalition for Action on South Asian Cooperation (CASAC), South Asian Centre of Policy Studies (SACEP), ICRIER, Bangladesh Unnayan Parishad (Dhaka), Centre for Policy Dialogue (Dhaka), Institute for Integrated Development Studies (Kathmandu), Centre for Policy Research (New Delhi) and Tata Energy Research Institute (New Delhi) and premier universities like Jawaharlal Nehru University (New Delhi), Sikkim University, BUET (Dhaka), Sustainable Development Policy Institute (SDPI), Quad-i-Azam University (Islamabad) and Lahore University of Management Sciences; University of Colombo (Sri Lanka).

[vi] The Central Asia South Asia Regional Energy Market (CASAREM) is designed to supply 1,000 MW power from Kyrgyzstan and Tajikistan through Afghanistan to Pakistan. This is US \$ 1.17 billion project is supported by World Bank, Islamic D

Development Bank, European Investment Bank and USAID and is likely to be completed by 2020. If successful, this could trigger a chain of interconnections between Central Asia and South Asia including US\$ 1 billion Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan Interconnection funded by Asian development Bank. Presentation made by Alias Wardak in South Asia Economic Summit, Dhaka, October 2016. India has already laid a 220 KV transmission line from Pul-e-Khumri to Kabul.

[vii] For example, in India, hydro sources constituted as high as 43 percent of the total installed capacity in 1970-71 which steadily went down to present level of 25 percent. This is despite the fact that the installed capacity of hydel power recorded a 44 - fold increase from a mere 575 MW in 1951 to almost 25407 MW today. In Pakistan also the share of hydel power in the total installed capacity has gone down from 44 percent in 1980-81 to 30 percent in 1999. In Pakistan, the earlier installed capacity of 15996 in 1997 was shared by WAPDA (72 % including Kot Addu), private producers (17 %), KESC (9.5 %) and Karachi Nuclear Power Plant (0.85 %). Government of Pakistan, Economic Survey 1997-98, p 113 and Statistical Abstract India, 1997, Central Statistical Organisation, Department of Statistics, Ministry of Planning and Programme Implementation, New Delhi, P 176.

[viii] A World Bank Study estimates that the where electricity demand in the country is very high in Northern Grid of India. Its demand increases by more than three times between 2015 and 2040. On the other hand, this grid has only a limited supply of coal and imported coal based generation would be rather very costly both because of the higher landed cost of imported coal and transportation costs from the nearest port, which is 1200km away from the load center (Delhi). World Bank, The Benefits of Expanding Cross-Border Electricity Cooperation and Trade in South Asia, Final Report, World Bank Project Number P143029, 2016

[ix] Like The Nordic Pool that expanded from Norway and included Sweden in 1996 finally covering nine countries.

[x] Mahfooz Ahmed Bhatti, presentation made in the Workshop on Challenges and Prospects for Regional Electricity Cooperation and Trade in Central Asia and the Caucasus Energy transit and cross border.

[xi] It undertook a modelling based on optimal load-flow analysis, transmission constrained investment and dispatch optimization with Monte Carlo simulation to incorporate uncertainties

[xii] Involves transfer of 1,873 GWh of transfer, (86% utilisation) thus reflecting "the significant import potential of the line".

[xiii] 6-7 times higher than the costs. The fuel cost savings alone for a single year would justify the total interconnection investment.

[xiv] Transfer increases to 3,129 GWh

[xv] Lama, Mahendra P & A.R. Kemal et al, "Power Sector Reforms in India and Pakistan: Scope for Cross Border Trade in Power", Jawaharlal Nehru University, New Delhi and Pakistan Institute of Development Economics, Islamabad. Project funded by South Asia Network of Economic Research Institutes, 2006.

[xvi] Sindh consumes 20.2 percent, KPK 11.4 percent and Balochistan 5.5 percent. Pakistan Economic Survey, 2011-12, p 200

[xvii] On the south-western border, there are relatively few lines on the Pakistani side of Punjab. The only weak possibility of transmission appears to be in the areas of Fort Abbas and Faqir Wali grids (with relatively low KV) in Pakistani Punjab to the Indian lines near Anupgarh.

[xviii] The 500-KV transmission lines currently under construction in the public sector in Pakistan are estimated to be 1726 km long. An additional 1727 km of 500-KV transmissions lines are planned to be constructed by the private sector.

[xix] Statement by the Power Minister of Pakistan Gohar Ayub Khan, Hindustan Times, January 16, 1999. Also see Lama, Mahendra P, "Economic Reforms and Cross Border Power Trade in South Asia" , South Asian Survey, New Delhi, September – December 2000.

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