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REIMAGINING SOUTH ASIA

Hopes for an Indus Basin network

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Introduction

The structure of the decision-making processes in water governance is witnessing a challenging phase, due to the shifting nature of the ‘new’ issues and ‘new actors’ in world politics. While these ‘new issues’, which come under the umbrella framework of non-traditional security (energy, water, climate change), can no longer be addressed in a centralised/hierarchical/ authoritative manner, there are multiple actors – both formal (institutionalised non-governmental actors) and informal (collectives and social movements) – which are emerging at different levels. The prolific rise and increasing visibility of these actors have not only challenged the understanding of governance, security, power and sovereignty, amongst others, but have also stimulated an academic response to the study of diplomacy and the significant role that social forces and communicative action can play in the international political landscape.

Today, a growing body of literature inclines towards expanding the scope of diplomacy beyond the state-centric perspective. Brian Hocking, for instance, has drawn attention to a distinct communication pattern, which characterises contemporary socialisation between state and non-state actors. He terms this a ‘diffuse network model’, which contrasts to ‘the traditional, hierarchical model of diplomacy that stresses the centrality of intergovernmental relations’ (Hocking, 2006: 18). While Hocking feels this diffuse network model is symbolic of an evolving new culture which can be described as multi-stakeholder diplomacy (MSD), Keck and Sikkink (1999) define this evolving form of socialisation through the vocabulary of networks, defined as ‘communicative structures’. These communicative structures are often employed by transnational advocacy networks to influence discourses, procedures and policies. More importantly, networks, for Keck and Sikkink, are important because they are effectively employed by transnational

advocacy groups as political spaces in which differently situated actors negotiate the political, social and cultural meaning of their joint enterprise.

Can the Indus Basin be imagined in the form of a network of actors, who, although differently situated, nevertheless can form an intersubjective understanding on issues? Unlike existing works of Giordano and Wolf, who direct attention to the 'international community' as actors in forwarding a progressive agenda (Sneddon and Fox, 2006: 182; Giordano and Wolf, 2003), this chapter looks at networks as more nimble and decentralised relationships that can facilitate multi-level governance through indirect participation. The role played by networks can be significant because they can help reconcile the territorial yet relational notion associated with transboundary rivers. The chapter thus aims to reconcile a top-bottom with a bottom-up approach by taking note of how stakeholder engagements in multiple domestic spaces can transform the discussion around ecological issues relevant to the Indus Basin countries. How formation of places can lead to the evolution of a regional political space is also examined.

Networks, media and stakeholders

Networks are generally defined as 'forms of organisations characterised by voluntary, reciprocal and horizontal patterns of communication and exchange' (Keck and Sikkink, 1999: 91). According to Walter Powell, they are lighter on their feet when compared to a hierarchical mode of functioning and are 'particularly apt for circumstances in which there is need for efficient, reliable information' (Walter Powell 1990, cited in Keck and Sikkink, 1999: 91). In the case of Indus Basin countries, can a conglomerate of media network become an important agent through which information can be mobilised and effectively diffused to separate political spaces? More importantly, can this play a role in shaping the perspectives of multiple stakeholders who are responsible for making important policy decisions and those who are impacted by them?

Keeping these emerging nuances in mind, the present chapter imagines the Indus Basin region in terms of networks of stakeholders who are situated in distinct political places. Networks are not restricted to media houses, but also include a collective of institutions, which can illuminate multiple stakes in water sector from different disciplinary lenses. How media houses can be informed by a collective of stakeholders such as universities, think-tanks, international non-governmental organisations and non-governmental organisations is a question that the chapter aims to examine. Stakeholders include government and community representatives who influence decisions and are impacted by them. 'Diagnosis', 'discursive empowerment' and 'strategic synergy' (as defined below) are three steps through which networks can facilitate stakeholder engagements. In order to facilitate this approach, diagnosis, discursive empowerment and strategic synergy have been chosen to broaden and deepen the ecological discourse. The significance of networks and stakeholder engagements is highlighted so that ways and approaches can be facilitated to establish an interaction between rivers, states and non-state actors.

This approach can be useful in reimagining the Indus Basin through a case of networks rather than existing negotiated agreements which generally dictate the contours of hydro-diplomacy and structure riparian interaction (Sneddon and Fox, 2006: 183).

Stakeholder engagement, networks and political change

The most common understanding of stakeholder engagements is that it describes processes that aim to bring together multiple stakeholder representatives on a common platform of communication, decision-making and decision-finding on a particular issue. In other words, it is a search for new partnerships that could make the process of decision-making more participatory. For instance, Minu Hemmati (2002: 2) defines stakeholders as those who have an interest in a particular decision, either as individuals or representatives of a group. This includes people who influence a decision and those who are affected by it. Nevertheless, there is still uncertainty about what constitutes a stakeholder, and questions are raised pertaining to official, formal status and informal, unofficial status. Susskind et al. (2003) have defined stakeholder dialogues as those that seek to represent the concerns and voices of key stakeholders, with the understanding that resource constraints, uncertainty about the scope of the policy arena and other real-life limitations may prevent either the identification or the participation of less obvious stakeholders. According to these authors, though the general understanding of ‘multi-stakeholder’ involves two or more representatives, in political terms multi-stakeholder processes can be successful only when efforts are made to ensure the involvement (at different levels) of *all* key stakeholders (Susskind et al., 2003: 235–266). This is an important point, as stakeholder engagements can be most successful when they happen in a diffused manner, are inclusive and stakeholders are involved in the decisions which can potentially impact upon them. It is for this reason that issues that are discussed by multiple stakeholders are restricted to a specific sector, and networks play an important role in generating discourse and discussion amongst stakeholders.

While stakeholder involvement is a necessary precondition for inclusive decision-making, it does require an effective catalyst to mobilise the key actors. Can networks act as an effective mobilising agent – an agent which can successfully play the role of a communicative actor in building shared understanding through stakeholder engagements around issues which impact the Indus Basin?

A few similarities emerge between networks and stakeholder engagement. First, stakeholder engagements are diffuse in nature, as are networks. This helps in facilitating the process of decentralisation. Second, both may be described as communicative structures, where actors are bound to each other through a common discourse related to (in this case) the water sector. This helps in generating common frameworks through which messages can be communicated. Third, both are issue specific or focus on specific sectors around which the stakeholders or interested actors have common concerns. This helps in binding together actors in specific places at multiple levels, such as local, national and international.

Networks – diagnosis, discursive empowerment and strategic synergy

Drawing on the key assumption that political change can be made possible through the power of networks and stakeholder engagements, three steps becomes important: diagnosis, discursive empowerment and strategic synergy.

The answer to designing appropriate networks perhaps lies in the process through which a basin is diagnosed. Given that there are differences between the Upper and Lower Indus Basin – different climatic variations, needs of riparian countries, water use patterns and demographic pressures – media networks need to understand, communicate, diagnose and frame issues accordingly. However, for this a shared perspective on distinct indicators that defines specific basin zones as distinct ecosystems is required. Joint studies and umbrella networks which have branches in different countries can be the most effective entry point for building the knowledge bank for understanding the basin. The ecological community of media networks thus needs to be a decentralised network that offers a multiple diagnosis and disseminates information on specific indicators from and to different political spaces. This is important given its potential to shape the discourse at multiple levels and highlight the scalar issues related to water governance.

The second important factor in this regard is discursive empowerment. This can be defined as a process of framing issues to have maximum impact on specific policy networks. Framing helps in shaping our cognitive outlook and draws attention to certain referent objects, which are often hidden from policy discourses. It is important that Indus Basin ecology and communities are identified as referent objects so that geopolitical identities of the basin can be superseded and views from below can be strengthened and costs of non-cooperation highlighted. The role of media as strategic communicative actors that can play a significant role in cultivating a network of stakeholders is important in this regard. The networks here are thus differentially placed actors within specific political spaces, who are relevant in strengthening discourses which impact the people inhabiting riparian regions. These discourses are primarily related to the socio-economic challenges which people witness.

The third important factor is the strategic synergy that is required at the regional level by these networks. This is an important factor in reimagining the Indus Basin. The new imagination can be taken forward by engaging with differentially located actors through stakeholder platforms at the national level. Views of multiple stakeholders can be important in highlighting issues that impact the people of the basin countries. This will strengthen discourses that are relatively underdeveloped, given the current domination of mainstream discourses shaped by competing narratives around the Indus Basin. If one casts a look at media reporting on the Indus Basin, it appears fragmented, and the geopolitical undertones dominate. The reasons for this could be the distinct political culture of South Asian countries, the relative importance of statist structures and the trust deficit which exists between riparian neighbours, which in turn also impact on shared transboundary initiatives

between various organisations. Understanding domestic voices can facilitate cognitive understanding in terms of designing outreach of media to a network of stakeholders. Can this strategic synergy lead to a discursive empowerment of issues that are currently underdeveloped in the water discourse?

While these specific steps draw attention to the potential role that networks could play in different political spaces, a number of background preconditions are necessary for these networks to become relevant to South Asia. The first two of these preconditions are: the media needs to act as an umbrella network centred on a specific issue, such as water; and there must be synergy among media networks across borders. So, while a network umbrella at the regional level plays a centralising role, it also has a web of decentralised nodes in distinct political spaces. The third and final precondition is that media reporting needs to focus on similar indicators and specific basin zones in order to highlight shared sensitivities of the basin or sub-basin.

A primer on the Indus Basin and the importance of indicators

In recent years, influenced by changing geopolitical, social, economic and environmental conditions, such as population growth and the impact of climate change, the Indus Basin has suffered increasing stress and it is losing its capacity to support the future water needs of both India and Pakistan. If one looks at the existing literature, in addition to surface water issues, groundwater extraction is a matter of grave concern. Pakistan and India share a continuous water aquifer that cannot be clearly demarcated between the two countries. Therefore, over-extraction of groundwater by one state or the other causes water stress in both. At present, both Indian and Pakistani Punjab are extracting large amounts of water, and as a consequence the aquifer's quality and quantity have been affected. Besides, surface water flowing from upper riparian regions in China and Afghanistan is a concern for both India and Pakistan (especially given the potential for storage dams, which would alter the quantity of water and raise ecological concerns) due to the lack of a broad framework to guide riparian states on water issues.

The Indus Basin, though largely shared by India and Pakistan, also includes Afghanistan and China as distinct stakeholders. It needs to be noted that while China has a minor stake in the basin, its position as an upper riparian is most overbearing. This is especially so given the country's massive investments in Pakistan, particularly in hydropower projects, and the siltation which is inflicted on the lower riparians due to mining and deforestation activities on the Tibetan Plateau (Kondapalli, 2017). If one examines the geography of the Indus Basin, India can be viewed as a middle riparian. However, this geopolitical distinction does not lead to much progress, as it perpetuates status-quoism between riparian neighbours perpetuating state-centric discourses. While geopolitical identities of the basin countries are drawn sharply, there are some common socio-economic and ecological issues that the Indus Basin communities witness. In this context, there are some common indicators that can help us make sense

of the concerns that the Indus's communities jointly face. These indicators can also facilitate the diagnosis, discursive empowerment and strategic synergy of the basin countries.

Hydrology

The Indus Basin comprises the main stem of the Indus River, its five major left-bank tributaries (the Jhelum, Chenab, Beas, Sutlej and Ravi) and three right-bank tributaries (the Shyok, Gilgit and Kabul). If one casts a look at snow-melt patterns and precipitation rates, the climate is not uniform over the basin. It varies from sub-tropical arid and semi-arid to temperate sub-humid on the plains of Sindh and Punjab, to alpine in the mountainous highlands of the north. Annual precipitation ranges between 100 and 500 millimetres in the lowlands to a maximum of 2,000 millimetres on mountain slopes, and snowfall at higher altitudes (above 2,500 metres) accounts for most of the river runoff (FAO, 2011). These variations are important in understanding hydrology because they unravel the differentiated impact that the Indus and its tributaries have on specific regions and riparian communities.

The Indus Basin is largely divided into the Upper Indus and the Lower Indus. While the Upper Basin is mainly dominated by rugged, high mountains, including the cold desert regions of Tibet and Ladakh, the Lower Basin is dominated by the alluvial plains of Punjab and Sindh (Pakistan). While the Upper Indus Basin refers to India and the Lower Indus Basin to Pakistan, it needs to be noted that issues of the western rivers are very different from issues of the eastern rivers. For instance, there is variation in the Upper and Lower basins in terms of both glacial melt and precipitation patterns. It is for this reason that floods are a major challenge for Pakistan and waterlogging a major problem for India. Since the issues of the Lower Indus plains are different (with rivers like the Ravi and Beas not so dependent on glacial runoff), it is important that the sub-basins are studied separately in order to offer specific suggestions for understanding the Indus Basin as a whole and the problems encountered by riparian neighbours who are part of each sub-basin in particular. Irrigation needs, cropping patterns, differentiated use of groundwater and surface water are some factors that can help illuminate the sub-basin approach in a zonal manner.

Hydrology can become an effective entry point for taking diagnosis forward, primarily because of the scalar approach inherent in hydrological analysis. The hydrological understanding is important because it has the potential to inform the ecological understanding of the river in terms of the larger ecosystem in which it is situated (Sneddon and Fox, 2006: 183). It further distances itself from the territorial trap, where a river gets a distinct national identity when it flows through different countries.

Thus, given the difference in topography, river morphologies, demographic peculiarities and impact of climate change, it is important to divide the Indus Basin into specific zones that could be based on individual rivers, given the specific issues

they witness/experience. For instance, in the Lower Indus Basin, groundwater exploitation has emerged as a major problem for both India and Pakistan. According to one report, observations from the NASA Gravity Recovery and Climate Experiment (GRACE) satellites and simulated soil–water variations from a data-integrating hydrological modelling system show that groundwater is depleting (Romshoo, 2012: 45). And more recent GRACE research has revealed that the Indus Basin aquifer of northwestern India and Pakistan is the second-most over-stressed aquifer in the world. In terms of water extraction from aquifers, India ranks first and Pakistan fourth in the world (The Third Pole.net, 2015).

Meanwhile, when it comes to the Upper Indus Basin, hydropower generation emerges as a serious challenge. Afghanistan has a total of four major dams in the Indus Basin. India has recently completed the long-postponed construction of the Salma Dam in the western part of Afghanistan and there are reports that it plans to help Afghanistan build twelve more dams on the Kabul River. As far as China is concerned, construction of a small hydroelectric station on the Sutlej River in the Tibet Autonomous Region was reported in June 2006, and by 2010 it had completed a medium-scale dam on the Indus, close to Demchok, Ladakh. Meanwhile, Pakistan has constructed multiple small dams and barrages and three major hydropower dams – Tarbela, Mangla and Ghazi Barotha. It is also proceeding with two major hydroelectric projects – the Neelum–Jhelum Hydroelectric Project and the Diamer Hydroelectric Project – with Chinese assistance. Finally, India has commissioned six large dams – Bhakranagal, Pandoh, Pong, Salal, Baglihar and Ranjitsagar. There is conflict between various riparian neighbours on technical details, during which water security has emerged as a major challenge for rationalising political choices. Significantly, at the bilateral level between India and Pakistan, disputes tend to revolve around hydropower projects. As a consequence, other aspects (for instance, water quality) that could illuminate the Indus Basin in distinct ways remain largely obfuscated.

Socio-economic challenges

A focus on socio-economic challenges in the Indus Basin is significant because it draws attention from key nodal conflicting points that occupy the riparian countries. Discursive empowerment can be the key process which has the potential to illuminate socio-economic challenges which the riparian countries encounter. For instance, when it comes to socio-economic challenges, the states of Indian and Pakistani Punjab experience health issues related to water governance and water quality. Both India and Pakistan rely more on groundwater than surface water, yet the negotiated agreements between the two countries focus on surface water while groundwater accords are relatively absent at the bilateral level. In Pakistan, current use of canal water has decreased from 7.9 million to 6.9 million hectares, while groundwater extraction has risen from 2.7 million to 3.4 million hectares. Indus Basin groundwater quality also varies from freshwater to saline, depending on the point of recharge source and origin and movement of water in a particular aquifer

(Qureshi et al., 2010). Similarly, it has been noted that there is a preference for groundwater over surface water in India, given that both rice and wheat crops are susceptible to high evapotranspiration rates (Vashisht, 2008). High cropping intensity coupled with the high evapotranspiration rates of these commonly sown crops has resulted in deterioration of water resources in Indian Punjab. There are also significant health risks. While in Pakistan these risks stem from industrial effluents joining the eastern tributaries, in India they stem from the increased use of pesticides since the Green Revolution.

The socio-economic challenges are further complicated by the demographic characteristics of the Indus Basin. According to one study, Afghanistan's and Pakistan's shares of the basin's population are sure to increase in the future. This is already visible in the two countries as fertility rates for 2010 to 2015 show Afghanistan at 5.13 and Pakistan at 3.72, both well ahead of India at 2.48 and China at 1.55 (United Nations Department of Economic and Social Affairs cited in Adeel and Wirsing, 2017). While these factors suggest the competitive undertones of these basin countries which will manifest in the near future, one discourse has drawn attention to fractal conflicts. Surveying multiple water conflicts in South Asia, Ayub Qutub et al. (2004) have suggested that water conflicts may be fractal in nature (that is, they have recurring similar characteristics across geographical scales), with the most important manifestation at the local scale (cited in Mustafa, 2007: 490). This observation is useful in reifying some of the developments in the Indian and Pakistani states of Punjab, where issues of water and land rights are interconnected and often privilege the upper strata of farmers rather than the marginalised and the landless. The 'discursive social structures' which Qutub et al. argue could exist across spatial scales is an important factor that could be employed by networks to highlight issues related to human security and insecurity. Socio-economic challenges in many ways are also entry points to discursive empowerment around issues which focus on water security in terms of accessibility and affordability rather than mere availability. Such issues become important in the context of South Asian countries in particular, primarily because of the class/caste, feudal structures which are embedded in the cultural/structural contexts of these countries. Networks can play an important role by both reaching out to stakeholders and informing them of the common issues which riparian communities experience in this regard. This can be an important step towards depoliticising transboundary rivers and can lead to the discursive empowerment of issues which are often obscured in transboundary water diplomacy.

Legal frameworks

Legal frameworks are important because they guide institutions and policies. However, the degree to which legal frameworks resonate with the needs of the people and the changing contexts is something which needs to be explored. In the South Asian context, international water law frameworks have played a marginal role. While there is a bilateral treaty between India and Pakistan, there is presently

no legal regional framework for co-riparian cooperation between the four countries. Consequently, there is a lack of communication and trust among the co-riparians. In the last four decades, demographic pressures, internal demands by Kashmiris for their rights on the western rivers, concerns about climate change and fluctuating precipitation patterns, issues relating to water quality rather than quantity, and excessive exploitation of groundwater rather than surface water have all contributed to exacerbating the challenges of water security and water governance in the Indus Basin. Yet the legal frameworks at both bilateral and national levels have not kept pace with the changing ecological climate and socio-economic challenges which the basin is facing. At the domestic level, both India and Pakistan have their own water laws, which are shaped by the two countries' distinct political cultures, inter-state/inter-provincial rifts and hydrological history.

If one casts a look at the international water law framework, there is an existing body of non-binding instruments as well as international policy consensus on the shape that domestic water law should take (Cullet, 2009: 25). Some of relevant existing frameworks, in addition to the Dublin Statement, MDGs and Plan of Implementation (WSSD), are the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses (adopted by UNGA on 21 May 1997 and entered into force on 17 August 2014); the 2008 UN International Law Commission Draft Articles on the Law of Transboundary Aquifers; and the 2011 UNGA Resolution on the Law of Transboundary Aquifers (UN Doc A/Res/66/104). However, these international principles have limited impact on the domestic policy context of the riparian countries in the Indus Basin, primarily because the water laws are too detailed, underdeveloped or in some cases even non-existent (for instance, there are no laws relating to groundwater in Pakistan).

Can a strategic synergy be established between Indus riparians and networks in this regard? Reporting by media networks on some of the common concerns of these countries should help to expose the lack of a common framework at the national level and the disconnections between some frameworks on water management practices in the field. The archaic laws in India and Pakistan – most of which are colonial – are important pointers in this regard. The broadening of legal discourse to questions relating to water quality, pollution control, water accessibility and the right to clean drinking water (sanitation) are some factors that may engage stakeholders in an inclusive/critical manner and also lead to the discursive empowerment of relevant issues.

Thus, while divergent interests exist on these indicators, it needs to be noted that water security and human security are at stake when it comes to managing the common resources of the region. Engaging stakeholders through networks which are linked to each other at the regional level could be an entry point for cognitive – if not identity – transformation. Strategic synergy can be established by highlighting the concerns of riparian communities and whether a normative framework can help to ease some of the concerns which do not currently find a place on the restrictive agenda of hydropolitics. However, a key node in the transformative exercise would be the two major riparian stakeholders – India and Pakistan.

Evidence from the neighbouring states of Indian and Pakistani Punjab suggests that there are more similarities than differences when it comes to ineffective water management practices, institutional incapacity and awareness amongst stakeholders.

While some of these suggestions might appear appealing at a theoretical level, some past cases, particularly the Anti-Personnel Landmine Treaty and the World Commission on Dams, reveal that umbrella networks can work effectively in a decentralised fashion if coordination and collaboration amongst actors are addressed. In this regard, networks must play a leading role and media as a communicative actor must cultivate partnerships with academic institutions, policy institutes, governmental stakeholders and formal and informal institutions working on ecological issues. Joint partnerships among universities, think-tanks and international and non-governmental actors must study transboundary rivers. Non-state actors can play a particularly important role in this context, given that political relations amongst the Indus Basin countries are constrained and the states often act as gatekeepers. Such an approach can help to cast an ecological community for the Indus Basin, which will not only facilitate certain discourses related to the water sector but also lead to a discursive change towards the narrative of the Indus Basin over the long term. Thus, a web of collectives bound through networks is an important entry point for networks to materialise. Collaboration between universities in South Asia along with regional media networks, policy institutes, community and government representatives is one of the fundamental starting points for such stakeholder engagements.

References

- Adeel, Z. and Wirsing, R. (eds). (2017) *Imagining Indus: Overcoming Water Insecurity in the Indus Basin*. Switzerland: Springer
- Cullet, P. (2009). *Water Law, Poverty and Development: Water Sector Reforms in India*. New Delhi: Oxford University Press
- FAO. (2011). Indus Basin, Water Report 32. www.fao.org/nr/water/aquastat/basins/indus/index.stm (accessed 20 May 2017)
- Giordano, M., Wolf, A. (2003). Sharing waters: Post-Rio international water management. *Natural Resources Forum* 27: 163–171
- Hemmati, M. (2002). *Multi-stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict*. London: Earthscan
- Hocking, B. (2006). Multistakeholder diplomacy: Forms, functions, and frustrations. In J. Kurbalija and V. Katrandjiev (eds) *Multistakeholder Diplomacy: Challenges and Opportunities*. Malta and Geneva: Diplo Foundation
- Keck, M.E., Sikkink, K. (1999). Transnational advocacy networks in international and regional politics. *International Social Science Journal* 51: 89–101
- Kondapalli, S. (2017). The Indus Basin: The potential for basin wide management between China and its Himalayan neighbours India and Pakistan. In Z. Adeel and R. Wirsing (eds) *Imagining Indus: Overcoming Water Insecurity in the Indus Basin*. Switzerland: Springer
- Mustafa, D. (2007). Social construction of hydropolitics: The geographical scales of water and security in the Indus Basin. *Geographical Review* 97(4): 484–507

- Qureshi, A.S., McCormick, P.G., Sarwar, A., Bharat, R.S. (2010). Challenges and prospects of sustainable groundwater management in the Indus Basin, Pakistan. *Water Resource Management* 24(8): 1551–1569
- Qutub, S.A., Saleemi, A.R., Reddy, M.S., Char, N.V.V., Gyawali, D., Sajjadur, K.B., Nickum, J.E. (2004). *Water Sharing Conflicts within Countries and Possible Solutions*. Honolulu: Global Environment and Energy in the 21st Century. www.gee-21.org/publications/Water-Sharing-Conflicts-within-Countries-and-Possible-Solutions.pdf (accessed 20 May 2017)
- Romshoo, S.A. (2012). *Indus River Basin: Common Concerns and Roadmap to Resolution*. Centre for Dialogue and Reconciliation. www.researchgate.net/publication/236001988_Indus_River_Basin_Common_Concerns_and_the_Roadmap_to_Resolution (accessed 20 May 2017)
- Sneddon, C., Fox, C. (2006). Rethinking transboundary waters: A critical hydropolitics of the Mekong Basin. *Political Geography* 25(2): 181–202
- Susskind, L.E., Fuller, B.W., Ferenz, M., Fairman, D. (2003). Multi-stakeholder dialogue at the global scale. *International Negotiation* 8: 235–266
- The Third Pole.net. (2015). Pakistan on brink of being ‘water scarce’. www.thethirdpole.net/2015/07/20/pakistan-on-brink-of-being-water-scarce/ (accessed 20 May 2017)
- Vashisht, A.K. (2008). Status of water resources in Punjab and its management strategies. *Journal of Indian Water Resources Society* 28(3): 1–7