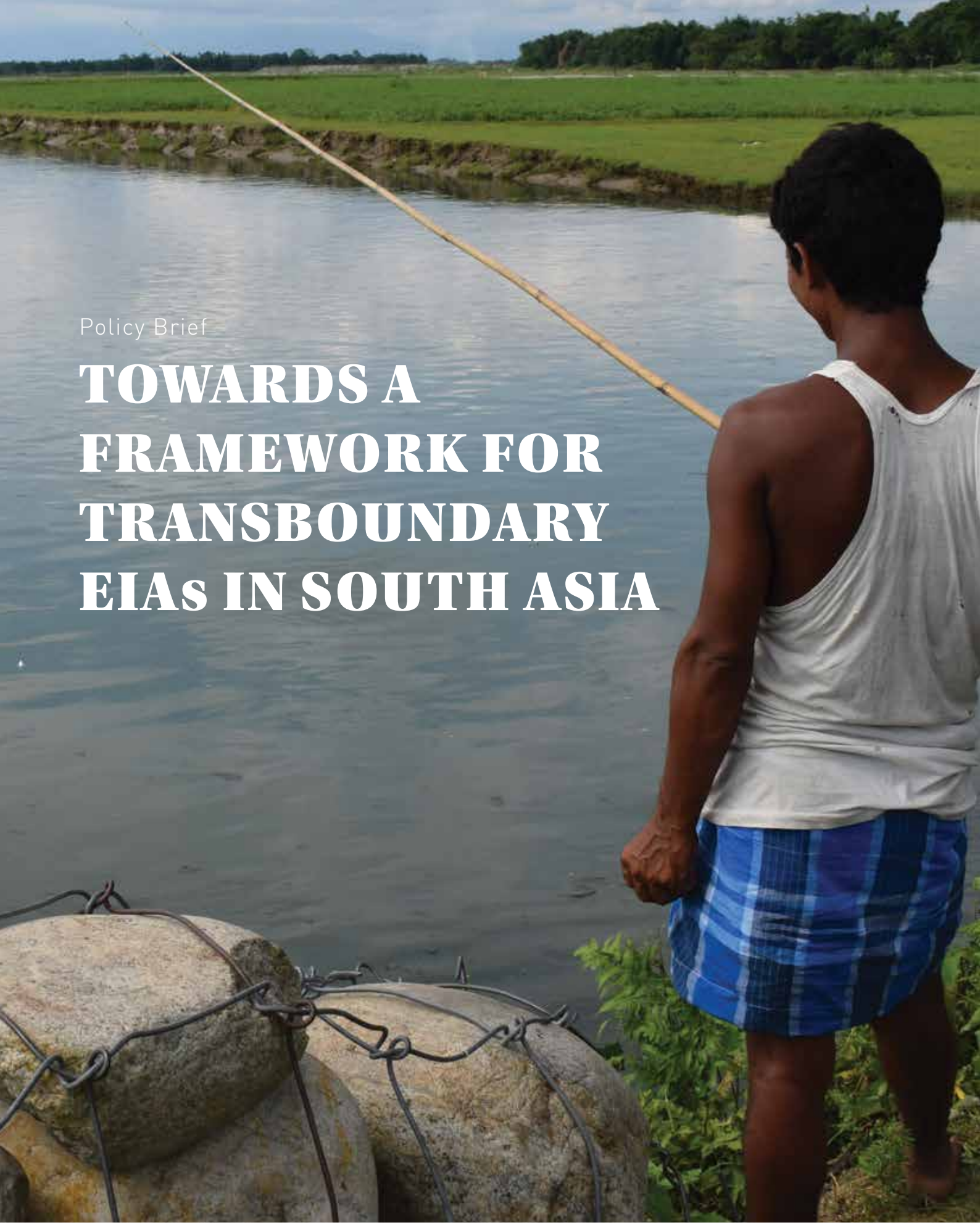

Policy Brief

TOWARDS A FRAMEWORK FOR TRANSBOUNDARY EIAs IN SOUTH ASIA

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About International Rivers

International Rivers protects rivers and defends the rights of communities that depend on them.

We seek a world where healthy rivers and the rights of local river communities are valued and protected. We envision a world where water and energy needs are met without degrading nature or increasing poverty, and where people have the right to participate in decisions that affect their lives.

We are a global organization with regional offices in Asia, Africa and Latin America. We work with river-dependent and dam-affected communities to ensure their voices are heard and their rights are respected. We help to build well-resourced, active networks of civil society groups to demonstrate our collective power and create the change we seek. We undertake independent, investigative research, generating robust data and evidence to inform policies and campaigns. We remain independent and fearless in campaigning to expose and resist destructive projects, while also engaging with all relevant stakeholders to develop a vision that protects rivers and the communities that depend upon them.

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Conventional EIAs focus on impacts within the territorial boundaries of a nation. Given the large number of hydro-engineering structures planned on shared rivers, there is a need to go beyond the existing EIA process and adopt a holistic approach to EIAs that addresses environmental and social concerns beyond the nation's territorial boundaries. Such an approach is not only important to address environmental issues in a holistic manner, but will also serve as an effective tool to resolve conflicts over water sharing.

Environment Impact Assessments, as a tool for environmental decision-making, became part of domestic legislation in most countries after the Rio Declaration of 1992[1] . In India it was introduced in a comprehensive form in 1994.[2] The notification was issued in exercise of powers vested with the central government under the provisions of the Environment (Protection) Act of 1986, which empowers the central government to prohibit and restrict activities for the purpose of improvement of the environment and restrict activities in certain area or areas.[3] In 1994, when the Environment Impact Assessment was first systematically applied, hydropower projects were included in the list of projects which required an EIA to be done. This includes preparation of an EIA report as well as a public hearing for people who are likely to be affected due to the environmental consequences that arise from the proposed project.

Environment Impact Assessments are a part of the precautionary principle. Hydropower, as well as all hydro-engineering structures, has long been viewed as an engineering intervention that has no negative impact on the environment. The judiciary accepted and acknowledged this myth in more than one judgment. In the controversial Narmada judgment[4], it was held that the precautionary principle does not apply to dams. This view has however been discarded by the judiciary in recent years.

It is pertinent to point out that for some of the major multipurpose dams built in India after independence, such as Bhakra Nangal, Tehri Dam and Narmada Dam, no Environment Impact Assessment was conducted. After 1994, all hydropower projects and dams with irrigation potential of more than 10,000 hectares of cultural command area and hydropower projects of more than 25 MW were subjected to Environment Impact Assessments. This has led to the scrutiny of projects from an environmental angle as well as the participation of the public in the decision-making process.

Environment Impact Assessments were revised in 2006 with the introduction of the Environment Impact Assessment Notification, 2006. This replaced the notification of 1994. One of the key features of the new EIA regime was the requirement of projects to undergo the process of screening, scoping, and public consultation as well as appraisal. The Expert Appraisal Committee at the state level for projects below 500 MW, and the Expert Appraisal Committee for Hydropower Projects of more than 500 MW, are required to prepare comprehensive Terms of Reference (TOR) addressing all relevant environmental concerns with respect to the proposed project. The EIA Reports are to be based on a four-season analysis of these.

Despite the fact that public participation as well as impact studies are now mandatory for hydro-engineering structures of a certain specification, there are a range of concerns with respect to the quality of EIA studies, whether the public can participate in the decision-making process, and the extraneous factors which influence the final decision. This has led locals to oppose a large number of hydropower projects on social as well as environmental grounds. The last few years have seen a spurt in both people's movements against dams as well as legal challenges before the National Green Tribunal. One of the important issues before the court has been the downstream impacts of a proposed project as well as the cumulative impacts of a series of projects on a single river or different tributaries of the same river.

Environment Impact Assessment is also legally recognised and accepted in other South Asian countries neighbouring India, including Nepal, Bangladesh and Bhutan. In Bhutan, the government, local governments and the private sector are obliged to guarantee environmental protection through appropriate policies, plans and programs including "environmental assessment"[5] processes.[6] The environmental assessment process is recognised as an integral part of the

1. Principle 17 of the Rio Declaration provides for Environmental Impact Assessment
2. Prior to 1994, Environment Impact Assessment was applied as a tool by the Planning Commission as well as the Department of Environment with respect to some select projects
3. Section 3 of the Environment (Protection) Act, 1986 read with Rule 3 of the Environment (Protection) Rules, 1986
4. Narmada Bachao Andolan v. Union of India & Ors., (2000) 10 SCC 664
5. Section 6.10, Environmental Assessment Act, 2000 defines it as "all procedures required under Bhutanese law to identify means to ensure that the activities of a project are managed in an environmentally sound and sustainable way"
6. Section 14, Environmental Assessment Act, 2000

development planning process and this is ensured through the implementation of a dedicated act to this effect – the Environmental Assessment Act, 2000.[7] The purpose of the Environmental Assessment Act, 2000 is to "establish procedures for the assessment of potential effects of strategic plans, policies, programs and projects on the environment, and for the determination of policies and measures to reduce potential adverse effects and to promote environmental benefit." Citizen participation in environmental decision-making processes and public consultations is also given importance before the issuance of an environmental clearance. [8]

THE SHORTCOMINGS OF EIA PROCESS WITH RESPECT TO RIVER VALLEY PROJECTS

The EIA process in India with respect to river valley projects has some serious shortcomings. One of the main lacunae is the focus on the impact on "upstream area" as opposed to "downstream" impacts. This is despite the fact that the social as well as ecological impacts on downstream areas are widely accepted to be far more significant. The lack of concern about downstream impacts has led to a series of conflicts in India. The major reason for India's interstate water disputes is the lack of concern of the upstream states towards the social and ecological needs of the lower riparian states. The work on the mega hydropower projects such as the Subansari Hydropower Project on the Arunachal Pradesh-Assam border has been stalled for many years, primarily in view of objections from the people affected downstream in Assam.[9] Similar stalling of projects is evident in other projects in the North East, such as the Lower Demwe Hydro Electric Project. Recently, the use of water of the River Mahanadi by the upstream state of Chhattisgarh for various projects involving the abstraction of water has led to public as well as official protest in the state of Orissa.

One of the key reasons for the public opposition to river valley projects in India has been the very narrow parameters within which EIA studies, including public consultations, are conducted. Under India's EIA process, the study only includes a radius of 10 kilometres around a project site. Usually, the dam axis is taken as the central point based on which the radius of 10 km is calculated. In reality, there is nothing in the EIA Notification, 2006 nor any scientific reason for limiting environmental impact studies to a radius of 10 km. Thus the norm of 10 km is unscientific as well as arbitrary. No studies are done beyond this area unless it is specifically recommended by the Expert Appraisal Committee at the time of scoping. Further, complications arise in view of the fact that the public consultation process does not extend to either the impact area or even the study area. Public consultation is limited only to the area where the project activity takes place.

The situation is similar in other countries, including Bangladesh and Nepal. However Bhutan does include downstream of the dam site as a part of its study area to assess impacts of reduced flow, along with the catchment area, submergence area and project area (to be acquired for various appurtenant works – area within 10 km from main project components, i.e. reservoir boundary, dam/barrage/diversion structure, power house, etc.). Further, the extent of the project area can be modified as deemed fit by the National Environment Commission, based on the sensitivity of the project. Bhutan also recognizes that in case of cascade development, the downstream environmental and socio-economic impacts should be evaluated all the way to the dam site of the next downstream project.[10] The importance of cumulative impact assessments, however, is lacking here too.

TRANSBOUNDARY EIA & RIVER VALLEY PROJECTS

River valley projects have impacts beyond the project activity site, that is, beyond the submergence area, the dam axis and the power house. River valley projects, especially those based on peaking power with diurnal flow fluctuations, alter the timing as well as intensity of water

7. Section 29 (e), National Environment Protection Act, 2007
8. Section 86, National Environment Protection Act, 2007
9. Aabhijeet Sharma Vs Union of India and Tula Ram Gogoi Versus Union of India O.A. No. 346/2013/PB/9/EZ
10. Environmental Assessment Guideline for Hydropower Projects in 2010, National Environmental Commission (NEC), Available at: http://www.nec.gov.bt/nec1/wp-content/uploads/2013/11/Hydropower-Guideline-1.pdf

discharged into the river. The sudden increase in the water discharge, followed by a long period of extremely low flow within a span of 24 hours, has serious social as well as ecological impacts. The adverse impacts due to operation of a hydropower project have been noted by the National Green Tribunal.[11]

Despite this acceptance, the existing EIA process in India, with respect to river valley projects, does not take into account impacts beyond a radius of 10 km. However, due to sustained public agitation and movement, the Ministry of Environment, Forest and Climate Change (MoEF&CC) has now stipulated impact due to flow fluctuations at a distance of even 100 km in some instances.[12] However, this is more of an exception than a norm.

SCOPE FOR TRANSBOUNDARY EIA UNDER INDIA'S EIA LAW

The impacts of river valley projects are not confined to the borders of a state or nation. A conventional EIA as it is practiced in India does not consider the environmental impact beyond the territorial boundaries of the state where the project is located, unless any of the components of the project is located in another state. The question as to whether there is scope for transboundary EIA under India's environmental law can be examined only after one examines the approach adopted in India with respect to EIA studies beyond the territorial boundaries of a state.

A bare perusal of the Environment Impact Assessment Notification, 2006 reveals that there is nothing in the notification which prohibits transboundary EIAs. The Expert Appraisal Committee of the MoEF&CC is statutorily empowered to stipulate Terms of Reference (TORs) for conducting the Environment Impact Assessment studies. In fact, in a meeting of the Expert Committee constituted by the MoEF&CC held on 18 May 2006 with the purpose of "examining complex issues related to EIA notification" and the applicability of EIA Notification, 2006 for jetty construction and dredging in rivers and inland waterways development projects, the committee stated that such projects should be appraised as Category A projects and reference (TORs) must be made to issues including transboundary impacts.[13]

The problem arises with respect to conducting a public consultation and/or public hearing. Though a radius of 10 km is taken as the study area for EIA studies, the public hearing process is limited only to the state where the project-related activities are located. This is a serious shortcoming of the EIA Notification, 2006 and needs rectification. In the case of the Polavaram Multipurpose Project in the State of Andhra Pradesh, the MoEF&CC issued a stop work order under Section 5 of the Environment (Protection) Act, 1986, in view of the fact that no public hearing has taken place in the states of Orissa and Chhattisgarh, though significant project-related activities are planned in the states. Despite repeated directions by the MoEF&CC, the public hearings are yet to take place[14]. It is keeping the above background in mind that one has to examine the possibility of transboundary EIA in the South Asian context.

INTERNATIONAL INSTRUMENTS FOR TRANSBOUNDARY IMPACT ASSESSMENT

Given the fact that most rivers in Europe are transboundary rivers, it was only natural that the Espoo Convention (Convention on Environmental Impact Assessment In a Transboundary Context) came into force. The Convention has defined transboundary impacts as any impact, which is not global in nature, occurring within an area under the jurisdiction of a party caused by a proposed activity that has originated wholly or in part within the area under the jurisdiction of another party.[15] The Convention has also put an obligation on the parties to give the public an opportunity to participate in the Environment Impact Assessment procedure for a proposed activity. In the process, the public of the affected

11. Lower Painganga Dharan Virodhi Vs State of Maharashtra Ors., Application No. 13(THC)/2013(wz)
12. The Cumulative Impact Assessment of the Lohit River basin.
13. Office Memorandum dated 19th June 2017 issued by the Ministry of Environment, Forest and Climate Change
14. http://www.business-standard.com/article/current-affairs/odisha-refuses-to-conduct-public-hearing-on-polavaram-project-116091000016_1.html
15. Para 8 of Article 1 of Espoo Convention

country or states must be given equal opportunity as the public of the country or state where the activity is proposed.[16]

The Rio Declaration on Environment and Development 1992 requires parties to carry out an EIA for proposed activities that are likely to have significant adverse impacts on the environment.[17] It further requires the states to provide a prior and timely notification and relevant information to potentially affected states on activities that may have significant adverse transboundary environmental effect and also to consult with those states at an early stage and in good faith.[18]

The need for prior assessment of transboundary impacts was further substantiated by the International Court of Justice's 2010 judgment in Pulp Mills on the River Uruguay[19]. It was the first occasion in which an international court held that prior assessment of transboundary impacts is not merely a treaty-based obligation but a requirement of general international law, even though Uruguay was not a party to the 1991 Espoo Convention on Transboundary EIA. It was also the first case to consider the content of such an EIA. The case arose out of the construction of a wood pulp mill in Uruguay, which was to discharge the effluent into the River Uruguay, which forms the border with Argentina. The International Court of Justice found that:

> *"the obligation to protect and preserve, under Article 41 (a) of the Statute [of the River Uruguay], has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works."* [20]

An effort was made in Southeast Asia to manage transboundary rivers, namely the lower reaches of the Mekong. As far back as 1957, Cambodia, Laos, Thailand and the Republic of Vietnam established the Joint Committee to supervise planning and investigation of water development projects in the Lower Mekong Basin. Later, in 1995, the Mekong River Commission (MRC) was established with a vision to bring about an economically prosperous, socially just and environmentally sound Mekong River Basin, with regional cooperation and basin-wide planning at the heart of its operation. The latest in line is the development of an EIA Manual for Mekong Region by Earth Rights International (ERI) in October 2016, with a focus on six Mekong countries.

While talking about the transboundary rivers of South Asia, the three major bilateral treaties failed to address the environmental impact of river basin activities of the hydro-engineering structures erected over transboundary rivers. The Ganges Treaty of 1996 can be discussed herein. Though the treaty expressed a desire to share water from the Ganges for the generation of hydropower for the mutual benefit of India and Bangladesh, it failed to address the environmental impacts of such a project (if constructed) on the downstream population and aquatic environment.

Along similar lines, The Indus Waters Treaty of 1960 between India and Pakistan strictly restricted the flow in any channels, which cannot be changed on account of any non-consumptive uses by each party.[21] Through this treaty, both India and Pakistan were mandated to maintain the natural channels of the river while undertaking any drainage scheme or activities for conserving soil in order to avoid material damage to either party concerned. The two countries further declared their intention to operate storage dams,

16. Para 6 of Article 2 of Espoo Convention
17. Principle 17 of Rio Declaration on Environment and Development 1992
18. Principle 19 of Rio Declaration on Environment and Development 1992
19. Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010, p. 14
20. Paragraph 204, Developments in International Law of EIA and their Relation to the Espoo Convention by Alan Boyle , Available at: https://www.unece.org/fileadmin/DAM/env/eia/documents/mop5/Seminar_Boyle.pdf
21. Article IV of the Indus Water Treaty

barrages and irrigation canals in such a manner, consistent with the normal operations of its hydraulic systems, so as to avoid, as far as feasible, material damage to the other party.[22] The likely transboundary impacts on the ecology and environment were hardly of any importance.

Negotiated during the 1950s, the Indus Water Treaty could not and does not address issues that have become more serious since, such as over-abstraction and pollution of the groundwater that forms an integral part of the hydrologic system; the growing pollution of river waters; and the cumulative environmental effects of a large number of Indian run-of-the-river hydropower projects on the western rivers which are allowed by the Treaty.[23]

The Mahakali Treaty of 1996 between India and Nepal, though it mandates India must maintain a flow downstream of Sarada Barrage on the Mahakali River to maintain and preserve the river ecosystem,[24] fails to recognize and establish the need for conducting impact assessments for fresh structures on the river. This is quite evident from the design and implementation principle of Pancheshwar Multipurpose Project, to be implemented on a stretch of the Mahakali River, which does not consider the environmental impacts likely to arise from the proposed development.[25] According to Article 7 of the Mahakali Treaty, a party undertakes not to use, obstruct or divert the waters of the Mahakali River in a way that adversely affects its natural flow and level except by an agreement between the parties. However, it did not specify the need for conducting transboundary impact assessments while entering into any such agreement for the obstruction or diversion of water.

PROBLEM WITH ESPOO CONVENTION AS A MODEL FOR SOUTH ASIA

The Espoo Convention is a product of a particular political and economic integration because of the formation of the European Union. An open border, a free trade system and the acceptance of a common currency to a large extent favors nations uniting together to conduct transboundary EIAs. The situation in South Asia is, however, different. The relationship among countries in South Asia (barring some exceptions) can best be termed as "tense".

RIO DECLARATION AND SCOPE FOR TRANSBOUNDARY EIA

India, Nepal, Bhutan, Bangladesh and Pakistan are all signatories to the Rio Declaration, 1992. Principle 2 of the Rio Declaration confers a "responsibility" on parties to the Declaration to ensure that activities within their jurisdiction or control "do not cause damage" to the environment of other states beyond the limits of national jurisdiction. The key words are "cause damage to the environment" and "activities". The principle is broad enough to include hydro-engineering structures such as hydropower projects since it comes within the definition of "activities"'.[26] The diversion of waters, the decline and disappearance of aquatic fauna as well as changes in sediment flows and the resultant changes in the river morphology can constitute "damage"' as understood in the context of Principle 2 of the Rio Declaration. This principle does not presuppose that actual damage must be caused. In view of the principle that a law or convention must be read as a whole, Principle 2 must be read along

22. Para 6 & Para 9 of Article IV of the Indus Water Treaty
23. Shafqat Kakakhel, The Indus River Basin and Climate Change, Available at: http://www.criterion-quarterly.com/the-indus-river-basin-and-climate-change/
24. Sub-para 2 of Article 1 of the Mahakali Treaty of 1996
25. Sub-para (a) of Article 3 of the Mahakali Treaty of 1996
26. Principle, 2 Rio Declaration on Environment and Development 1992: "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."

    Note: In the EIA Notification, 2006 Hydro Power Projects are considered as 'activities, operations and processes' which requires Prior Environmental Clearance

with Principle 17 of the Declaration, which mandates that Environmental Impact Assessments, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment. The use of the expression "likely" refers to the fact that a likelihood of a significant adverse impact is sufficient to invoke Principle 17 of the Declaration. Further, Principle 18 of the Rio Declaration requires that states shall immediately notify other states of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those states. This principle specially casts a duty to notify other states of the sudden harmful effects. How sudden is "sudden" is open for interpretation. Finally, Principle 19 can be interpreted as a mandate for Transboundary EIAs. It states that "States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith". The term "significant" is not without ambiguity and depends on the facts and circumstances of each case. It involves more factual considerations than legal determination. It is to be understood that "significant" is something more than "detectable" but need not be at the level of "serious" or "substantial".[27] The harm must lead to a real detrimental effect on matters such as, for example, human health, industry, property, environment or agriculture in other states. Such detrimental effects must be susceptible to being measured by factual and objective standards.

THE WAY AHEAD

The commitment to the Rio Declaration by all the South Asian countries could be the way forward so far as transboundary EIAs are concerned. However, one major challenge is the lack of uniform Environment Impact Assessment processes in South Asian countries. Though all countries in South Asia have EIA processes, they differ majorly in terms of the procedure as well as applicability to projects. Thus, nations of South Asia must first of all work towards a common EIA process followed by a legally-binding commitment to undertake EIAs for projects that have transboundary impacts, and only with the active and meaningful involvement of the countries that are likely to experience significant transboundary environmental effects. Regional processes such as SAARC do provide for cooperation on hydropower development among SAARC nations. In addition, the water-sharing treaties must include joint EIAs as an essential tool for holistic impact assessment. Civil society groups must also articulate the need for transboundary EIAs for projects that have impacts beyond borders. However, most importantly, there is a need to acknowledge and accept the fact that hydro-engineering structures have impacts far beyond the actual area of submergence and construction. Once this is accepted, the need for transboundary EIA can be articulated more forcefully.

27. United Nations, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, 2011, Available at: http://legal.un.org/ilc/texts/instruments/english/commentaries/9_7_2001.pdf

note

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