

Volume 5, Number 1
July 2007

Editor:
Jeffrey Boutwell

Research Assistants:
Erin Blankenship
Celeste LeRoux

Design and Layout:
Anne Read

Printing:
Cardinal Press
Fredericksburg, Virginia

Pugwash Issue Briefs

highlight important issues which lie at the intersection of science, technology and public policy.

Intended for wide circulation to policy makers and analysts, the media, NGOs, the academic and research communities, as well as the Pugwash community, *Pugwash Issue Briefs* will contain articles, commentaries and conclusions that emanate from the broad range of Pugwash workshops and conferences held each year.

Perspectives and recommendations contained in the *Issue Briefs* represent those of the individual authors, not of the Pugwash Conferences or its funders. This *Pugwash Issue Brief* has been funded in part by the Carnegie Corporation of New York and the U.S. Institute of Peace.

Pugwash

I S S U E B R I E F

*Issued by the Council of the Pugwash Conferences on Science and World Affairs,
Nobel Peace Prize 1995*

Exploring the Potential for Economic Development and Cross-LoC Collaboration in Jammu Kashmir

by Moeed Yusuf

Introduction

The territorial dispute over the state of Jammu and Kashmir is the single most contentious issue between Pakistan and India. The issue has been directly or indirectly linked to several Indo-Pak wars and crises. While persistent efforts have been made to find a resolution to the dispute, traditionally, the entire debate has centered on concerns about territoriality, sovereignty, principle of equality, and moral legitimacy. All of these are aspects that allow for little flexibility without invoking political repercussions for authorities on both sides. Notwithstanding, the failure of the two sides to resolve their differences within the traditional paradigm has finally pushed them to broaden their vision and allow more 'innovative' ideas to be debated. The post-9/11 geopolitical situation in South Asia has acted as a major push factor for Islamabad and New Delhi to approach the issue with a new resolve. The positive spin-off of this welcome change is the window of opportunity for relevant stakeholders to contemplate 'out of the box' thinking on Jammu and Kashmir. The debate is now increasingly moving away from trying to impose a permanent solution to adopting a more gradual approach to the issue. Stake-

holders finally seem to have realized the importance of viewing the ultimate solution as a product of a long drawn out process that aims to create an indigenous constituency for peace as well as an incentive structure for Pakistan and India such that they allow for complete normalization of the dispute.

Perhaps the most promising 'out of the box' idea floated is the possibility of accelerating economic development and strengthening human interaction in both parts of divided Kashmir, both independently of each other as well as in a cooperative framework. The hope is that over time such an approach would integrate peoples and economies on both sides substantially, thus forming a potent constituency for permanent normalization.

The impetus to explore the economic route to enhance the likelihood of political reconciliation is grounded in the liberal theory of economic interdependence. Proponents of the theory perceive trade to be inherently beneficial for countries as it brings efficiency gains for producers, consumers, and governments. Interdependence, in turn, ought to bring amelioration of tensions or conflict as a welcome political externality.¹ On the domestic front, trade

theorists contend that increased trade spurs domestic economic activity, thus generating employment, reducing unrest and increasing cooperation within local populations.² The economic theory of interdependence provides the conceptual framework for our analysis.

While the debate on the potential for economic integration in Jammu Kashmir has been initiated, it is being conducted in a broadly defined framework. Thus far, there has been little effort to focus on the particular avenues for collaboration and the implementation mechanisms that could be employed. Moreover, the need for a proactive civil society role to lend permanence to such an approach is virtually absent from literature. This paper seeks to fill the void by discussing various potential aspects for economic cooperation and the role a vibrant civil society could play within such a framework. We focus primarily on the possibility for development in Pakistani Kashmir³ and on identifying the avenues for joint initiatives with Indian Kashmir from Muzaffarabad's⁴ perspective.

The paper begins by providing a brief overview of the Kashmir dispute. The socio-economic profile of Pakistani Kashmir is then presented. Next, a detailed discussion about various avenues for economic development in Pakistani Kashmir and the potential initiatives where Pakistani and Indian Kashmir could cooperate with each other are highlighted. This discussion is followed by a mention of the potential for civil society involvement in the proposed framework. The penultimate section

identifies various sources to finance the suggested plan. Finally, we briefly discuss some governance concerns relevant to the economic cooperation design.

Overview of the Kashmir dispute

Jammu and Kashmir are considered a single entity but in two parts, located in the northwest part of the South Asian sub-continent. It is landlocked and borders the Indian states of Himachel Pradesh and Punjab to the south, Pakistan to the west, Chinese territory of Sinkiang and Tibet to the East and Afghanistan to the northwest (see annex 1).⁵ Almost 80 percent of the state's population is Muslim. Pakistani Kashmir has a population of 4.1 million, almost all of which is Muslim.⁶ Indian Kashmir comprises 10 million people, of whom 75 percent are Muslims.⁷ Within Indian Kashmir, the Kashmir Valley, which is the heart of the dispute, has a population of over 3 million, 93 percent of which is Muslim.⁸ The region of Jammu also comprises nearly 3 million people, with 57 percent Hindus and 40 percent Muslims.⁹ The district of Ladakh is inhabited by 1.5 million people, 55 percent of whom are Buddhists and approximately 40 percent are Muslims.¹⁰ The latter are predominantly Shia.

The origins of the Kashmir dispute lie in the partition of British India. Kashmir was a princely state of British India whose ruler was given the option of joining one of the two new states, Pakistan and India, based on the guiding principles of religious majority and geographical continuity.¹¹ As post-partition events unfolded in Jammu Kashmir, the Maharaja, a Hindu, was faced by a Muslim rebellion, which threatened his rule. Under serious threat of a takeover by the rebels, the Maharaja requested military help from the Indian government, and as a pre-condition acceded the state to India.¹² Yet by the time military assistance from India arrived, the Muslim rebellion had already managed to capture Muzaffarabad (now capital of the Pakistani Kashmir).¹³ The present day territorial distribution of Jammu Kashmir broadly reflects the area each side managed to bring under its control at the time. The government of Pakistan refused to accept Kashmir's accession to India, which it claimed violated the fundamental principle that formed the basis for partition.¹⁴ It further



Moeed Yusuf is currently a Special Guest scholar at the Brookings Institution, USA. He is also a candidate for a Doctorate in Political Science at Boston University, USA. His permanent affiliation is with Strategic and Economic Policy Research (Pvt. Ltd), Pakistan where he serves as a Research Fellow. He is also a visiting scholar at the Sustainable Development Policy Institute (SDPI), Pakistan. Mr. Yusuf focuses on both political economy considerations as well as concerns falling within the ambit of Pakistan's security policy. His research interests include: Pakistan's macro-economy, trade and sustainable development issues, prospects for investment in economic ventures of strategic importance, South Asian nuclear weapons and the "stability-instability paradox," relevance of nuclear deterrence versus nuclear proliferation in South Asia, global non-proliferation regime, the Kashmir dispute, and United States strategic interests in South Asia.

Mr. Yusuf has taught as a member of the visiting faculty at the Department of Defence and Strategic Studies at Quaid-e-Azam University and is currently a Teaching Fellow at Boston University's political science department. Mr. Yusuf has published widely in national/international journals, organizational publications, and magazines. He writes a weekly column in *The Friday Times*, Pakistan. He is currently also engaged in writing a book, which is a compilation of his previous writings on strategic and economic issues relevant to Pakistan. The author would like to thank Gen. (ret.) Talat Masood and Jeffrey Boutwell for helpful comments on the paper.

alleged that Kashmir's accession came about as a result of 'fraud and violence' that allowed India to exert pressure on the Maharaja.¹⁵

The issue acquired international status when India took the matter to the United Nations (U.N.) Security Council in 1948.¹⁶ Despite efforts by the U.N. and periodic discussions on Kashmir between Pakistan and India in various forums, no tangible progress has been made on the issue. To the contrary, Kashmir has been the cause of Pakistan-India armed conflict in 1948, 1965, and 1999.¹⁷ Near-war crises relevant to the tense situation were experienced in 1987, 1990, and 2001-02.

Apart from the impact on bilateral relations, the dispute has had tremendous impact on the state of Jammu and Kashmir itself. Indian Kashmir has had a turbulent existence ever since independence. The state has witnessed a perpetual presence of secessionist elements which have resulted in periodic violence. Resentment in Indian Kashmir climaxed in 1989 when an active insurgency erupted in the state. Ever since, the insurgency has proceeded with an intensity that is matched by few other conflicts in the world. The fall out has resulted in the killing of over 60,000 people and a much higher number of injuries sustained by civilians, security personnel and militants.¹⁸ While Pakistani Kashmir has not experienced active violence, the region has lagged behind in terms of macroeconomic development. Having viewed the region entirely in a strategic paradigm, Islamabad has often maintained a tight fist control over its part of the state, overlooking the pressing socio-economic development concerns in the process.

The ongoing violence and the overall mistrust between Pakistan and India have meant that the two parts of Kashmir have remained completely cut-off from each other over the years. Trade between the two sides is also non-existent. Catering to their insecurities with regard to Jammu Kashmir, Islamabad and New Delhi have treated the divided Kashmir as two isolated entities. This has taken away the potential to explore natural complements between the peoples and economies of the divided state.

As already mentioned, of late, the traditional disconnect has been undergoing revision. Both sides have finally begun to step down from their maximalist positions. In the past four years,



Pakistan and India have concluded a formal ceasefire on the LoC, initiated a bus-service between Muzaffarabad and Srinagar, agreed to do the same for the Rawalakot-Poonch route, opened five LoC crossing points in the aftermath of the earthquake, and reached an agreement to allow trade in raw materials across the LoC.¹⁹ These are commendable initial steps that ought to be continued in a quest to accelerate the process towards normalization. In this regard, the need to develop an institutionalized framework for economic cooperation is key. Before deliberating upon this issue however, it is important to highlight the existing socio-economic situation in Kashmir.

Socio-economic profile of Jammu Kashmir and Northern areas

The urgent need for addressing economic concerns in Jammu Kashmir is obvious from an overview of the state's dismal socio-economic profile. Pakistani Kashmir's per capita income stands between USD 185-200.²⁰ The economy is predominantly rural in its orientation. As much as 88 percent of the population is dependant on agriculture and forestry as the principal source of livelihood. In the rural areas, income from households' earnings constitutes as much as 40 percent of the total income, with the rest coming from employment, business or remit-

Jammu Kashmir



.....
 Paolo Cotta-Ramusino,
 Amitabh Mattoo, Pres. Pervez
 Musharraf, and Gen. Talat
 Masood at the Pugwash
 Conference on Kashmir,
 Islamabad, March 2006.

tances.²¹ The latter forms a major part of resources flowing into the state for private use. The state's economy has been adversely affected in recent years due to a significant decline in agricultural productivity.²² Industrial development in the state has been sluggish. Despite an increase in the number of industrial estates over the years, only marginal progress has been achieved in terms of industrial production. The unemployment rate is estimated between 35-50 percent.²³ The Northern areas register a per capita income of approximately USD 120.²⁴ The economy is agrarian, but productivity is low due to the harsh climatic conditions. Industrial activity is minimal. There is hardly any developed urban town to speak of in the entire northern belt.

Social indicators in Pakistani Kashmir are equally dismal, although the state has fared better than Pakistan's national average in terms of literacy. Literacy rate estimates put the figure at 55-60 percent. Incredibly, about 27 percent of the state's recurring budget and about 10 percent of the development budget is allocated to education. Gross enrollment rates stand at a remarkable 95 percent for boys and 88 percent for girls. Unfortunately, the story is quite the opposite on the health front. There are only 0.5 beds and 0.191 doctors per 1000 people. The infant mortality rate however has been reduced significantly to 56 deaths per 1000 live births. Almost 38 percent of the rural population and 23 percent of the urban population do not have access to piped water.²⁵ In the Northern areas, literacy rates stand at an abysmal 33 percent. Female literacy is even lower at 25 percent. No more than

40 percent of the villages have access to water.²⁶

For Indian Kashmir, it would suffice to say that the situation is not much different. The state has experienced much lower economic growth rates than India's national average. The per capita net state domestic product grew at 12.45 percent annually from 1980-2000, a rate much lower than most other Indian states.²⁷ Like Pakistani Kashmir, industrial development has been slow and unemployment rates have remained substantially high. The insurgency has played a major role in disrupting the state's economic growth. Moreover, social indicators reflect the poor quality of life for citizens. Literacy stands at 54.5 percent, well below India's national average.²⁸ Indian Kashmir's human development index is below the national average as well. Moreover, the state's ranking in terms of human development has declined over the years.²⁹

Potential for trade in goods between Pakistan and Indian Kashmir

In this section, we look at the potential for inter-Kashmir trade in goods. Although literature on economic interdependence often meshes the aspects of trade in goods with avenues for joint ventures and investment opportunities, the policy prescriptions for the two aspects are in fact quite distinct. There is thus added value in treating trade in goods independently from investment/joint ventures.

Trade in goods: A static estimation

Currently, there are hardly any quantitative estimates of trade potential between Indian and Pakistani Kashmir. This is largely a result of unavailability of detailed trade data. Nevertheless, a rudimentary estimation is possible.

Ten years ago, imports into Indian Kashmir were higher than exports by approximately a factor of four. While industrial production has increased, the ratio has remained largely unchanged. Although no official trade figures for Pakistani Kashmir could be obtained, it is known that the export potential for Azad Kashmir is lower than Indian Kashmir.

A notional estimate for export potential from Indian Kashmir to Pakistani Kashmir could be derived from the above table. The maximum exportable value is USD 155.20 million. At the risk of being unrealistic, even if we presume that

Indian Kashmir’s entire exportable surplus is traded with Pakistani Kashmir, the amount comes to USD 155.20 million. Given the fact that Pakistani Kashmir’s potential is lower, the exportable surplus would be below USD 155.20 million. Therefore, the total trade potential would fall below USD 310 million. Even this highly exaggerated figure is hardly attractive.

Admittedly, trade potential between geographically contiguous conflict-economies is often understated if the analysis ignores informal trade volumes, which usually thrive under conditions similar to those in Jammu Kashmir. Indeed, a number of studies on India-Pakistan trade contend that official statistics understate trade volumes substantially since the bulk of the trade is conducted through informal means. The reality however, as highlighted in a recent analysis conducted by the Sustainable Development Policy Institute (SDPI), an Islamabad based think-tank, is that informal trade amounts to a mere USD 544 million.³⁰ More importantly, the study dispenses the previously held perception that the LoC near the Neelam River was one of the major exchange points for informal consignments between Pakistan and India (this would constitute inter-Kashmir informal trade). The SDPI study found informal exchanges across the LoC to be so insignificant that the route was left out of the final analysis. In essence, inter-Kashmir informal goods flows are minimal.

Further pessimism is shed on the potential for trade in goods if one looks at the breakdown of the exportable commodities. For Indian Kashmir, the key export items include textile products, carpets, cricket bats, walnut and walnut kernels, apricot nuts, almond, coriander, saffron, lentils, fluxes and chemicals, basic drugs, and sewing machines. Pakistani Kashmir’s major exports include marble, apricot, rice, onion, garlic, and fertilizers. The craft industry is a major production component in the economy on both sides as well.

In order to determine trade potential, one must eliminate products that are either being produced indigenously across the LoC or can be obtained at cheaper rates from either Pakistan or India (or any third country). The bulk of the value-added products fall in this category. A number of existing analyses confirm this by pointing out that in the final outcome cross-

LoC trade is likely to end up focusing on primary products, with horticulture exports going from Indian Kashmir and vegetable and fertilizer exports flowing from Pakistani Kashmir.³¹ Trade volumes in other commodities are likely to be relatively small.

Enhancing the potential for trade in goods

As ought to be clear from the above, a static analysis paints a fairly dismal picture with regard to trade in goods. The low trade potential validates the abysmal economic situation on both sides of the LoC. Clearly, conflict in the region has stifled economic opportunities, deterred private sector activity from taking off, and consequently left the economies largely dependant on primary goods production, with little exportable surpluses. There is thus an urgent need to explore avenues both to optimize trade under the current economic structures as well as to seek areas to enhance economic productivity on both sides of the LoC, which would eventually lead to higher exportable surpluses. A number of avenues could be explored in this regard.

To optimize the current trade potential, the foremost requirement is to remove all tariff and para-tariff barriers to inter-Kashmir trade. There are existing proposals that call for integration of Jammu Kashmir, India, and Pakistan through a sub-regional free trade agreement within the South Asian Free Trade Agreement (SAFTA) framework.³² While this is realistic only in the long run, a less ambitious variant of this could be a preferential trade arrangement which allows for cross-LoC duty free access of raw materials and value added goods of Kashmiri origin. This would also necessitate having an agreement on the rules of origin. No sensitive lists ought to be prepared, thus allowing all Kashmiri products to be traded free of duties. To maximize gains, an appropriate regulatory framework for tax breaks and simplified trade modalities would also have to be devised. A positive beginning on this front would be to ensure that the recent agreement to trade raw materials across the LoC allows exchange free of tariff and para-tariff barriers.

Even before the preferential arrangement is concluded, both sides must explore the option of establishing border markets at designated points. Three obvious locations could be the

Table 1: Trade statistics for Indian Kashmir
in USD million

Year	Import	Export
1994-95	563.67	124.60
1995-96	687.07	149.30
1996-97	659.14	155.20

Source: Official statistics released by the Jammu and Kashmir Government, India.

Ideally, border markets should serve as the center of commerce activity, where people from across the LoC are allowed to visit, using officially stipulated travel documents to cross the LoC.

Poonch-Rawala Kot route, Uri, and Chakothi. All of these are current bus/truck routes.³³ The fourth suggested point is near Kargil from where a road link between Kargil and Skardu would potentially pass in the future. The Kargil-Skardu route has been identified, as it would end up bringing economic interaction to an area that is essentially deprived of any commerce activity at present.³⁴

Ideally, border markets should serve as the center of commerce activity, where people from across the LoC are allowed to visit, using officially stipulated travel documents to cross the LoC.³⁵ Not only could such border markets act as retail hubs, but they could also provide opportunities for traders on both sides, be they farmers, craftsmen or producers of other value added products, to meet and conclude future business deals. This would be a luxury that even Pakistani and Indian businessmen cannot afford given the stringent visa controls exercised by Islamabad and New Delhi. Arguably, enhanced interaction could lead producers on both sides to gauge consumer preferences and specialize products, especially crafts and value added goods. Moreover, trade through border markets would cater not only to the demand for the residents of Jammu Kashmir but also to tourists that visit either part of the state.

Apart from increased economic activity, potential positive spin-offs of establishing border markets include regular people-to-people contacts. Moreover, if such markets are made a daily affair, the food industry on both sides could also gain by virtue of their presence in the border markets. Domestic transport requirements for shipment of goods to the markets will also increase. Moreover, were a quota for a certain proportion of rural producers (especially for agricultural producers) to set up retail stations in the markets be established, which is highly desirable, the mechanism will ensure easier market access for the rural poor.

The trade facilitation framework suggested above must be complemented by aggressive marketing strategies, which seek to project tradable goods to Kashmiris as well as foreign tourists. Currently, marketing of Kashmiri products and services is virtually non-existent.³⁶ Neither India nor Pakistan have fully included Jammu Kashmir in their global trade projection

strategy. Consequently, hardly any professional marketing entities or strategies exist on either side of the LoC. Much of the exports are facilitated through individual contacts. Authorities on both sides of the LoC must therefore push their respective countries to promote Kashmiri exports, at the same time developing an internal marketing dynamic.

Intrinsically linked to the need for robust marketing is the availability of adequate communication networks. Telecommunication and internet facilities are a major aspect of any modern economy. The Pakistan military's hold on Pakistani Kashmir's landline telecommunication must be loosened to allow Pakistan Telecommunication Limited (PTCL) or any private sector company to extend landline services.³⁷ The mobile telecommunication companies are already operational in the region, whose network should be further expanded. As for world wide web services, while both countries, especially India, have managed significant progress in access to basic internet facilities, Kashmir has lagged behind to a large extent. Pakistani Kashmir and the Northern Areas must receive immediate attention in terms of expanding areas with access to the internet, at least to cover all urban towns. Given the necessity for swift communication modes in a modern economy, lack of adequate telephone and internet facilities could prove to be a major hindrance.

A preferential trade arrangement, border markets, and marketing strategies would all produce limited success if the productive capacity on both sides of the LoC remains stagnant. Over the long run, the growth in inter-Kashmir trade volumes will primarily be a function of the extent to which both sides are able to enhance production at efficient levels. In the case of Pakistani Kashmir, there is tremendous scope to do so. Currently Pakistani Kashmir and the Northern areas use traditional agricultural production methods, thus reducing output ratios significantly. Agricultural productivity has also declined due to unsustainable practices.³⁸ Given the agrarian nature of the economy, introducing sustainable modern agricultural practices could boost economic growth substantially. While statistics on efficiency of industrial production do not exist, much of the crafts (which is a major part of industrial activi-

ty) industry by definition is not automated and thus works on low efficiency. The same is true for Indian Kashmir. Enhancing productive capacity in Jammu Kashmir could be done relatively easily by installing new production units. There is tremendous scope for expansion in the handicrafts, wood artcrafts, and handlooms industries.³⁹ Inviting private sector involvement and foreign investment would however be a necessary prerequisite to ensure sufficient inflow of resources to achieve expansion of productive capacity (see section on ‘financing the economic development plan’).

One other long-term efficiency-enhancing development could be to move towards an increasingly urbanized economy. Boosted by increased industrial activity, urban towns could serve as major wholesale and retail centers to supply exportable surpluses to the rest of Pakistan (and India for Indian Kashmir) as well as to international destinations.⁴⁰ The recent earthquake in Pakistani Kashmir has provided a natural opening for this sort of urbanization drive to take place. The government has approved plans to rebuild the city of Muzaffarabad as part of the earthquake reconstruction effort.⁴¹

Economic Development in Pakistani Kashmir and the prospects for cross-LoC cooperation

Having discussed the prospects for trade in goods, we now turn our attention to the potential for investments and joint cooperation in initiatives relevant to economic development. In terms of integrating the two sides of Kashmir, such endeavors carry much greater value. Unlike commercial trade, where exchange of goods could take place with minimal human interaction and without any intense collaboration in terms of economic activities, cooperative frameworks necessitate integration of institutions, functional processes, and in an ideal scenario, the overall economies as a whole. In the discussion below we identify the key sectors with a potential for tangible gains under a cooperative economic framework.

Transport infrastructure

For any program of economic uplift and increased trade activity in Kashmir, an adequate transport infrastructure is essential. Without this, much of the efficiency gains possible from



En route to Sonamarg in Kashmir

enhanced trade will be lost. Theoretically, transport has both direct and indirect economic impacts. Direct impacts are related to accessibility change where transport enables larger markets and time and cost savings. Indirect costs on the other hand are linked with the economic multiplier effect where increased product lines are available at lower prices.⁴²

The road communication network in Pakistani Kashmir has progressed tremendously since 1947. Starting from a mere 265 kilometers of road, the majority of which was unmetalled, today the region's roads span 9,816 kilometers.⁴³ Approximately 4,162 kilometers of these are metalled.⁴⁴ Substantial progress in road development has also been made in the Northern areas, where metalled roads now reach some of the remote tourist attractions. Quality of roads in Pakistani Kashmir and the Northern areas however remain a concern. Road networks in the Northern areas need to be refurbished, especially if these areas have to be positioned to attract global tourism (see section on tourism). A large part of the road network is also in dire need of upgrades. According to one estimate, 50 percent of the National Highway Authority's current network requires major rehabilitation.⁴⁵ The majority of the roads in the Northern areas and Pakistani Kashmir fall in this category.

The air network in Jammu Kashmir remains meager. There are only two small airports in Muzaffarabad and Rawalakot.⁴⁶ None have facilities that could allow it to cater to international trade. The Srinagar airport on the Indian side is also not used for international traffic and thus has limited utility in terms of international commerce.⁴⁷ Both sides are also missing dedi-

cated dry ports.⁴⁸ In essence, Jammu Kashmir has no direct link with the outside world except through Pakistan and India.

Relevant to our discussion on inter-Kashmir cooperation is the lack of adequate transport links across the LoC. At independence, the only transport links that existed were a road from Rawalpindi (Pakistan) to Muzaffarabad (Pakistani Kashmir) and on to Baramula and Srinagar (Indian Kashmir), and a rail and road link between the cities of Sialkot (Pakistan) and Jammu (Indian Kashmir).⁴⁹ The Kashmir conflict has kept even the existing routes unoperational. Lack of maintenance has meant that these have eroded over the years. Recently however, there has been progress in reopening some of the traditional routes as part of the peace process. In April 2005, the Srinagar- Muzaffarabad road link was opened and a bus service initiated. The recent agreement allowing trade in raw materials between the two Kashmirs has also facilitated commercial trucks' movement on the route. The proposal to initiate a bus service from Rawalakot to Poonch has also been on the cards for some time. While such initiatives are welcome, there is a need to further enhance transport links, especially for commercial vehicles, in order to facilitate commerce activities. Revitalization of existing routes and road network extension would also facilitate trade in goods. One potential route to be developed is the Kargil-Skardu road, which relevant authorities on both sides could do jointly (each one could develop the road on territory under its control).

Kashmir's existing transport network links it to major cities in Pakistan, and not India. Geographical contours present Pakistan as a much more cost-effective route for inward and outward flow. Pakistan therefore has a natural advantage in utilizing its transport network to provide feeder services for Kashmir's trade. Were the road infrastructure revitalized and the rail link refurbished, the new airport at Lahore could serve as the hub of movement of goods not only to and from Muzaffarabad but also to Srinagar.⁵⁰ Both parts of the state could also benefit from Pakistan's expanded road infrastructure to utilize port services at Karachi. Pakistan's link with China through the Karakoram Highway (KKH) is also a convoluted, yet economically feasible route for Kashmir to

receive direct inflow of Chinese goods.⁵¹ Moreover, plans to extend KKH have a tremendous bearing on Kashmir's access to Central Asia and on to Europe.⁵²

Tourism

One direct casualty of the lack of infrastructural development in Kashmir has been the loss of tourism, which was once the mainstay of the state's economy. Kashmir's greatest potential in the service sector has always been its attraction to South Asian and extra-regional tourists. The Neelam Valley in Pakistani Kashmir and the entire stretch of the Northern areas in the country are prime tourist attractions. Northern areas are home to the Karakoram range which includes K-2, the world's second highest peak as well as some of the longest glaciers outside the polar regions.⁵³ Despite some efforts from the Pakistani government, no structured tourism industry exists in these areas. Consequently, the number of foreign tourists remains miniscule as compared to the potential.

With the right kind of investment in infrastructure development, Pakistani Kashmir and the Northern areas could become one of the most promising attractions for high-income tourists. There is tremendous scope for mountaineering expeditions. A few take place even today. Skiing resorts could also be built in the region, as could facilities for water sports. In addition, if Kashmir's history could be captured through museums, it is sure to interest Chinese and other East Asian nations that trace back their roots to this part of the world.⁵⁴ With direct road links with China and reports indicating that as many as 100 million Chinese tourists may be interested in joining the global tourist industry as clients, Kashmir could benefit immensely. Of course, physical infrastructure in terms of five star hotels, an expanded road network, communication systems, banking facilities, and health facilities would all have to meet international standards. Moreover, the authorities would also have to ensure good law and order throughout the entire region, which given the periodic sectarian tensions in part of the northern belt and the physical deployment of the military is likely to prove challenging.

Admittedly, infrastructure development is only one aspect of a thriving tourism industry.

Equally important is the need to have trained human resources who could manage such a specialized industry. This would be especially needed for an industry as large as the one being envisioned here. Moreover, the entire tourism sector would need to benefit from an aggressive marketing set-up that lures tourists from around the world through attractive packages. India could do the same for its side of Kashmir.

Possible avenues for inter-Kashmir tourism could include joint travel packages, which provision for visits to sites across the LoC utilizing the Muzaffarabad-Srinagar road link. This could be facilitated by establishing a Joint Travel Management Board.⁵⁵ Moreover, India could gain from its existing human capacity building track record to set up hotel management institutes in Srinagar, where Kashmiris from both sides could be trained. Other more specific vocational training institutes for personnel to be involved in various capacities in the industry could be set-up in urban towns on both sides of the LoC.

Environmental clean up

Forest Resources

A rather unique avenue for collaboration between Pakistani and Indian Kashmir is provided by the rich natural resources found in the state. Kashmir contains some of the most valuable forests in South Asia. Forests on both sides contribute tremendously to the construction and furniture industries, predominantly those operating in Pakistan and India. Natural forests were once a major source of revenue for the State. Unfortunately, massive degradation over the past few decades has led to considerable decrease in the sectors' economic potential. Notwithstanding, some areas near Muzaffarabad and Udhampur still maintain dense forest cover.⁵⁶ Moreover, the forest related institutions are extremely important, especially in Pakistani Kashmir where the Forest Department officially controls more than 42 percent of the total land area.⁵⁷

Moreover, on both sides, the forest industry is dominated by a small number of elite – the timber mafia – which is often politically connected and manages to siphon away large quantities of timber illegally. The wood based industries that draw upon these forests are also

dominated by elite, who resist efforts to remove market entry barriers in this highly lucrative business.⁵⁸ The end result is continued illegal extraction, and the lack of incentives to induce efficiency in the production practices of the wood industry.

Literature on forest preservation details a number of varying instruments through which conservation could be ensured. In the South Asian context, experiences in Nepal, India, and Pakistan have proven the worth of community participation through joint forest management (JFM).⁵⁹ In this light, the Muzaffarabad-Udhampur forest belt could potentially be jointly managed. Even if security concerns do not allow communities to cross over the LoC as frequently as is needed for JFM in the near future, communities from both sides could interact intermittently to share best practices and jointly plan future initiatives regarding protection, harvesting and regeneration. Civil society organizations with forest sector expertise, even if they are not Kashmir based, could be involved to guide communities on formulating JFM plans.

Another option could be to involve the private sector through public-private partnerships (PPPs) in the forest sector, an avenue that state monopolies on forests on both sides have quashed over the years. PPPs are considered valuable as they can assist in conservation efforts at the same time helping provide sustainable livelihoods to resource dependent communities.⁶⁰ There is already some movement in various provinces in Pakistan to allow private sector involvement in the traditionally monopolized sector.⁶¹ Investors from the same or opposite side of the LoC could either be allowed to lease out land with a stipulation to meet demand for forest products within the state before exporting harvests elsewhere. In addition to state forests, PPPs could be extended to wastelands for plantations, agro-forestry, social forestry, wildlife breeding and conservation of biodiversity.

An immediate opportunity to jump start collaboration in forest management is provided by the ongoing reconstruction in earthquake-affected areas. The forest resources, which were already depleted, are now under further threat due to the enormous task of physical reconstruction in the region. Both sides could share best practices to ensure sustainability during the

With the right kind of investment in infrastructure development, Pakistani Kashmir and the Northern areas could become one of the most promising attractions for high-income tourists.

reconstruction phase. For the next three to four years, a one-off activity could be to promote privately owned nurseries on both sides of the LoC. These would produce saplings for regeneration purposes, which could be sold under contract to the government of Pakistani Kashmir.⁶² Since Indian Kashmir's earthquake related rebuilding needs are miniscule compared to Pakistani Kashmir's, the former would be involved in the process mainly to reflect good will.

The ultimate objective of collaboration in forest preservation would be to revitalize resources for use in indigenous wood based industries. Granted, this would only be possible over the long run. However, once achieved, wood based industries on both sides could benefit the state's economy tremendously through furniture exports. Much of the exports would be destined for extra-Kashmir sources since the forest species on both sides of the LoC, and therefore their uses, are virtually identical.

Waterways

Kashmir's waterways intrinsically link Pakistan and India. All three major rivers of Pakistan, the Indus, Jhelum and Chenab flow through Jammu Kashmir. The fact that watersheds lie across the LOC implies that Pakistan is directly affected by the state of rivers in Indian Kashmir. Therefore, it has a stake in ensuring sustainability of water resources. Currently, all three-river tracks in Indian Kashmir are highly polluted. They are regularly used as dumps for human, animal agricultural and industrial waste.⁶³ Moreover, river catchments are heavily encroached.⁶⁴ Water pollution has had severe implications on aquatic flora and fauna, as well as on human health. To exacerbate the situation, downstream pollution levels in Pakistani Kashmir and Pakistan are also high.

An economic fallout caused by the water pollution is the decreased attraction of water fronts as tourist spots. Traditionally, a combination of the splendor of the mountain ranges and the waterways flowing through mountain valleys formed tourist hubs in the state. Moreover, the potential for the eastern tributaries, especially Jhelum, as a trade channel is tremendous. In British India, Jhelum was a major channel for downstream trade flow to Punjab and Sindh. Human interference and solid waste dumping

have taken away the riverine transport potential. Restoring this potential would mean taking some pressure off the road network, at the same time raising efficiency levels in transporting goods naturally suited to riverine transport (e.g. timber). Finally, contaminated water's health impacts, and in turn the affect on the households' poverty, are negative spin-offs, which while not quantifiable, result in dampened economic growth.

Pakistani Kashmir and Pakistan have much to gain from environmental clean-up. Reports have indicated that there is already interest in collaborating on environmental clean-up on both sides of the LoC.⁶⁵ Inter-Kashmir collaboration on this front could include a joint environmental clean-up exercise and regular exchange of data on water flows and quality.⁶⁶ Since a joint clean-up initiative may require buffering water flows or temporarily rechanneling outflows, a political consensus on such collaboration must be reached in advance. In addition to being mutually acceptable, the program would have to be situated within the confines of the Indus Water Treaty, which is the guiding framework for water sharing between Pakistan and India. Failing a political consensus, either Pakistan or India could raise concerns about the Indus Water Treaty being violated in the guise of environmental sustainability.

Power generation

Perhaps the most potent economic use of Kashmir's water resources is its electricity generation potential. The total hydroelectric potential of Jammu Kashmir's water resources is estimated at 15,000 megawatts, which far surpasses the demand of Kashmir, northern India, and Pakistan.⁶⁷ Notwithstanding, it is ironic to note that despite containing watersheds for all major rivers in Punjab, Jammu Kashmir remains severely energy deficient. Indian Kashmir is the most energy-starved state in the country.

Pakistani Kashmir has made tremendous progress in terms of expanding its power network. Six hydel stations are operational in the state, an avenue that must be explored further. A total of 17,000 kilometers of transmission lines are providing electricity to over 360,000 households.⁶⁸ By 2009, 100 percent of the population would have access to electricity.⁶⁹ Despite the quantitative gains, quality of trans-

mission remains poor. Power outages, either through planned load shedding or faults in the transmission system are common. Therefore, authorities in Pakistani Kashmir must invest heavily in maintaining existing infrastructure to cut transmission losses.

The potential to collaborate with Indian Kashmir on hydroelectricity is also tremendous. Thus far, the sensitivities surrounding the interpretation of the Indus Water Treaty and the mutual insecurities between Pakistan and India have not allowed any cooperation in power generation. Both Pakistan and India are developing hydroelectric projects in close proximity to each other across the LoC, but without any collaboration. Shahid Javed Burki, a renowned Pakistani economist, has suggested a realistic plan whereby a careful study of the power generation potential of the Indus system could be followed by a joint proposal to tap the potential.⁷⁰ Burki argues for the need to have an integrated power grid, which could be based on an extension of the current distribution systems on both sides of the LoC. In Burki's estimate, such a joint initiative could produce as much as 7,500 megawatts of additional power.⁷¹ This arrangement however, would require a sub-regional agreement within the framework of the Indus Water Treaty. The World Bank or any other international body could provide the overall auspices. The terms of the agreement would also have to stipulate the revenue sharing arrangement from export of surplus energy. Apart from Pakistan and India, export surpluses could find markets in the surrounding Central Asian republics.⁷²

A less ambitious option could be to have a joint power generating project situated on the LoC.⁷³ Regardless, any joint arrangement for power generation would have to go through intense negotiations to ensure that both sides are comfortable that the Indus Water Treaty would not be undermined, and that resources and revenues would be shared equitably. A formal regulatory framework would also have to be put into place.

Information Technology

The role of the IT industry on both sides is multifaceted and could underpin the very success of the entire economic cooperation program. For one, the IT industry could become the mainstay

of Jammu Kashmir's marketing and information projection strategy. The entire economy ought to move towards automation in order to ensure efficiency in trade deals as well as to promote investor friendliness.

India has already transformed into the global hub of the IT service industry. While Indian Kashmir has not been a major actor in the country's IT revolution, the positive spill-over has nonetheless impacted Indian Kashmir favorably. According to the FICCI, as many as 10,000 skilled IT professionals are present in Indian Kashmir.⁷⁴ A software technology park and an Electronic Industrial State have already been established.⁷⁵ FICCI's recommendation to set up a technical university is also being contemplated. To the contrary, the situation in Pakistani Kashmir and the Northern areas is dismal. While an IT board has been set up in Pakistani Kashmir, awareness about the basic concepts of IT is low, the skilled professional pool is inadequate, software parks are absent, and there are hardly any information or learning centers to enhance youths' interest in the field.⁷⁶

Arguably, the demand for IT services on both sides of the LoC could be expected to increase tremendously once Kashmir transforms into a modern economy and banking, e-commerce, and e-governance practices are instituted. Therefore, there is a need for Pakistani Kashmir to accelerate IT development in the state. To begin with, Pakistani Kashmir could utilize the software development capacity across the LoC by outsourcing assignments. In order to develop human resource capacity for long term sustainability, Indian IT professionals could be requested to teach at small IT training centers that could be set up in Pakistani Kashmir. Moreover, IT students from Pakistani Kashmir could study in the proposed Indian technology institute in Indian Kashmir. The Indian side could also help their Pakistani counterparts in setting up software technology parks and other such IT ventures. Moreover, the establishment of clusters of basic IT service providers – call center, transcription, etc. – even if only at a small scale, could crowd in education and investment that provides a future to indigenous labor that would otherwise migrate to the South for employment. Programs that civil society could engage in would entail addressing the

supply chain of IT labor from education to entrepreneurialism and find partners to provide seed funding to establish businesses in Kashmir.

The Education Sector

As already mentioned, Pakistani Kashmir has fared well as far as education is concerned. The Northern areas however, are a different story. Apart from enhancing access to education in the Northern areas, which is already a stated goal of the Government of Pakistan, there are two relatively unexplored avenues for improvement. First, both parts of Kashmir could initiate an exchange program for a small quota of students between postgraduate institutions on both sides. The University of Jammu has already established its mark, and could be an attractive site for students from Pakistani Kashmir. Any one of the seven postgraduate colleges in Pakistani Kashmir could host Indian Kashmiris.⁷⁷ Given the sensitivity about such exchanges under the current mindset, one could envision starting with an extremely small quota, perhaps half a dozen students each year, and gradually build up such interaction. Student interaction at the academic level carries special importance to ensure a holistic cooperative framework, as centers of learning often end up being the hub for creative ideas and innovative prescriptions to approach seemingly intractable solutions. Such interaction would also be instrumental in bringing the young population to appreciate the cultural similarities on both sides.

Another avenue for cooperation is for Pakistani and Indian Kashmir to share their experiences on improving the quality of education. Low quality of education, especially at the elementary level in the rural areas, is a problem that both sides continue to struggle with. In this regard, educational administrators (including non-government) could build on their existing programs for teacher training, either limiting interaction to sharing best practices or exchanging master trainers that could serve short term tenures at teacher training institutes across the LoC. Admittedly, the Pakistani Kashmir model for teacher training is exemplary in its design, and if implemented properly, could foster positive change among the teaching cadre. Teachers are trained in public sector training institutes. In addition, the government offers curriculum inte-

grating training courses to primary and middle school teachers, develops and distributes training packages, provides textbook training and evaluation for curriculum development, and improves the assessment and exams for teachers.⁷⁸ Teacher trainer capacity building, continuous assessment (via district assessment cells) and training with guides and materials are also part of current government activities.⁷⁹ Indian Kashmir could implement a similar program, and also interact with the Pakistani side to determine how best to tackle implementation bottlenecks currently faced by Pakistani Kashmir.

The civil society NGOs could also play a major role in capacity building parallel to government efforts, especially at the higher-level institutions. Such initiatives are already being witnessed. NGOs could come in with expertise in assessment techniques, identify strengths, weaknesses, opportunities for improvement and threats and serve as a management tool for the effective planning for each school. Distance education through teacher certification, pre-service and in-service training as well as graduate and post graduate qualifications in education could also be instituted by NGOs. They could also help in training the trainers in techniques that ensure creative learning and child centered approaches. Adopting schools is another possibility for NGOs, given the lack of state capacity – in order to refurbish them, increase the level of teachers and increase enrolment levels.⁸⁰

Anti-poverty programs

One of the remarkable achievements specific to the Northern areas in Pakistan has been the high level of community mobilization, a welcome scenario not often witnessed in South Asia. Much of this has been made possible by the Rural Support Programs (RSPs), which have a nation wide presence in Pakistan, but maintain most penetrability in the Northern areas. RSPs are basically micro-lending programs which seek to target the poor. They are also involved in rural infrastructure development in a number of villages.⁸¹ The most important aspect of the RSPs is that village communities themselves are tasked to determine the deserving 'poor' who ought to receive micro-credit, as well as identify the infrastructure development projects that would prove most beneficial for

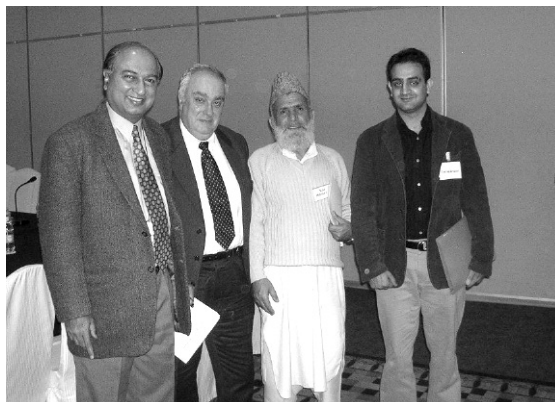
the village residents.⁸² Such a structure ensures the presence of highly mobilized communities whose energies could easily be utilized in any inter-Kashmir cooperative framework.

Relevant to our discussion is the need for the RSP structure to be replicated extensively in Pakistani Kashmir. Not only will this serve the goal of poverty alleviation at the household level, it will also inculcate the spirit of community mobilization in the state. Indian Kashmir, where the insurgency has stifled any opportunity for developing a robust civil society, could learn from the RSP experience. One could even envision the RSP top-brass conducting orientation and training courses for their Indian counterparts and/or setting up the program in a few model villages in Indian Kashmir. Given that poverty reduction is a common goal across the LoC, should Islamabad and New Delhi become serious about taking the economic route in Kashmir, both would likely welcome such interaction. Indian Kashmir would also welcome an opportunity to replicate one of the most successful poverty reduction programs in Pakistan.

Disaster Management

Jammu Kashmir is predicted to be a site for regular seismic activity in the coming years. Moreover, the state is already vulnerable to other natural disasters like land slides. Therefore the potential for economic and human losses due to such disasters is high. The devastating earthquake in Kashmir in 2005 highlighted the potential magnitude of disaster-related losses. The estimated cost of bringing Pakistani Kashmir's economy to the pre-earthquake level in six years is USD 10-12 billion.⁸³ The 2005 earthquake also underscored the utility of allowing cross-LoC movement. Thousands of people in close proximity to the LoC on the Pakistani side remained trapped under the rubble for days without anyone from the Indian side being allowed to assist. Subsequently, Pakistan and India did agree to open five crossing points across the LoC but only to assist in the recovery effort in Pakistani Kashmir.⁸⁴ Even this measure has been only selectively implemented on the ground.

One possible buffer against future losses could be a joint disaster management plan. Moreover, the current lack of capacity to



Amb. Parthasarathi, Paolo Cotta-Ramusino, Mohd Abdullah Tari, and Imran Jeelani, at the Pugwash Conference on Kashmir, Kathmandu, Nepal, December 2004

respond to major disasters could be overcome by pooling capacities of the two parts of the state. A joint disaster management cell, with nominated officials from both sides should also be constituted and should meet periodically to exchange information and discuss potential plans and requirements on both sides of the LoC. Such a group would also benefit from presence of members of the civil society. Pakistan's disaster management plan which is being prepared under the auspices of the NDMA would have taken into account all lessons from the recent earthquake. It could thus be used as a benchmark for devising the inter-Kashmir joint disaster management program. Best practices from any existing Indian disaster management plans could also be incorporated. The plan ought to allow for movement of people across the LoC in addition to the exchange of all machinery that is not deemed to be 'sensitive' (helicopters, etc). The civil society could take the lead role in instituting community based training programs seeking to integrate traditional coping mechanisms with modern techniques for disaster mitigations. It could even liaison with relevant government functionaries to ensure the necessary disaster prevention infrastructure is available to each community in the region.

A note on civil society cooperation

Some potential avenues for civil society involvement in an inter-Kashmir cooperative framework have been discussed as part of the various initiatives suggested above. However, the real potential of the civil society in any peace bid lies not in its assistance in particular projects, but in its role as the underlying driver of the entire framework.

In South Asia, where the state often acts as a closed, impermeable entity, it is the civil society organizations that create the space for dialogue and cooperation through a bottom-up approach.⁸⁸ After years of dormancy, both Pakistan and India have recently experienced a substantial growth in civil society movements. Unfortunately, the lack of any genuine democracy in either part of Kashmir and the insurgency in Indian Kashmir has not allowed these currents to travel to Jammu Kashmir. Currently, while informal citizens boards and community organizations exist sporadically in the state, there are hardly any development NGOs to speak of on either side of the LoC. The absence of civil society in Kashmir has led to a lack of

any social institutions, which could help forge a common voice for peaceful coexistence. What is required is to spread the civil society movements in Pakistan and India to Jammu Kashmir. Then, as civil societies in the state engage with their counterparts from Pakistan and India, and thus grow in stature, energies could be channeled such that a cross-LoC vibrant peace constituency develops. Perhaps the most important role for the civil society in this regard is one of advocacy and social mobilization. Two set of actors would be pivotal in attaining this objective: the media and the academia.

As far as the media is concerned, both sides of Kashmir could build on the South Asia Free Media Association (SAFMA) model, which arranges regular interaction between the media communities from across South Asia in a quest to identify common themes and positions that could enhance cooperation among regional countries. A SAFMA delegation in 2004 was the first group of Pakistani journalists to be allowed to Jammu Kashmir after years of absence of any such interaction.⁸⁹ Media in Jammu Kashmir could cooperate under the SAFMA umbrella.⁹⁰ Frequent interaction between media personnel from both parts of Kashmir should focus on developing a joint stance on the avenues for collaboration across the LoC. As for specific initiatives, the two sides could have joint TV talk shows, even if they are situated in respective studios in Muzaffarabad and Srinagar. Joint press articles highlighting the potential for cooperation and the key constraints could also be written jointly by journalists from both sides of the state.

Kashmiri academia has an equally important role to play. To begin with, academics have an obvious task of undertaking in-depth research on various possibilities for Kashmir's future, including our proposed economic development model. Currently, academic research on Kashmir has been dominated by non-Kashmiris and thus often tends to miss the many intricacies and subtleties in the highly complex situation that must be addressed to present objective analysis. In all fairness, much of the fault lies with the indigenous academics for not having made any serious effort to cooperate, save through a few donor funded one-off research assignments. Academic research from Kashmir has not been able to provide any innovative ideas on the Kashmir prob-

Financing the economic development plan

The estimated cost for any major uplift plan depends on the envisioned constituent elements. Shahid Javed Burki's proposal for economic uplift (mentioned above), which includes six major sectors— power, tourism, physical infrastructure, water resources, forest and value added agriculture, and human resource development— is estimated to cost USD 25 billion.⁸⁵ With some additional elements and inclusion of the Northern areas (Burki's plan only focused on Pakistani and Indian Kashmir) in our suggested framework, the proposed transformation may cost USD 35-40 billion. It is clear that such an exorbitant amount cannot be mobilized from public resources. Both parts of the state will have to tap private sector resources and foreign assistance.

A sector-by-sector financial plan should first be developed with the help of technical experts dealing with various facets of the program. Subsequently, the plan could be floated to seek investor interest. At an advanced stage, feasibilities for various identified projects could be carried out. Various multilateral donor agencies could then be lured to provide low interest loans, which are common for post-conflict economies. In the case of bilateral assistance, maximum amount of grants should be sought. Each agency could opt for projects that fall within its priority areas. For example, ADB's focus on infrastructure and water and sanitation would lure it to such initiatives. US assistance on the other hand could go into health and education.

The multilateral IFIs and bilateral donors would also have to play a role as underwriters of certain developments that require joint collaboration between the two parts of the state. Arguably, concluding the terms and conditions of such arrangements would be extremely tricky and would have to involve not only the Kashmir governments but also authorities from Islamabad and New Delhi. Given that IFIs have historically shied away from controversial projects on either side of the LoC, or ones where international stakes have been high, the only way one could realistically envision a strong commitment from these entities is if Pakistan and India, and Western powers endorse such developments.

Private sector investment will be an equally important pillar of the financing plan. The level of private investment in large part will depend on the extent to which the public sector agrees to give up its monopolies, and the kind of incentives that are offered. As a first step, the World Bank's Foreign Investment Advisory Service could also be requested to conduct a detailed investment climate survey of the region.⁸⁶ As for financing, the Kashmiri diaspora could prove to be a major resource bank. Expatriate investors could be targeted to involve themselves in sectors of their interest. Admittedly, the terms of the investment would have to be fairly liberal given that Kashmir's economy on both sides has been in disarray for a considerable number of years making most investment avenues 'high risk'. One other option would be to float international bonds, say the "Kashmir bonds" to raise resources.⁸⁷

lem. Kashmiri academics placed in institutions and think tanks within or outside Jammu Kashmir must come together to identify key areas for research and conduct joint projects. Given the transient nature of most academic affiliations today, it is relatively simple to engage Kashmiri academics through neutral affiliations thus bypassing any potential objections from Islamabad and New Delhi. Given the global attention on Kashmir, funding for such initiatives is available in abundance.

Enhanced interaction between peoples from both sides of the LoC should also extend to community based organizations, institutional actors, de-politicized community leaders, social workers and business community members. Civil society organizations could also encourage religious, social, civic and youth leaders to conduct advocacy campaigns to promote harmony among various adversarial viewpoints in Jammu Kashmir. With regard to business interaction, the Azad Kashmir Chamber of Commerce and its counterpart in Indian Kashmir should arrange delegations of various sub-committees relevant to inter-Kashmir trade. The business communities, who have an incentive to push specific proposals to enhance business transactions, are sure to take advantage of any scenario under which such interaction is permitted. As for community involvement in civil society movements, grass roots interaction through programs such as the RSP must be extended. An indigenous civil society lobby against human rights violations is also much needed and could be trained by Amnesty International or local Pakistani and Indian human rights activists. This process is already underway in Indian Kashmir.⁹¹

While the above point to only a few of the endless opportunities for civil society in Jammu Kashmir, much of the future of the non-government involvement hinges on the ability of both sides to develop vibrant civil society institutions. Without the right kind of infrastructure and resources, civil society movements are likely to have minimal impact on the ground. Given that civil society in Kashmir would in effect be challenging the traditional official stance, they are likely to be pitted against authorities as they seek to generate momentum. Traditionally, governments in India and Pakistan (and Jammu Kashmir) have welcomed civil society presence

where the latter's agenda complements, or at the very least refrains from challenging, the official stance. The outlook is entirely reversed, however, as soon as civil society organizations step outside the traditional paradigm, which is exactly what a vibrant Kashmiri civil society would have to attempt to do. The point is not to suggest that the civil society's stance should be amenable to the government's. Instead, what is being accentuated is the need for a robust institutional framework underpinning the entire effort. Once this is achieved, generation of innovative ideas and social mobilization resulting from civil society efforts would end up enhancing inter-Kashmir people-to-people contact and perhaps even provide new avenues for resolution of the Kashmir dispute.

The Governance of Cooperation

The success of the entire economic coordination plan outlined in this paper is contingent upon a political consensus in Islamabad and New Delhi to allow both sides of Kashmir to transform into an open market economy. This strikes at the heart of a number of governance issues that would necessarily have to be tackled if our propositions are to be successfully implemented on the ground. For example, any initiative that requires Kashmiris to cross the LoC (border markets, IT students etc) will invoke sensitivities about the travel documents requirement. Moreover, either side could decide not to compromise on the need to conduct thorough security checks, not only to inspect day passes but also to conduct physical security checks. Vehicles carrying commercial goods could also be harassed by security forces. By the same token, intelligence agencies on both sides could easily dampen the spirit of cooperation by tapping people who are proactively involved in cross-LoC activities. Such is the current practice employed by Pakistani and Indian intelligence agencies for respective citizens frequently traveling to the 'other' country. Another concern, especially on the Pakistani side, could be with regard to the Rules of Origin even if the SAFTA guidelines are used. The proposed free trade zone would also have multiple governance concerns. The precise nature of regulatory frameworks could be an especially thorny issue. Both sides could also limit gains from the economic

What is required is to spread the civil society movements in Pakistan and India to Jammu Kashmir. Then, as civil societies in the state engage with their counterparts from Pakistan and India, and thus grow in stature, energies could be channeled such that a cross-LoC vibrant peace constituency develops.

The success of the entire economic coordination plan outlined in this paper is contingent upon a political consensus in Islamabad and New Delhi to allow both sides of Kashmir to transform into an open market economy.

transformation by maintaining the present stringent regulations for foreign tourists. Currently foreign tourists in Pakistani Kashmir require an NOC from the Kashmir Home Department.⁹² The requirements are as dissuasive in Indian Kashmir. Moreover, various suggestions amounting to residents from one side placing themselves across the LoC for an extended period of time (student exchanges, master teacher trainers, RSP teams, etc.) are sure to be received cautiously in the initial stages and could only be expected to materialize over the medium term. Overly-aggressive civil society involvement is also sure to raise a few concerns in Islamabad and New Delhi.

The above are only a few examples of the possible governance bottlenecks that either Pakistan or India could create. The point is that extreme political will is necessary to allow the process to continue beyond the initial euphoria. For the suggestions to work, the political consensus among Pakistani and Indian elite would have to be broad based, ensuring civil society involvement while sidelining hardline views seeking to gain political mileage by attempting to undermine the process. Moreover, a conscious decision would have to be made to let loose the traditional tight fisted control maintained by both sides in their respective parts of Kashmir. The Pakistani military would have to accept taking the back seat, notwithstanding strategic concerns that would remain despite positive movements on the economic front. In essence, the mindsets on both sides would have to change.

In tandem with a change in mindsets, Islamabad and New Delhi's formal hold on functioning of Kashmir's governments must be relaxed. Only then can one expect a truly autonomous structure required to ensure economic transformation. While Pakistani Kashmir has its own Head of state, constitution and legislature, the entire government structure remains highly influenced by decision makers in Islamabad.⁹³ The Ministry of Kashmir Affairs and Northern Areas is the Central government's principal representative body dealing with the said areas. There is also the Azad Jammu and Kashmir Council, which follows Islamabad's lead for the most part.⁹⁴ The Northern areas are managed under an equally intrusive regime. These Areas have no declared constitution.⁹⁵ The level of intrusiveness is not much different in Indian Kashmir despite constitutional guarantees to the contrary.⁹⁶ In essence, the governance regime in both these regions remains highly intrusive, with little real autonomy being provided to the local authorities. Such a governance structure is a matter of grave concern for the economic uplift of the state. For any possibility of the cooperation plan to go through, both sides of Kashmir have to be highly autonomous and be allowed to develop an open market economy without any stringent checks and balances from Islamabad and New Delhi.

If such guarantees are provided by the public sector, the transformed economy will inevitably end up being dominated by the private sector. Industrial production and services industries like tourism and IT must be driven by private sector involvement to ensure efficiency. Private sector involvement would also be key in Kashmir's image projection and industrial marketing around the world. There is a substantial role for the private sector in the forest sector. Civil society involvement in the services and social sectors would also be essential. Consequently, the public sector monopolies would have to give way, with the sector's role being limited to one of a loose regulator. Proactive public sector involvement would only be required in sectors where the private sector is not forthcoming. These could include major physical infrastructure development, cross-LoC cooperation in environmental management, and power generation initiatives. The most important function for

UN Monitoring Observer
Group in India-Pakistan
(UN photo # 99349)



the public sector however is to guarantee an investor friendly climate with clearly defined regulatory and legal frameworks, facilitate business processes by reducing bureaucratic red-tape, enhance transparency and accountability in official mechanisms, and most importantly provide clear boundaries for permissible interaction within which governments would refrain from invoking security concerns. All this is only possible if Pakistan and India's current mindset towards Kashmir is overhauled.

Conclusion

After years of failure to reconcile differences on the issue of Jammu Kashmir, Pakistan and India finally seem to have realized the need to allow 'out of the box' thinking on Kashmir. Increasingly, the debate on Kashmir is beginning to focus on bringing normalcy in the lives of citizens and economic development within the state before hunting for a permanent solution. In this paper, we conducted a detailed analysis of the potential for economic development and collaboration across the LoC as a potent approach.

Looking beyond the current euphoria surrounding the question of economic integration, our analysis suggests little potential for trade in goods across the LoC under the current structures of production. A highly exaggerated figure of less than USD 310 million has been arrived at, which is hardly attractive. Moreover, many of the products in which both parts of Kashmir have tradable surpluses are produced indigenously by the other side. In the final outcome, goods trade is likely to be confined to primary products, which tend to create little economic interdependence and fetch much lower prices. However, currently, even the existing potential in goods trade is not being realized. There is a need to explore the possibility of an inter-Kashmir preferential trade arrangement to allow duty free exchange of primary and value added goods. Moreover, border markets could be set up at designated points to act as retail and wholesale hubs. Communication links would also have to be enhanced. While these measures will ensure optimization of the existing potential, increase in trade in goods over the long run is only possible if production capacity is expanded and efficiency of production, especially in the agriculture and crafts industries is raised.

The true potential for economic integration in Jammu Kashmir lies not in trade in goods, but in the numerous possibilities for collaborative investments and joint ventures within each part of Jammu Kashmir as well as across the LoC. The most promising avenues for such collaboration include the transport, tourism, forestry, water, power, IT, education, poverty and disaster management sectors. The recommended approaches vary from sector to sector, with some programs like power generation and forest preservation necessitating an elaborate cross-LoC cooperative framework, while others could be implementable independently in both parts of the state. While we do not recap the specifics of each proposed project here, it is important to note that all plans entail substantial private sector and civil society involvement. The role of the civil society organizations is key in the education and poverty uplift programs. Private sector involvement would be essential in industrial production and services industries like tourism and IT as well as in Kashmir's image projection and industrial marketing around the world. Public private partnerships have been envisioned in the forest sector.

The ultimate objective of taking the economic route is to ensure sufficient integration among economies as well as peoples on both sides of the LoC. Grounding the analysis in the liberal theory of economic interdependence, the argument is that such integration while bringing normalcy to life in Jammu Kashmir would also end up creating a high peace dividend, thus increasing the likelihood of a permanent political resolution of the dispute. Realistically however, the entire set of suggestions forwarded here could end up being mere 'wish lists' unless extreme political will to allow Jammu Kashmir to transform economically is developed in Islamabad and New Delhi. Failing such a change in mindsets, both sides could stall the impetus for economic collaboration by creating countless governance bottlenecks, as they have done to date. The role of the civil society to conduct an advocacy and social mobilization campaign involving all relevant stakeholders is essential in order to buffer against any insecurities that may lead either Pakistan or India to thwart the initiative.

The true potential for economic integration in Jammu Kashmir lies not in trade in goods, but in the numerous possibilities for collaborative investments and joint ventures within each part of Jammu Kashmir as well as across the LoC.

- ¹ Shaheen Rafi Khan, et al., "Regional Trade Agreements in South Asia: Trade and Conflict Linkages", *Sustainable Development Policy Institute* (for the International Development Research Center), forthcoming.
- ² Ibid.
- ³ We have used the term 'Pakistan Kashmir' to refer to the part of Jammu Kashmir under Pakistani control (not including the Pakistani Northern areas, which are mentioned separately wherever appropriate), 'Indian Kashmir' to reflect the part of the state under Indian control, and Jammu Kashmir to represent the entire area on both sides of the LoC, but not including the Pakistani Northern areas.
- ⁴ Muzaffarabad is the capital of Pakistani Kashmir.
- ⁵ For an overview of the geography of Jammu and Kashmir, see Mushtaqur Rahman, *Divided Kashmir: Old Problems, New Opportunities for India, Pakistan, and the Kashmiri People* (Boulder: Lynne Rienner Publishers, 1996).
- ⁶ Ibid.; Faisal Yousaf, "Kashmir: An Array of Options", *Kashmir Institute of International Relations*, April 30, 2004.
- ⁷ Ibid.
- ⁸ Ibid.; Government of India, *Census of India*, 1991.
- ⁹ Ibid.
- ¹⁰ Ibid.
- ¹¹ This option was provided to rulers of all princely states.
- ¹² The Maharaja's decision to accede was made reluctantly, since ideally he was vying for independence for Jammu Kashmir.
- The Muslim rebellion originated in Poonch. For a detailed discussion of the rebellion and its role in the Maharaja's decision to accede, see Victoria Schofield, *Kashmir in Conflict: India, Pakistan and the Unending War* (London: I.B. Tauris, 2003).
- ¹³ Ijaz Hussain, *Kashmir Dispute: An International Law Perspective* (Islamabad: Quaid-i-Azam University, 1998).
- ¹⁴ According to the partition guidelines, Muslim majority areas were to go to Pakistan and Hindu majority areas were to join India, provided they were geographically contiguous with the respective countries. In 1947, the year of partition of British India, 78 percent of Jammu and Kashmir's population was Muslim. Furthermore, the state was geographically contiguous with present day Pakistan. Its imports and exports flowed through present day Pakistan. Its only road and rail links were also through Rawalpindi and Sialkot respectively. Furthermore, its postal and telegraphic services were also catered through Pakistan. Therefore, Pakistan felt a moral right over Jammu Kashmir. Hussain, 1998.
- ¹⁵ Schofield, 2003.
- ¹⁶ For details of the Indian complaint and subsequent U.N. proceedings, see Hussain, 1998.
- ¹⁷ Pakistan initially denied active involvement in the 1999 conflict, which took place in the Kargil region of Kashmir. It maintained that the attack on Indian posts in Kargil was conducted by insurgents.
- ¹⁸ Randeep Ramesh, "India Announces Troop Reduction in Kashmir," *Guardian Unlimited*, November 12, 2004, <<http://www.guardian.co.uk/kashmir/Story/0,2763,1349631,00.html>>.
- ¹⁹ Celeste Le Roux, "Strengthening Cooperation Across the Line of Control: Assessment of Areas for Further Inspection", *Pugwash Conferences on Science and World Affairs*, concept note, July 21, 2006; V. Mohan Narayan, "Bus to Muzaffarabad from April 7", *Rediff News*, February 16, 2005, <<http://in.rediff.com/nws/2005/feb/16bus1.htm>>; Mubarak Zeb Khan, "Pakistan and India to Allow Trading of Raw Products Only", *Dawn*, May 31, 2006.
- ²⁰ Shankar Aiyar, "The Nation: Kashmir Economy", *India Today*, October 14, 2002.
- ²¹ Government of Azad Jammu & Kashmir, "State Profile: Introduction", official website, <http://www.ajk.gov.pk/site/index.php?option=com_content&task=view&id=2257&Itemid=144>.
- ²² Ibid.
- ²³ Ibid.
- ²⁴ Government of Pakistan, "Northern Areas of Pakistan: Profile", Planning & Development Department, Northern Areas, Gilgit, <http://mail.comsats.net.pk/~sfpd/area_and_population.htm>.
- ²⁵ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ²⁶ Government of Pakistan, "Northern Areas of Pakistan".
- ²⁷ Government of India, "Jammu & Kashmir Development Report"; Executive Summary, Planning Commission, undated, <http://planningcommission.nic.in/plans/stateplan/sdr_jandk/sdr_jkexecutive.pdf>.
- ²⁸ Shahid Javed Burki, "Tapping Kashmir's Economic Potential", *Dawn*, July 29, 2005.
- ²⁹ Ibid.
- ³⁰ Shaheen Rafi Khan, et al., "Quantifying Informal Trade between Pakistan and India", *Sustainable Development Policy Institute*, Research paper, 2006.
- ³¹ Various studies have forecasted these items as constituting the bulk of inter-Kashmir trade.
- ³² See for example, Teresita C. Shaffer, "Kashmir: The Economics of Peace Building", *Center for Strategic and International Studies, South Asia Program* (with the Kashmir Study Group), December 2005.
- ³³ Le Roux, 2006.
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ Ibid.
- ³⁷ Currently, the entire fixed telecommunication network in Pakistani Kashmir is managed by a single public entity, the Special Communications Organization influenced by the Pakistan military.
- ³⁸ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ³⁹ Federation of Indian Chamber of Commerce and Industry, "Horticulture, Handicrafts & Handlooms, Tourism, IT and Biotech: FICCI Makes Focused Sector-wise Suggestions to Boost Investments in J&K", press release, May 19, 2006, <<http://www.ficci.com/press/86/jk.DOC>>.
- ⁴⁰ The idea of urbanization has been floated by renowned Pakistani economist, Shahid Javed Burki in the context of post-earthquake rehabilitation of Pakistani Kashmir. See Shahid Javed Burki, "Rebuilding Azad Kashmir", *Pakistan Link*, December 25, 2006, <<http://www.pakistanlink.com/Commentary/2005/Dec05/30/02.HTM>>.
- ⁴¹ For an overview of the reconstruction plans, visit the website for the Earthquake Reconstruction and Rehabilitation Authority (ERRA), <<http://www.erra.gov.pk>>.
- ⁴² Rodrigue Jean-Paul, "Transport and Economic Development" in *Transport Geography on the Web* (Hofstra University, 1998).
- ⁴³ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ⁴⁴ Ibid.
- ⁴⁵ World Bank, Project Appraisal Document for the Highways Rehabilitation Project,

- Energy and Infrastructure Sector Unit, Report No. 27281-PAK, 2003.
- ⁴⁶ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ⁴⁷ Government of India, undated.
- ⁴⁸ Schaffer, 2005.
- ⁴⁹ Burki, "Tapping Kashmir's", 2005.
- ⁵⁰ Ibid.
- ⁵¹ Ibid.
- ⁵² The plan to extend the KKH to establish a direct link with Central Asian states has been on the table for some time. Pakistan, China and Uzbekistan signed an agreement as far back as 1995 to establish a land route to connect the Central Asian States via Gilgit. However, the proposal has not materialized thus far. "Plan Shelved to Extend KKH to Central Asia", *Dawn*, March 232, 2003.
- ⁵³ "Northern Areas (Pakistan), Wikipedia (online), <http://en.wikipedia.org/wiki/Northern_Areas_Pakistan> (accessed on December 20, 2006).
- ⁵⁴ Burki, "Tapping Kashmir's", 2005.
- ⁵⁵ A similar idea has been floated in Schaffer, 2005.
- ⁵⁶ Le Roux, 2006.
- ⁵⁷ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ⁵⁸ A number of capacity constraints and management issues have also not allowed the wood based industry to grow. See Wajahat Habibullah, "The Political Economy of the Kashmir Conflict: Opportunities for Economic Peacebuilding and for U.S. Policy", *United States Institute of Peace*, Special Report 121, June 2004.
- ⁵⁹ Moeed Yusuf, "Forest Management in Pakistan: A Legal and Institutional Analysis", *South Asian Network for Development and Environmental Economics*, working paper, forthcoming (2007); Vishakha Maskey, et al., "A Survey Analysis of Participation in a Community Forest Management in Nepal", Research Paper 2003-8, selected for presentation at the Northeastern Agricultural Resource Economics Association, Portsmouth, New Hampshire, June 8-10, 2003.
- ⁶⁰ Shaheen Rafi Khan, et al., The Quest for Sustainable Forest Management: Exploring Public-Private Partnerships in the Forestry Sector in Pakistan". *Sustainable Development Policy Institute for Sungi Foundation*, forthcoming.
- ⁶¹ Sungi Development Foundation has taken the lead on introducing public-private partnerships in Pakistan. Consultative workshops have been held in all four provinces of Pakistan and a national workshop is planned for March 2007.
- The author is involved in the policy formulation process in this regard.
- ⁶² The Chinese example could be followed in this regard. Heilongjiang Province, China invested in a major reforestation project after a massive fire had destroyed most of the forest cover in the area. Tree nurseries were established and the government provided saplings of varieties suited for the environment. See Burki, "Rebuilding Azad", 2006.
- ⁶³ Most major water bodies in Indian Kashmir are severely polluted. Dal Lake, which benefits from water from these tributaries was once a major tourist attraction, but presently is suffering from high levels of water pollution. See American University, "Kashmir Deforestation" Trade Environment Database (TED) Projects, Case Study, Case No. 365, <<http://www.american.edu/projects/mandala/TED/kashmir.htm>>. Also see, Habibullah, 2004.
- ⁶⁴ Habibullah, 2004.
- ⁶⁵ Le Roux, 2006.
- ⁶⁶ Schaffer, 2005.
- ⁶⁷ Habibullah, 2004.
- ⁶⁸ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ⁶⁹ Ibid.
- ⁷⁰ Shahid Javed Burki, "Kashmir: The Economic Option", *Dawn*, July 19, 2005.
- ⁷¹ Ibid.
- ⁷² Ibid.
- ⁷³ Le Roux, 2006.
- ⁷⁴ Federation of Indian Chamber of Commerce and Industry, 2006.
- ⁷⁵ Ibid.
- ⁷⁶ Government of Azad Jammu & Kashmir, "Departments: Business Rules", official website, <http://www.ajk.gov.pk/site/index.php?option=com_content&task=section&id=26&Itemid=94>.
- ⁷⁷ Government of Azad Jammu & Kashmir, "State Profile: Introduction".
- ⁷⁸ World Bank, Staff Appraisal Report Pakistan Northern Education Project, South Asia Region, Report No. 15830-PAK, 1997.
- ⁷⁹ World Bank, Implementation Completion Report on a Credit to the Islamic Republic of Pakistan for a Northern Education Project, Report No. 28241-PK, 2004.
- ⁸⁰ This is already widely practiced in Pakistan. Even in the Northern areas and Pakistani Kashmir, a number of NGOs have taken initiatives related to Teacher Professional Development. See for example, Aga Khan Education Service, Pakistan, "Northern Pakistan Education Programme- EC Funded: Fact At a Glance", May 31, 2006.
- ⁸¹ Shoaib Sultan Khan, "Poverty Reduction Strategy: Rural Support Programmes of Pakistan", Presentation made at a conference: *South Africa and Pakistan: Growing Trade, Building Security*, South African Institute for International Affairs, November 8, 2006.
- ⁸² A. Dastgeer, "Targeting the Poor: The RSPs Way", Rural Support Programmes Network, undated; Mahmood Hasan Khan, Methods of Assessment of Rural Poverty Projects and Program Impact: Handbook for Practitioners in Rural Support Programs (Islamabad: Rural Support Programs Network, 2004).
- ⁸³ Burki, "Rebuilding Azad", 2006.
- ⁸⁴ Michael Renner, "Peacemaking in Kashmir: From Physical Tremor to Political Earthquake?", *World Watch Institute*, Global Security Brief No.8, December 6, 2005.
- ⁸⁵ Shahid Javed Burki, "Taking the Development Route", *Dawn*, August 2, 2006.
- ⁸⁶ Habibullah, 2004.
- ⁸⁷ Shahid Javed Burki initially suggested a similar idea in the context of reconstruction of Pakistan Kashmir. See Burki, "Rebuilding Azad", 2006.
- ⁸⁸ Praful Bidwai, "No Peace Without Civil Society", *Frontline*, Volume 21, Issue 18, August 28-September 10, 2004.
- ⁸⁹ A number of renowned Pakistani journalists were included in the delegation to Indian Kashmir. Kashmir: 18 Journalists to Visit Held Kashmir, New Delhi", *Dawn*, September 29, 2004.
- ⁹⁰ SAFMA already hosts Kashmiri journalists as parts of South Asian delegations.
- ⁹¹ Jammu & Kashmir Coalition of Civil Society, "Role of Civil Society in Kashmir", undated, <<http://www.jkccs.org/main%20links/Role%20of%20Civil%20Society%20in%20Kashmir.html>>.
- ⁹² Government of Azad Jammu & Kashmir, "History of Azad Jammu and Kashmir and Other Information", official website, <<http://www.ajk.gov.pk/tourism/facts.html>>.
- ⁹³ International Crisis Group, "India/Pakistan Relations and Kashmir: Steps Towards Peace", Report No.79, Islamabad, New Delhi, Brussels, June 24, 2004.
- ⁹⁴ Ibid.
- ⁹⁵ Ibid.
- ⁹⁶ The Indian constitution's article 370 guarantees 'special status' and high degree of autonomy to Indian Kashmir, which has not been forthcoming in reality.

Rome Office

Accademia Nazionale
dei Lincei

via della Lungara, 10

I-00165 ROME, Italy

Phone: **39-06-6872606

Fax: **39-06-6878376

E-mail: pugwash@iol.it

London Office

Flat A Museum Mansions

63A Great Russell Street

LONDON WC1B 3BJ, England

Phone: **44-20-7405-6661

Fax: **44-20-7831-5651

E-mail: pugwash@mac.com

Geneva Office

16 rue de la Voie-Creuse

1211 GENEVA, Switzerland

Phone: **41-22-919-7920

Fax: **41-22-919-7925

E-mail: pugwash@gcsp.ch

PUGWASH CONFERENCES ON SCIENCE AND WORLD AFFAIRS

Nobel Peace Prize 1995

In 1995, the Pugwash Conferences and one of its co-founders, the physicist Sir Joseph Rotblat, shared the Nobel Peace Prize in recognition of their decades-long work to reduce the threat of nuclear war and ultimately abolish nuclear and other weapons of mass destruction. Beginning with its first international conference in Pugwash, Nova Scotia in 1957, the Pugwash Conferences have brought together influential scientists, scholars and public figures concerned with reducing the danger of armed conflict and seeking cooperative solutions for global problems.

Today, there are more than 50 national Pugwash groups around the world, and four offices in Rome, London, Geneva, and Washington, DC. The current

President of Pugwash is Prof. M.S. Swaminathan of India; the Secretary General is Prof. Paolo Cotta-Ramusino of Italy; the Executive Director is Dr. Jeffrey Boutwell of the US; and the Chair of the Pugwash Council is Prof. Marie Muller of South Africa.

Inspired by the Russell-Einstein Manifesto of 1955, and founded on the principle of the individual responsibility of scientists for their work, the Pugwash Conferences have worked for the past 50 years toward the twin goals of abolishing nuclear weapons and the peaceful settlement of international disputes. The emerging challenges in science, technology and international politics of the 21st century make those principles and goals more relevant than ever.

Pugwash

Conferences on Science and World Affairs

1111 19th Street, NW

Washington, DC 20036 USA

Phone: **1-202-478-3440

Fax: **1-202-238-9604

Email: pugwashdc@aol.com

Web: www.pugwash.org