INDIA, PAKISTAN AND WATER

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Introductory

I am very grateful to Dr. Maria Saleth and Prof. Janakarajan for inviting me to give a talk at MIDS and providing me with an opportunity to meet all of you.

The theme of my lecture today is 'India, Pakistan and Water'. I have spoken and written about this subject or part of it at various places, and have written extensively in newspapers and journals, apart from my books. I request those in this audience who have heard or read me before on this subject to bear with me.

When we talk about the water relations between India and Pakistan, we have essentially the Indus system in mind. That is the only river system common to the two countries, and it is very important to Pakistan because 80% of that country falls within the Indus basin. Water-sharing on the Indus River between India and Pakistan stands settled by the Indus Waters Treaty 1960. However, the operation of the Treaty has been characterised by an unending series of disagreements. How and why do these arise and why do they tend to become intractable? The Arbitration Clause in the Treaty has been invoked twice, once over the Baglihar Project and again over the Kishenganga Project. The first case has been settled by a Neutral Expert, but dissatisfaction continues in Pakistan. The second case is before a Court of Arbitration. What is the nature of the differences in these cases? Having regard to the experience of the last 50 years, should the Treaty be considered a success or a failure? Should it be re-negotiated? Given the existence of a

Treaty and of institutional arrangements for dealing with the problems that might arise during its operation, why has Pakistan in the last year or two raised water as a major issue between the two countries and given it an importance equal to if not higher than the Kashmir issue? Is it not possible to deal with Pakistan's concerns through the mechanism of the Indus Waters Treaty? Is there scope in the Treaty for larger and wider cooperation? Why is there an acute sense of anxiety over water in Pakistan, why does Pakistan tend to blame India in this context, and what (if anything) can India do about it? These questions are explored in this lecture.

Indus Waters Treaty 1960: Background

In 1947 the line of Partition of the Indian sub-continent cut across the Indus river system, leading to the division of well-established and extensive irrigation systems, with the headworks of the irrigation waters remaining in the Indian part and the irrigation systems using those waters going to the newly created Pakistan. There was no immediate problem because the canal waters continued to flow as before from the headworks in India to the irrigation systems in Pakistan under a Standstill Agreement of 1947 which kept the pre-partition arrangements going temporarily, but on 1 April 1948 when the Standstill agreement came to an end, the Indian province of Punjab promptly stopped the supply causing difficulty, dismay and a sense of insecurity in Pakistan. When Nehru came to know of this, he intervened and restored the supply, but the interruption had lasted for about a month. I am mentioning this old episode because the sense of insecurity and vulnerability that this interruption caused in Pakistan as a lower riparian became a permanent part of the Pakistani psyche, and continues to influence thinking even today.

Soon after that episode negotiations on the sharing of Indus waters began. An initial suggestion by David Lilienthal of TVA fame that the entire Indus system should be jointly managed in an integrated manner had little chance of acceptance, given the bitterness of Partition and the mutual hostility of the two newly formed countries. Prolonged talks between the two Governments, assisted by the good offices of the World Bank, and the consideration of several proposals, led eventually to the signing of the Indus Waters Treaty in 1960.

Treaty in Outline

The water-sharing under the Treaty (ignoring the details contained in the Annexes and Appendices) was quite simple: the three western rivers (the Jhelum, the Chenab and the Indus itself) were allocated to Pakistan, and the three eastern rivers (the Ravi, the Beas and the Sutlej) were allocated to India. However, on the western rivers India was allowed some limited uses (agriculture, drinking water, non-consumptive uses, hydro-electric power generation, etc) subject to fairly severe restrictions and conditions. India was not allowed to build storages on the western rivers, except to a very limited extent as mentioned in the Treaty; and even run-of-the-river hydro-electric projects had to conform to certain technical stipulations. There were also provisions regarding the exchange of data on project operation, extent of irrigated agriculture, and so on.

The Treaty further mandated certain institutional arrangements: there was to be a permanent Indus Commission consisting of a Commissioner each for India and for Pakistan, and there were to be periodical meetings and exchanges of visits.

Provisions were included for the resolution of the disagreements that might arise. These issues (or 'questions' in the language of the Treaty) were to be resolved within the Commission; if agreement could not be reached at the Commission level, the 'questions' would become either 'differences' or a 'dispute' for arbitration. The Treaty provided for two kinds of arbitration. Differences, essentially of a technical nature, were to be referred to a Neutral Expert. The kinds of differences that

could be referred to a Neutral Expert were specified in the Treaty. The Neutral Expert's findings on the differences referred to him would be final and binding. Issues going beyond the technical and involving major principles or interpretations of the Treaty were 'disputes'. (A difference referred to a Neutral Expert could also become a dispute, if the NE decided that a point referred to him was in fact not a difference but a 'dispute'.) A dispute would have to go to a Court of Arbitration.

The Treaty also included the provision of international financial assistance to Pakistan for the development of irrigation works for utilising the waters allocated to it, and India too paid a sum of £ 62.06 million as laid down in the Treaty.

Prevailing views of the Treaty

Internationally, the Indus Waters Treaty 1960 is regarded as a successful instance of conflict–resolution between two countries that have otherwise been locked in conflict. It is customary to draw attention to the fact that the Treaty has remained in place despite three wars between India and Pakistan. It even survived the serious deterioration in the relations between the two countries following Kargil.

That favourable view of the Treaty has been prevalent to some extent in India and Pakistan as well, but there is also a measure of dissatisfaction with the Treaty in both countries. There is a body of opinion that the division of waters under the Treaty was unfair, but the unfairness alleged in one country is the exact opposite of that alleged in the other country. The allocation of the three western rivers to Pakistan and of the three eastern rivers to India meant that out of the total flow of 168 cusec in the system, 135 cusec (roughly 80%) became Pakistan's share and 33 cusec (20%) India's. Indian opinion in general is that this is very unfair to India. In Pakistan, the allocation of 20% to India is regarded as excessive, having regard to the level of past use of Indus waters by the area that went to India under Partition. The arguments on

both sides are fallacious, but there is no need to go into them. When prolonged inter-country negotiations by teams acting under governmental briefings lead to a Treaty, and the Treaty is approved and signed at the highest levels, it must be presumed that it was the best outcome that could have been negotiated under the given circumstances; either side is then precluded from saying that it was unfair, unequal, poorly negotiated, etc.

A more important criticism of the Treaty is that it carried out a surgery on the river-system, dividing it into two segments, one for Pakistan and one for India. It can be argued that dividing the river-system into two segments was not the best thing to do, and that the better course would have been for the two countries jointly to manage the entire system in an integrated and holistic manner. However, given the circumstances of Partition and the difficult relationship between the two newly formed countries, it would have been naïve to expect that such a joint integrated cooperative approach would work. If the best course is unavailable, then we have to settle for the second best; that is what the Treaty represents.

Why do differences arise?

We now come to the crucial question: if the water-sharing has been settled, how do differences arise? The answer is that the differences are not about water-sharing, but about certain design and engineering features of Indian projects on the western rivers.

The Treaty allocates the eastern rivers (Ravi, Beas and Sutlej) to India and the western rivers (the Jhelum, the Chenab and the Indus itself) to Pakistan, but it allows India a limited use of the waters of the western rivers, including the generation of hydro-electric power, subject to certain fairly stringent technical conditions and stipulations, intended to take care of Pakistan's concerns as the lower riparian in the Indus

system. Broadly, and without going into detail, the Treaty requires India to

- let the waters of the western rivers flow to Pakistan without interference, any variations (within a permitted range) for turbine operations being made up within a stated period;
- refrain from creating any storage on the western rivers (except to a limited extent as specified in the Annexures to the Treaty);
- keep 'pondage' for turbine operations within a specified limit;
- design the projects in such a way that the water level cannot be raised artificially above the permitted level;
- locate gated spillways (if they are considered necessary) and the water-intake at the highest level consistent with sound and economical design and satisfactory construction and operation;
- place no outlets below the dead storage level, unless sediment control or other technical considerations necessitate this; and so on.

Taken together, these conditions and stipulations protect Pakistan from both a reduction of flows and deliberate flooding by Indian action.

Now it will be clear how differences arise under the Treaty. They arise over the question whether in a given case the above-mentioned conditions have been complied with or not. The technical divergences between the two sides were doubtless rendered more intractable by the bad political relationship between the two countries over a long period, but the likelihood of differences was inherent in the nature of the Treaty. The density of technical detail in the Annexures and Appendices to the Treaty provides ample opportunities for differences among engineers.

Further, the Treaty is both *permissive* and *restrictive* towards Indian projects - particularly big projects - on the western rivers. India tries to use the *permissive* provisions to the full whereas Pakistan tries to apply the *restrictive* provisions stringently. The two countries are thus

pulling in two opposite directions. This leads to a permanent tug of war in the Indus Commission. The argument about each project goes on endlessly. Thus, though the Treaty did resolve the water-sharing issue, it created a potentially adversarial situation in relation to the Indian use of the western rivers.

Lower riparian anxiety

Under the engineering differences lies a deeper factor. As the lower riparian on the Indus system, Pakistan tends to look with anxious eyes at any attempts by India to build structures on the western rivers. Structures give control, and Pakistan is reluctant to agree to India acquiring a measure of control over rivers that stand allocated to Pakistan. It is apprehensive of the structures in question enabling India either to reduce water-flows or to release stored waters and cause floods. Its objections are thus partly water-related and partly security-related. A military view of Indian structures on the rivers, of which General Musharraf was a strong exponent, complicates the water relations. The Indian position is that the security fears are misconceived as India cannot flood Pakistan without flooding itself first; that its capacity to reduce flows to Pakistan is very limited; and that the record of the last half-century gives no basis for any such apprehensions.

Besides, the only circumstance in which Pakistan can be completely free from anxiety would be the total absence of any structures in India on the western rivers; but that is not what the Treaty says. It permits such structures, subject to conditions that would take care of Pakistani concerns. Pakistan did accept the permissive provisions and signed the Treaty, and India of course accepted the restrictive provisions. It follows that what Pakistan can ask for is conformity to the Treaty: that would give Pakistan the protection that it seeks. The fact of the matter is that Pakistan is fundamentally unreconciled to the very idea of Indian projects on the western rivers.

Political dimension

An important political dimension to these differences is that the projects are located in Jammu and Kashmir. Pakistan can hardly be enthusiastic about facilitating projects which are in what it regards as disputed territory, and for the benefits of which the credit would go to India. Hence the stalemate. Pakistan did at one stage let one project, namely Salal, proceed under certain conditions; that has not happened in the case of other projects, for whatever reason.

Why did India sign the Treaty?

The crux of the matter is that under the Treaty the western rivers are for Pakistan. India has only limited rights on those rivers and cannot undertake projects on them without providing all the details to Pakistan and dealing with Pakistan's objections. Why did India put itself in that position? The answer is that if Pakistan got the near-exclusive allocation of the three western rivers, India for its part got exclusive rights to the eastern rivers. This was important for India. If the Ravi, Beas and Sutlej had not been exclusively allocated to India, Pakistan would have had the usual lower-riparian rights over these rivers, and would have had to be consulted about the Bhakra Nangal and Rajasthan Canal projects; and Pakistan would surely have raised objections. The projects might not have come up at all, or might have had to be substantially smaller. In a sense, one might say that the allocation of the eastern rivers to India under the Indus Treaty removed Pakistan from the picture in relation to these rivers, and facilitated the implementation of the Bhakra-Nangal and Rajasthan Canal Projects. The price paid for this was the acceptance of limited rights over the western rivers. The difficulties that this would lead to in due course, and the discontent that this would cause in J & K, were perhaps not fully anticipated.

Dissatisfaction in J&K

The dissatisfaction in J&K is indeed very strong. There is a widespread feeling that while negotiating the Treaty with Pakistan, India failed to keep the interests of J&K in mind. At one stage the J&K Assembly even passed a resolution demanding the scrapping of the Treaty. While one must take note of the negative feeling about the Treaty in J&K, it is not really warranted. Indian negotiators did not ignore J&K's interests. The water-sharing by itself is only a small part of the Treaty. The bulk of the Treaty - the large and dense annexures and appendices - is about Indian projects on the western rivers, both storage and run-of-the-river. All those projects will be in J&K. Therefore, the substantial part of the negotiation was about projects to be located in J&K. How then can J&K say that its interests were ignored? What else was the negotiation about? The sense of grievance in J&K seems uncalled for.

Should the Treaty be re-negotiated?

Where do we go from here? Abrogation of the Treaty, occasionally advocated by some, does not merit serious discussion. Apart from the fact that by doing so India would incur strong international disapproval, it is not clear what India would gain by that course of action. In the absence of the Treaty, India might gain some leeway in regard to projects on the western rivers, but not absolute freedom; there would still be the requirement under international law that the lower riparian should be informed and consulted about interventions, and that significant injury should not be caused to it. On the other hand, India's exclusive rights on the eastern rivers would disappear, and Pakistan's rights as a lower riparian would be revived.

If abrogation is ruled out, should there be a re-negotiation of the Treaty, as often urged in both countries? In any re-negotiation, both Pakistan and India would try to improve their respective positions under the Treaty, and it is difficult to envisage an outcome that would be better

than before from the points of view of both countries. The best course would perhaps be to leave things as they are, and hope that with improving political relations a more reasonable and constructive spirit will prevail in the future than in the past. That applies to both sides. This may appear to be platitudinous counsel, but given the complexities involved, nothing better seems available.

Can we, using the Indus Treaty as the basis, entertain visions of constructive India-Pakistan cooperation over the Indus? I doubt it. The Indus Treaty 1960 is essentially a partitioning treaty. The land was partitioned in 1947, and the waters were partitioned in 1960. How can we build cooperation on that basis? Article VII talks about 'Future Cooperation', but it is at odds with the rest of the Treaty. The Treaty is basically about a division; two isolated sentences in Article VII about 'cooperation' and about 'undertaking engineering works' cannot change the entire nature of the Treaty. Perhaps when an understanding has been reached on the Kashmir issue, and relations between India and Pakistan have ceased to be adversarial, we can think of a better Treaty on the Indus in replacement of the existing one; for the time being, it might be wiser to leave the existing Treaty as it is, and try to bring about a somewhat more constructive approach to its working.

Arbitration: Baglihar

Let us now take a brief look at two cases in which the arbitration clause of the Treaty has been invoked: Baglihar and Kishenganga. In the case of the Baglihar Project, the differences stand arbitrated by the Neutral Expert appointed in terms of the Treaty. The differences were about certain technical and engineering issues such as the design of the project, the need for and placement of the spillway gates, the placement of the water intake, the capacity of the pondage, etc. Based on its objections, Pakistan held the Project to be in violation of the Treaty. India denied the charge and gave its responses to the various points raised by

Pakistan. The Neutral Expert's findings, given in February 2007, did not uphold Pakistan's serious and fundamental objections, but recommended some design changes of a relatively minor nature. Let me explain this briefly with a table:

Point of	As	Pakistan's	NE's	Reasons
Difference	proposed in	view	Recommendation	
	the project			
Maximum		A lower	Indian estimate	Prudent to
Probable	16500	figure	accepted	accept
flood	cumec			
Spillway	Considered	Necessity	Necessity	Having
gates	necessary;	questioned	accepted	regard to
necessary?	provided			design flood
				and nature
				of terrain
Placement	EL 808 m	Not at the	Placement	For
of the		highest	accepted. (Could	sediment
spillway		possible	in fact have been	control and
gates		level;	8m lower)	evacuation
		should be		of the design
		raised		flood;
				international
				practice; and
				the state of
				the art.
Placement	EL 818 m	Not at the	Recommended	
of the water		highest	raising by 3 m	
intake		possible		
		level; raise.		
Capacity of	37.7 mcm	6.22 mcm	32.5 mcm	

pondage			(Correspondingly	
			dead storage	
			level raised by 1	
			m)	
Freeboard	4.5 m	1.5 m	3 m	
(difference				
between				
maximum				
water level				
and the top				
of the dam)				

Under the Treaty the NE's findings are final and binding, and the differences stand resolved, but there is a great deal of dissatisfaction in Pakistan over the outcome of the arbitration. That dissatisfaction has been reinforced by an article by John Briscoe, formerly of the World Bank and now with Harvard University. The NE is accused of 'reinterpreting' the Treaty and weakening the protection to Pakistan. When Pakistan talks about 'reinterpretation' it has three things in mind. First, in the matter of spillway gates the NE took the view that the 1960 Treaty did not bind India to 1960 technology and that India could use state-ofthe-art technology; it is difficult to see how that view can be questioned. Would any engineer in Pakistan design a dam in 2007 to 1960 technology? Secondly, the NE gave equal importance to the restrictive conditions specified in the Treaty and to techno-economic soundness and satisfactory operation; again, it is difficult to see how this can be objected to, and moreover, the Treaty itself repeatedly qualifies its conditions by the proviso "consistent with sound and economical design and satisfactory construction and operation"; those words cannot be ignored. Thirdly, the NE stressed the importance of periodical flushing of the

reservoir to get rid of sediment. This is what has caused the greatest anxiety to Pakistan because it seemed to weaken the protection against possible flooding. It is difficult to see how an expert engineer could have held that flushing was not necessary and that rapid silting-up must be accepted. However, there is no need to discuss this as the issue has been raised before the Court of Arbitration in the Kishenganga case, which I shall come to shortly.

The Baglihar Project is now in operation, but unfortunately a fresh difference emerged in this case in 2008 over the filling of the newly constructed reservoir. It was Pakistan's charge that in the process of initial filling India reduced the flows in the river in a manner not consistent with the provisions of the Treaty. Pakistani opinion, buttressed by Briscoe's article, accused India of a deliberate violation of the Treaty with the purpose of harming Pakistan. I will not go into the details here, but the fact is that there was indeed a lapse on India's part but it was a very minor one and certainly not a planned one. It was blown up by Pakistan into a huge controversy, but subsequently it was closed at a meeting of the Indus Commission, and has ceased to be an issue. If necessary, we can go into this during the Q&A session.

Arbitration: Kishenganga Project

Let me turn now to the Kishenganga project. The Kishenganga is a tributary of the Jhelum. It originates in the State of J&K, crosses the LoC, runs for some 150 km in PoK, and joins the Jhelum (in PoK). India proposes to build a dam on the Kishenganga shortly before it crosses the LoC, divert a substantial part of the waters of the river through a tunnel to a hydroelectric project (330 MW, i.e., 110 MW x 3) located near Bonar Nala, another tributary of the Jhelum, and then return the diverted waters, after they have passed through the turbines, to the Jhelum via the Wular Lake. In this case, 'differences' over certain technical issues were proposed by Pakistan to be referred to a Neutral Expert as in the

Baglihar Project, but this has not been actively pursued, and we need not go into those differences. However, Pakistan has also raised a 'dispute' to be referred to a Court of Arbitration, and the Court of Arbitration has been established and held a couple of hearings.

The issue before the Court is whether the diversion of waters from one tributary of Jhelum to another is permissible under the Treaty. Art. III (2) of the Treaty requires India to let flow all the western rivers to Pakistan and not permit any interference with those waters, and Art. IV (6) calls for the maintenance of natural channels. If we go by these provisions, the diversion of waters from one tributary to another seems questionable. On the other hand, there is another provision (Ann. D, paragraph 15 (iii)) which specifically envisages water released from a hydroelectric plant located on one tributary of the Jhelum being delivered to another tributary; this seems to permit inter-tributary diversion. The correct understanding of these provisions and the determination of the conformity of the Kishenganga Project to the Treaty is a matter for the Court of Arbitration to decide.

Assuming that diversion from the Kishenganga to another tributary is found permissible, there is a condition attached: the existing agricultural use and use for hydro-electric power generation on the Kishenganga in Pakistan must be protected. There is indeed some existing agricultural use along the Kishenganga (Neelum) in PoK. Pakistan is also planning the Neelum-Jhelum hydroelectric project at a point on the Neelum before it joins the Jhelum. These claims of existing uses are contentious issues between the two countries, with reference to (a) the crucial date for determining 'existing use' and (b) the quantum of existing use.

A second issue that Pakistan has referred to the Court of Arbitration is the legitimacy of drawdown flushing of the reservoir for sediment-control. As I mentioned earlier, the Neutral Expert had recommended this in the Baglihar case. Pakistan was unhappy with that recommendation, but could not challenge it as the NE's findings were final and binding. It is now raising this as a general issue before the Court of Arbitration. Three questions arise:

- (i) Can an issue on which a NE has given a final and binding finding be raised again before another NE or a Court of Arbitration?
- (ii) If the NE's finding is applicable only to the particular project in question and not to others, should we accept the position that there can be substantially different (even contradictory) principles (laid down by different NEs) applying to different projects?
- (iii) If drawdown flushing is ruled out, then must the corollary of heavy siltation and reduction of project life (as in the case of Salal) be accepted as inevitable? If so, does this not amount to ignoring the words "consistent with sound and economical design and satisfactory construction and operation" and again "unless sediment control or other technical considerations necessitate this" in the Treaty?

These questions will no doubt be argued before the Court by the two countries.

A further point of interest in this case is that Pakistan had moved the Court for an order to India to stop work on the project until the completion of the arbitration, and the Court has partly accepted this. It has allowed temporary works to continue, but has stayed work the dam itself.

Water a new 'core issue'?

A new and disturbing development is that water has begun to loom large as a major issue between the two countries. Two years ago, one could have said that there is no water issue because water-sharing on the Indus stands settled by the Indus Treaty 1960, but that argument does not work now. Water has become an 'issue' because Pakistan has made it one. There may be many reasons for this, and we can go into them during the Q&A session, but the important point is that water has the potential of becoming a new 'core issue' of even greater prominence than Kashmir, and calls for urgent attention.

The points that are repeatedly made in Pakistan are the following:

- (1) India is storing or diverting waters to the detriment of Pakistan. (In stronger language this becomes: "India is stealing Pakistan's water". This has not only become a slogan of the jihadists but is often echoed by ordinary people.)
- (2) The water scarcity in Pakistan is caused (or partly caused) by Indian action.
- (3) The flows in the western rivers have diminished over the years, and India, as the upper riparian must bear the responsibility for this.
- (4) India is misusing the provisions of the Indus Treaty. Every Indian project on the western rivers is a violation of the Indus Treaty.
- (5) Even if each project conforms to the provisions of the Treaty, the cumulative impact of the large number of projects that India proposes to construct will be huge and will cause great harm to Pakistan.
- (6) Environmental concerns did not figure at all in the Indus Treaty but must now be taken into account.
- (7) A wholly new development is climate change and the impact that it will have on water. This needs to be discussed between the two countries.

Let me comment very briefly on these points.

(i) Storage/Diversion: So far as one knows, India has not built any storage, not even the 3.6 MAF permitted by the Treaty, nor does it intend to cause harm to Pakistan by diverting Indus waters. In any case, there is such a thing as the Permanent Indus Commission. How can India

store or divert waters to the detriment of Pakistan under the watchful eyes of the Indus Commissioner for Pakistan?

- (ii) Water scarcity in Pakistan: It is clear enough from (i) above that India has nothing to do with this.
- (iii) Reduced flows in the western rivers: Assuming that this is the case, it does not follow that the responsibility for it can be laid on India. What needs to be done is to institute a joint study by Pakistani and Indian experts to establish that there is a declining trend in flows and to ascertain the factors responsible.
- (iv) Violations of the provisions of the Indus Treaty by India; every Indian project a violation of the Treaty: This is simply not true. If there are deviations from the Treaty provisions in any project, they will be questioned by the Indus Commissioner for Pakistan, and the questions may be resolved within the Commission, or become differences or disputes and get referred to arbitration, as in the Baglihar and Kishenganga cases. Where then is the question of violation of the Treaty? (v) Misuse of the Treaty: An article in the Pakistani media some time last year was headed 'Misusing the Indus Treaty'. India might argue that it is only using and not misusing the Treaty, and that it is Pakistan that is misusing the Treaty to block every Indian project on the western rivers. Leaving that aside, the point is that (as I mentioned earlier) Pakistan is fundamentally unreconciled to the permissive provisions of the Treaty that enable India to construct hydroelectric projects on the western rivers.
- (vi) <u>Cumulative impact of many projects</u>: Opinion is divided on the question whether the cumulative impact of a number of projects, each conforming to the provisions of the Treaty, could be greater than the sum of the impacts of individual projects. In Pakistan, people talk loosely about a hundred Indian projects on the western rivers. In fact, it appears that India is planning 33 projects. The concern about the cumulative impacts of these projects needs to be taken seriously and should be

jointly studied, not merely to assuage Pakistani anxiety but also to satisfy ourselves that we are not causing serious ecological damage by constructing so many projects.

(vii) <u>Environmental concerns, Climate Change</u>: These are post-Treaty developments and call for urgent inter-country consultations, not only at the governmental level but also at academic and expert levels.

The above analysis shows that while certain misperceptions need to be dispelled, joint studies are needed on (a) the reported reduction of flows in the western rivers and the factors responsible, and (b) the cumulative impact of a large number of projects on the western rivers. Inter-country consultations and research are also called for on environmental concerns and on the impacts of climate change.

However, that is not enough. Right or wrong, certain misperceptions on water persist and are widespread in Pakistan. This has serious implications for India-Pakistan relations and for peace on the subcontinent. Persistent efforts are needed at both official and non-official levels to remove misperceptions and to reassure the people of Pakistan that their anxieties are uncalled for.

This new 'core issue' (as it is sometimes referred to) waxes and wanes. It loomed very large early in 2010, with widespread concern at the popular level in Pakistan, the intellectuals echoing it in Track II meetings, and the jihadists making it a war cry and threatening bloodshed. There were a few sane voices in Pakistan but they were not very effective. Then for a while the issue became muted because of other matters. It came to the fore again early in 2011, and began to figure in the media and in Track II meetings. Now once again, there is some cooling of the rhetoric. Very recently, there was a report that the Pakistani Water and Power Minister said in a written reply in the National Assembly that Pakistan was getting its due share of waters under the Indus Treaty. Whether this is a serious issue or not seems to

depend on the general state of political relations between the two countries.

Other possibilities of cooperation

Apart from the Indus Treaty, there are other possibilities of cooperation between the two countries: for instance, on timely information-sharing on floods and cooperation on the minimisation of damage; sharing experience and knowledge on the problem of waterlogging and salinity in the Indus basin; and so on. These possibilities have not been adequately explored.

Above all, the imminence, indeed the present reality, of climate change, and its possible impacts on water resources, are matters of urgent concern to all the countries of South Asia. This calls for the closest collaboration among the countries of South Asia at governmental, NGO and civil society levels.