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The Kabul River

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6

ANALYSIS OF INTERNATIONAL RELATIONS IN THE KABUL RIVER BASIN (KRB)

6.1 INTRODUCTION

This chapter describes, analyses and compares relations between Afghanistan and Pakistan in the KRB. It aims to answer the following questions: (1) how are various characteristics including ESS and drivers of freshwater problems taken into account at transboundary level in the KRB? (2) How have freshwater governance frameworks evolved at transboundary level in the KRB? (3) Which governance instruments address the drivers of freshwater problems at transboundary level in the KRB? (4) How does legal pluralism occur at transboundary level in the KRB? (5) How do power and institutions influence freshwater governance frameworks at transboundary level in the KRB?

This chapter draws on the methodology in Chapter 2 to answer these questions and proceeds as follows. First, it discusses the political organisation of governance in the KRB (see 6.2), ESS (see 6.3) and drivers of freshwater problems (see 6.4). Second, it investigates the evolution of transboundary level institutions in the KRB (see 6.5) and identifies the relevant goals (see 6.6.1), principles (see 6.6.2) and instruments (see 6.6.3) within these institutions. Third, it explains the instances of legal pluralism (see 6.7). Fourth, it discovers the correlation between principles/instruments and drivers to achieve inclusive and sustainable development (see 6.8). Finally, the last section draws inferences (see 6.9).

6.2 THE CONTEXT OF WATER GOVERNANCE AT TRANSBOUNDARY LEVEL IN THE KRB

The Kabul River is an important tributary of the Indus River System (IRS) jointly used by two riparians - Afghanistan and Pakistan (Azizi 2007). There is no formal regulatory framework to equitably share the water resources and hence each country does what it wants in such an anarchic system. Overall, the key issues in the KRB are: (a) issues related to water sharing as (i) Afghanistan claims more water because 80% of the Kabul River is located in Afghanistan while Pakistan's claim is based on 50% water flow contribution in the Kabul River, (ii) Afghanistan is utilising only 10% while Pakistan 90% of the Kabul River water resources, and (iii) both countries claim more water explicitly and/or implicitly; (b) issues related to quality where urbanisation, industries including mining and manufacturing and increasing pesticide use in both commercial and subsistence agriculture is increasing pollution in the river.

Although, Pakistan is utilising a major portion of the water resources in the KRB, it is worried about the future access to water as Afghanistan is planning new dams and irrigation infrastructure (Hessami 2017; Majidiyar 2018). The unilateral development of the shared river basin by an upper riparian (e.g. Afghanistan) to misuse its geographic advantage or the deployment of other forms of power (i.e., material, bargaining and ideational) by a lower riparian to restrict the upper riparian from doing so can have serious repercussions for hydro-relations and regional peace (Zeitoun and Warner 2006). The already tense environment and hostile situation in the KRB can exacerbate the existing security situation in the region (Hanasz 2011b; Kakakhel 2018). Favre and Kamal (2004: p. 107) argue that riparian issues in the KRB are very complicated given the ongoing conflict in the

basin and the border dispute between Afghanistan and Pakistan. The long standing border dispute has become especially sensitive since the emergence of the war-on-terror in 2001 (Hussain 2011). The irrigation development and hydro-power generation of Afghanistan can possibly prompt tensions between the two neighbours (Ahmad, 2010). The new conflict can trigger the old and unsettled *Durand Line* border dispute between the two countries (Ahmadzai and McKinna 2018; Renner 2009).

It has been assumed that lack of water in many parts of Afghanistan has caused civil unrest, including the rise of the Taliban and other militant groups, because water scarcity severely affected subsistence farmers and herders leading to militancy and violence as a coping strategy (Ahmad 2016; Habib 2014). Combined with shrinking water availability in both countries due to intensive agriculture and mining practices, population influx, urbanisation and climate change, the hydro-relations between Afghanistan and Pakistan may be further deteriorated. Hence, water security has been linked to national security narratives in the region. (Azizi 2007; Habib 2014). The water experts and diplomats in Pakistan are of the opinion that new hydro-power generation and irrigation infrastructure projects would significantly affect the water-related infrastructure and economy of the Khyber Pakhtunkhwa (KP) province of Pakistan (Kiani 2013; Pervaz and Khan 2014). Reduction in the freshwater flow to Pakistan in the KRB area can potentially have adverse impacts on the livelihoods of many poor people combined with the uncertainties linked to climate change (Azizi 2007; Hanasz 2011b).

6.3 CHARACTERISTICS AND ECOSYSTEM SERVICES OF THE KRB

6.3.1 The Kabul River

The Kabul River rises 72 km west of Kabul city in the Sanglakh Range of the Hindukush Mountains and is situated in north-western Pakistan and eastern Afghanistan (Akhtar 2017; SIWI 2015). The total length of the Kabul River is 700 km where only 20% of the river length is located in Pakistan while the remaining 80% in Afghanistan. Before entering the Khyber Pakhtunkhwa province of Pakistan - some 25 km north of the Durand Line near Torkham, it passes through various important cities of Afghanistan such as Sarobi, Jalalabad, and the capital city of Kabul (Ramachandran 2018). Kunar, Swat, and Bara in Pakistan and Alingar, Panjsher, and Logar in Afghanistan are some of the major and important tributaries of the Kabul River (SIWI 2015: see Figure 6.1). The largest tributary is the Kunar River (contributing more than 50% of the water flow) which starts out as the Mastuj River in District Chitral, Pakistan (Kiani 2013) and joins the Kabul River near the city of Jalalabad (Kakakhel 2018). The Kabul River contributes approximately 26% to the total annual water flow in Afghanistan which covers about 12% of the total land area (IUCN 2013).

The river remains as the Kabul River predominantly for historical and political reasons although the Kunar River contributes more water than the Kabul (Kakakhel 2018). The Kabul River connects 11 provinces of Afghanistan with one province of Pakistan (Khalid et al. 2013). The town of Asadabad is the first main inhabited area on the Kunar River on the Afghanistan side of the border, while

Kabul City is situated on the Kabul tributary (IUCN 1994). The city of Jalalabad is the last major town of Afghanistan before the Kabul River enters into Pakistan. Jalalabad is basically situated at the convergence of the Kunar and Kabul Rivers (Thomas 2014). After entering Pakistan, the Kabul River passes through various settled and populated areas of the Khyber-Pakhtunkhwa Province (Majidiyar 2018), including the city of Peshawar which is located close to the Shah Alam tributary of the Kabul River. The cities of Nowshera and Charsadda are two other densely populated cities situated close to the Kabul River (Iqbal 2017; IUCN 1994).

The KRB has the potential of reaching 21 Billion Cubic Meters (CBM) of water per year and can potentially generate nearly 23,000 Megawatts of hydroelectric power from the rivers such as the Kabul River, which can produce up to 3,100 megawatts of electricity (Kiani 2013; Yousaf 2017). The Kabul River monthly discharge data (average monthly discharge 38,120 cusecs) shows high seasonal variability (Ahmad et al. 2009) where the low flow period is September to April and the high flow period is from May to July (Khan and Khan 1997). This seasonal snow and glacial melt is contributing largely in this variation (Yousafzai, Khan, and Shakoori 2008b). The entire area of the KRB is highly arid and any rainfall impact is basically covered by glacial inputs (Rasouli et al. 2015; Iqbal et al. 2018). In addition, the tributaries of the KRB in Afghanistan are also situated in low rainfall areas. The River Swat is the main tributary of the Kabul River below Warsak Dam before it joins the Indus (Yousafzai, Khan, and Shakoori 2008b).

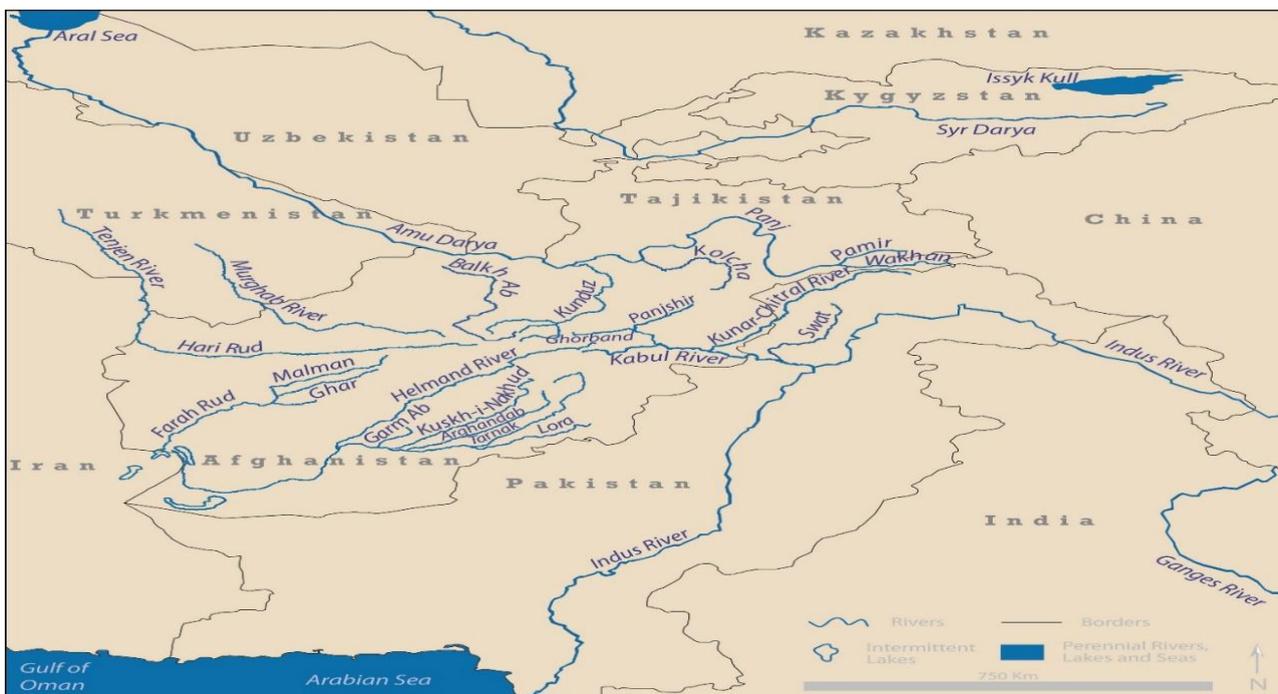


Figure 6.1: Map of the Kabul River Basin (Source: The Center for Afghanistan Studies)³

³<https://www.unomaha.edu/international-studies-and-programs/center-for-afghanistan-studies/academics/transboundary-water-research/DLM12/DLM12.php>.

6.3.2 Freshwater Biodiversity in the KRB

The entire stretch of the Kabul River hosts about 35 commonly known species of fish (Nafees et al., 2011). Among these, the most famous species is called Masheer (king of river fish) whose population is on the decline since 1990 (Nafees et al. 2011; Saeed 2018). This decline is linked to large scale commercial fishing activities and municipal pollution in the river near Nowshera and Peshawar which, disturb fish migration (Nafees et al. 2011). The raw municipal and industrial sewage is frequently discharged through irrigation canals and urban drainage channels due to lack of wastewater treatment facilities. This results in high absorption of pathogenic microorganisms and severe microbial pollution in the KRB (Murtaza and Zia 2012; Zaryab et al. 2017). An enormous number of seasonal bird species (i.e. cranes, waterfowl and waders) migrate to the Kabul River wetlands in the winter. These birds arrive through the Chitral District and then travel through diverse routes. Some fly to Kashmir via Shandour pass while some follow the Chitral River, entering Afghanistan. Observations in winter have identified a number of ducks including pintail, shoveller, widgeon, mallard, and ruddy shelduck. Other birds include gulls, egrets, lapwings, herons, and terns that are commonly spotted. Cranes were once frequent visitors in the past. They are rarely sighted these days as their numbers seem to have considerably dwindled over time (IUCN 1994; Nafees et al. 2016). Turtles are commonly found along various sites of the Kabul River but are predominantly abundant near the junction of two Peshawar sewage drains (IUCN 1994).

6.3.3 Supporting Services

The Kabul River supports soil formation by transporting minerals (sand/gravel) (Tunnermeier and Himmelsbach 2005). The organic nutrients enhance fertility of the floodplains and support its reconstruction (Nafees et al. 2016). The flow in the river continues to provide other ecosystem services. The KRB provides supporting services to numerous plant and animal species, and supports vegetation which further helps in erosion control (Frischmann 2012). Supporting services provided by the KRB are presented in Table 6.1.

6.3.4 Provisioning Services

The Kabul River and all its tributaries collect water from their catchment areas through rainfall, snow melt and glacial melt (Ahmad et al. 2009; Rasouli et al. 2015). On their way to the ocean after joining the Indus River System, this water becomes available to humans and the environment (Ahmad et al. 2009). The common uses of the freshwater in the Kabul River include sewage disposal, irrigation, watering livestock, fishing, transportation, washing, bathing and recreation. The livelihoods of many local people in the KRB are dependent on the regular and healthy flow of the Kabul River (Nafees 2004). Navigation by boats and vessels, extraction of sand and gravel and plant resources from the floodplain support numerous people (Frischmann 2012). Water itself in the KRB is considered to be the most important provisioning service. The Kabul River contributes a fourth of Afghanistan's freshwater needs (Kakakhel 2018). In Afghanistan, 28% of the Afghan households are connected to the power supply system most of which is produced from the Kabul River and its

tributaries (Kakakhel 2017, 2018). Most of the tributaries of Kabul River originate in the mountains and form a potential source of energy (Nafees et al. 2016). Provisioning of groundwater through infiltration in muddy floodplains is another important service of the Kabul River (Tunnermeier and Himmelsbach 2005). The 35 different fish species throughout the KRB is a source of livelihoods and diet for many poor people living in the KRB. Additionally, the Indus waters fish can also be considered as part of the provisioning services because both the rivers merge near Attock District of Punjab Province in Pakistan (Nafees, Ahmad, and Arshad 2011). The Kabul River and its tributaries also provide, through annual flooding of the floodplains, a variety of plant resources which are utilised as food, fuel, timber, fibre and forage (Shroder and Ahmadzai 2016). Local communities and tourists utilise the Kabul River for navigation (Abbas et al. 2018). Before the construction of Warsak Dam, the Kabul River was the main source for transporting timber from Afghanistan to Pakistan (ibid). There are hundreds of villages on the right and left bank of the Kabul River in Pakistan. However, very few bridges are serving these people to cross the river. Therefore, people use taxi-boats, chairlifts, and cable cars to cross the river which provides earnings for some poor people. This enhances tourism in the area while lowering energy demand and saving on infrastructural costs. Provisioning services provided by the KRB are presented in Table 6.1.

6.3.5 Regulating Services

One of the most important regulating services of the Kabul River is hydrological regulation (Tunnermeier and Himmelsbach 2005; Akhtar 2017). From June to August the flow in the Kabul River is mostly high due to fast melting snow and glaciers which causes flooding (Iqbal et al. 2018). However, the flood water is sometimes diverted and used for irrigation in other arid areas downstream (Ahmad 2010). A big part of the KRB consists of floodplains that help in recharging groundwater (Tunnermeier and Himmelsbach 2005). This is done when some of the flood waters are held in the floodplain which infiltrates into the ground. The extra water is gradually released back into the river. The connectedness of the Kabul River with the groundwater recharge is another regulating service which helps in improving the quality of groundwater by removing nutrients and pollutants while passing through soil layers (ibid). However, increasing pollution in the KRB contributes to groundwater pollution if the sediments are absorptive. The capacity to assimilate organic waste is another regulating service of the Kabul River (Nafees 2004; Zaryab et al. 2017). Some of the organic waste is removed by direct consumption by certain aquatic fauna, such as fish and turtle. Aquatic and wetland plants in and around the KRB play a critical role in sequestering nutrients as well as many other pollutants (IUCN 1994). Forested floodplain barriers prevent nonpoint source pollutants (i.e., pollution from agricultural lands, urban runoff and energy production) from inflowing into small streams and enhance in-stream handling of both nonpoint and point source (e.g., pollution from air, water, thermal, noise or light) pollutants (Khuram et al. 2017; Zaryab et al. 2017). Another regulating service of considerable interest of the Kabul River is climate regulation through carbon sequestration in the floodplains and surrounding forests (Khuram et al. 2017). Regulating services provided by the KRB are presented in Table 6.1.

6.3.6 Cultural Services

KRB has been providing a variety of social, cultural and religious activities for centuries (USAID 2017a). A number of activities including sport fishing, swimming, rafting, tourism and recreational boating are common throughout the world though their importance varies greatly between cultures (Kakoyannis and Stankey 2002; Khan 2005). There are mosques at various point on the Kabul River shore where worshipers can access freshwater to clean themselves (doing *_wadu* or bathing) before praying.⁴ Mass bathing in the Kabul River which occurs mostly in summers provides an opportunity for social gathering and communication. Similarly, the KRB also provides a cultural opportunity for women to gather and do laundry on the banks of River.⁵ These activities do not harm perceptible degradation of the river as long as flows are not regulated, and the natural biodiversity helps assimilate these *_wastes* as described above. The waterfowl shooting is a famous sport activity for tourists as well as local people in the KRB. The waterfowl shooting activity takes place between December and April when they migrate along the Indus flyway (IUCN 1994). Hunting and fishing for recreation and food are currently the main recreational uses of the Kabul River (Yousafzai, Khan, and Shakoori 2010; Mohammad Nafees et al. 2018). The increasing number of riverside restaurants near Nowshera and Charsadda serve Kabul River fish. Additionally, the local people enjoy walking and appreciate the quiet and peaceful environment on the river banks (IUCN 1994; Yousafzai, Khan, and Shakoori 2008a). In some of the areas in Swat and Chitral people conduct various other activities such as kayaking, canoeing, and white water rafting (IUCN 1994). The local people sing various songs about the Kabul River as this River has stimulated the thoughts of local communities (ibid). There are various famous poems and songs about the Kabul River which are sung at different local and national festivals and ceremonies.⁶ Cultural services provided by the KRB are presented in Table 6.1.

⁴ Interviewee 47, 55

⁵ Interviewee 1, 2, 13

⁶ Interviewee 1, 2, 10, 24, 33

Table 6.1: Major ecosystem services provided by the Kabul River

Kinds of freshwater in the KRB	Supporting Services		
	Formation of soil (gathering of organic matter and sediment retention); habitat provision (provision of habitat for wildlife feeding, shelter, and reproduction; nutrient cycling (processing, storage, recycling, and gaining of nutrients))		
	Provisioning	Regulating	Cultural
Rainbow water	Huge storage of water on Earth; habitat for birds & insects	Climate regulation, hydrological regulation	Aesthetic (inspiration for art), spiritual (rain Gods/ Gods of thunder), inspiring knowledge)
Blue surface & groundwater	Water collection from catchment areas through rainfall, snow & glacial melt; irrigation, finishingwaste disposal, recreation, navigation, shelter, medicine, bathing, washing, water for power supply system; provisioning of groundwater through infiltration in muddy floodplains; services such as indicators of proper land management, and land use	Hydrological regulation through flood water usage for irrigation in arid zones; groundwater recharge through infiltration of flood water into the ground; water quality improvement by removing nutrients and pollutants through soil layers; assimilation of organic waste by certain aquatic fauna such as fish and turtle; nutrients sequestration; climate regulation through carbon sequestration	Recreational uses such as fishing, hunting waterfowl sports, canoeing, kayaking, white water rafting, sport fishing, swimming; opportunity to worshipers to access water and clean themselves; mass bathing and opportunity for social gathering mostly in summers; riverside restaurants attract tourists and provide peace and quiet environment; inspiring the imagination of the local people through songs
Green water	Fodder, food, pastureland, herbs and shrubs	Evaporation (flowing downwind to fall as precipitation later), and aquifer recharge	Forests & landscapes for tourism, spiritual needs and education
Grey water	Rice and vegetable production, fodder crops, energy production, mining	Climate and water regulation, evaporation flowing downwind to later fall as precipitation	Education services regarding the negative impacts of chemicals in water
Black water	Animal fodder, insects and worms as birds' food	Spreads disease unless managed	Educational services regarding its negative effects
White frozen water/glaciers	Habitat for markhor and snow leopard, storage of water	Albedo effect	Preserving data for humans, information about CO ₂ in the past, preserving life forms frozen in the past

Source: IUCN 1994; Kakoyannis and Stankey 2002; Khan 2005; Tunnermeier and Himmelsbach 2005; Ahmad 2010; Yousafzai et al. 2010; Frischmann 2012; Rasouli et al. 2015; Shroder and Ahmadzai 2016; Khuram et al. 2017; Akhtar 2017; Zaryab et al. 2017; USAID 2017a; Iqbal et al. 2018; Abbas et al. 2018; Kakakhel 2017, 2018; Nafees et al. 2018.

6.4 DRIVERS OF FRESHWATER PROBLEMS AT TRANSBOUNDARY LEVEL IN THE KRB

6.4.1 Direct drivers

The key direct drivers of KRB related to water conflict at transboundary level are (see Table 6.2): (a) agriculture development (e.g., commercial agricultural practices including animal husbandry, the extractive sector and water use in energy)⁷; (b) industry (including services and infrastructure)⁸; and (c) demographic shifts (i.e., migration, population growth, increase in population density, urbanisation, population growth).⁹ The demand for water has dramatically increased in both Afghanistan and Pakistan due to unplanned population growth (Majidyar 2018). The returning and settling of more than three million Afghan refugees may put additional stress on the freshwater resources (BBC 2016). The KRB covers nine provinces in Afghanistan and two in Pakistan. Additionally, around 25 million inhabitants reside in the KRB. (Paula-Hanasz 2011; Ramachandran 2018). Agriculture development in both countries is vital to the livelihoods of millions of people where it contributes 50% to GDP in Afghanistan and 22% in Pakistan greatly (Ahmad 2010; Aziz 2013). Agriculture provides direct and indirect employment to 85% of the population in Afghanistan and 70% in Pakistan (Paula-Hanasz 2011). The conflict between Afghanistan and Pakistan which is currently negligible can potentially be exacerbated in the near future due to the growing demands of growing populations of both countries (Kakakhel 2017; Pervaz and Khan 2014). Subsistence and commercial agriculture as well as mining practices provide livelihood opportunities to many poor people in the region (The World Bank 2014; USAID 2017b).

6.4.2 Indirect Drivers

The key indirect drivers of the freshwater problems in the KRB at transboundary level are (see Table 6.2): (a) Political dynamics between states;¹⁰ (b) culture and ethnic elements (such as wasteful use of resources and behaviours concerning access and allocation etc.);¹¹ (c) non-water-related policies (e.g. land tenure and land use, agriculture & food security, as well as economic development);¹² (d) economy (economic growth);¹³ (e) poverty;¹⁴ (f) technological advances (agriculture intensification);¹⁵ (g) global trade (e.g. virtual water trade or ‘globalisation’);¹⁶ and (h) natural change and variability in weather – droughts, floods, landslides and tectonic movement.¹⁷ Political dynamics between states is an important transboundary level driver where ‘Durand Line’ as an

⁷ Interviewee 2, 13

⁸ Interviewee 6, 10, 11

⁹ Interviewee 9, 12, 22, 33, 34, 35, 46

¹⁰ Interviewee 5, 25, 26, 27, 41, 52

¹¹ Interviewee 7, 10, 32, 50

¹² Interviewee 1, 13, 21, 67, 71

¹³ Interviewee 1, 2, 10, 29, 31

¹⁴ Interviewee 7, 8, 28

¹⁵ Interviewee 54

¹⁶ Interviewee 2, 10, 17, 49

¹⁷ Interviewee 15, 18, 37, 64

internationally recognised border is not acceptable to Afghanistan. The Durand line – apart from separating Afghanistan from British India in 1893 – also divides water resources in the KRB. It allows Pakistan to claim the water flows from the Hindukush Mountains of Pakistan. Afghanistan, on the other hand, argues that sources of the Kunar River which originates in Pakistan actually belongs to them. The political context of extremism, Taliban proxies and Pakhtunistan inhibits collaboration affects and is affected by water related issues between the two neighbours. Similarly, freshwater resources in the KRB at transboundary level is threatened by the rise of commercial agriculture practices and the mining industry which may be further aggravated with the completion of US\$62 billion worth of China-Pakistan-Economic Corridor Projects (see 8.2.1).

Freshwater resources in the KRB are also under severe threat from climate variability and change which has resulted in droughts and floods in the recent past. The KRB is predominantly fed by the Hindukush glaciers which are vulnerable to earthquakes and the negative impacts of climate change and weather variability. Changes in the melting of glaciers or climate variability can also directly influence freshwater resources.

Table 6.2: Driver of freshwater challenges at transboundary level in the KRB

Direct Drivers	Key References
Agriculture development (e.g., commercial agriculture practices including animal husbandry, the extractive sector and water use in energy)	Lashkaripour and Hussaini 2008; Mack 2010; F. Akhtar 2017
Industry (including services and infrastructure)	Nafees 2004; Rasouli et al. 2015; Akhtar 2017
Demographic shifts (i.e., migration, population growth, increase in population density, urbanisation)	Paula Hanasz 2011; Akhtar 2017; Najmuddin, Deng, and Bhattacharya 2018
Indirect Drivers	
Political dynamics between states (e.g. on Durand line)	Mack 2010; Paula Hanasz 2011; Pervaz and Khan 2014; Najmuddin, Deng, and Bhattacharya 2018
Culture and ethnic elements (attitudes regarding inefficient use of resources as well as behavioural approaches towards water access and allocation, etc.)	Lashkaripour and Hussaini 2008; Frischmann 2012; Pervaz and Khan 2014; Shroder and Ahmadzai 2016; UNAMA 2016
Non-water-related policies (land tenure and land use planning, economic development, food security and agriculture, China-Pakistan Economic Corridor related projects)	D'souza and Jolliffe 2013; Gohar, Ward, and Amer 2013; The World Bank 2014; Najmuddin, Deng, and Bhattacharya 2018
Economy (economic growth)	Qureshi 2002; Kawasaki et al. 2012; Habib 2014; Ahmadzai and McKinna 2018
Poverty	Lashkaripour and Hussaini 2008; Akbari et al. 2008; King and Sturtewagen 2010; Mack 2010; Frischmann 2012; Kakakhel 2017
Technological advances (agriculture intensification)	King and Sturtewagen 2010; Ghulami 2017; F. Akhtar 2017; Najmuddin, Deng, and Bhattacharya 2018
Global trade (e.g. trade in virtual water or 'globalisation')	Lashkaripour and Hussaini 2008; Renner 2010; King and Sturtewagen 2010; Vick 2014a
Natural change and variability in weather, Droughts; Floods; Earthquakes; Landslides, tectonic movement	Ahmad 2010; Vick 2014a; Shroder and Ahmadzai 2016; Akhtar 2017; Masood and Mushtaq 2018; Iqbal et al. 2018; Akhtar et al. 2018

6.5 EVOLUTION OF TRANSBOUNDARY LEVEL INSTITUTIONS AND PRACTICES IN THE KRB

6.5.1 Overview of Transboundary Level Institutions and Practices in the KRB

Both Afghanistan and Pakistan are facing severe security and governance issues which can hinder their future development and growth prospects.¹⁸ In the last two decades, relations between the two neighbours has been marred by acts, rumours and cross-border incursions (Pervaz and Khan 2014; Thomas et al. 2016). The current geopolitics in the region along with the existing issues of extremism, intolerance, violence, cross-border terrorism, and the deteriorating security situation make bilateral relations worse (Pervaz and Khan 2014; SIWI 2015). Both states face common issues of population increase, urbanisation, food and energy security, economic growth and agricultural productivity, but securing and utilising freshwater resources in efficient ways can be the key determinant to achieving social, ecological and economic well-being as well as peace and stability (Majidiyar 2018; SIWI 2015). The significance and importance of freshwater resources of sufficient quality and quantity makes the Kabul River an important transboundary resource (Habib 2014; Kakakhel 2017). Due to the non-existence of formal mechanisms, freshwater resources in the KRB are currently shared based on historic patterns. However, the future development of such sharing could take into account international customary water law (see 5.2.2), religious water practices (see 5.2.3) and/or be inspired by global rules including the 1992 UNECE Water Convention 1992, UN Watercourses Convention 1997, ILC Draft Articles 2002 and the Sustainable Development Goals 2015 (Lead Pakistan 2017; Pervaz and Khan 2014). While neither country is party to the two international water law treaties, both Afghanistan and Pakistan have ratified the binding global agreements on biodiversity (UNCBD 1992), climate change (UNFCCC 1992), and desertification (UNCCD 1994). The normative obligations arising from water and related agreements could provide inspiration for developing transboundary water governance on the Kabul.¹⁹

There have been various efforts by concerned ministries and authorities in both countries to formalise freshwater governance in the KRB. These efforts include: the 2003 meeting between Pakistan's federal flood commission and the Ministry of Energy and Water (MEW) in Afghanistan to share flood related data where talks collapsed due to lack of information and data sharing; the 2005 discussions between the Water and Power Development Authority (WAPDA) Pakistan and the Provincial Government of Khost in Afghanistan regarding joint hydroelectric power which is yet to be implemented; the 2006 World Bank initiative to draft a Pak-Afghan transboundary agreement over the KRB; the 2009 Islamabad Declaration to further regional collaboration; the 2013 discussion between Afghanistan and Pakistan's finance ministers related to finance for a joint-power project on the Kabul River; the 2014 Afghanistan-Pakistan Joint Chamber of Commerce (APJCC) pledged to develop a joint hydropower-sharing agreement on the Kabul River; the 2014 discussions for a

¹⁸ Interviewee 1, 40

¹⁹ Interviewee 51, 59

proposed formal KRB governance structure including the World Bank as well as foreign ministries of Afghanistan and Pakistan in Dubai; the 2015 meeting in Dubai, organised by the Global Water Partnership (GWP), for academia, practitioners, experts, and engineers from Afghanistan, India and Pakistan to improve cooperation in combating climate change in the Himalaya-Karakoram-Hindukush (HKH) region; the 2015 trilateral meeting between Afghanistan, China, and Pakistan for a proposed 1500 megawatt joint hydropower project; and the 2015 meeting between MEW-Afghanistan and the climate change ministry in Pakistan to cope with Glacial Lake Outburst Floods (GLOF). For the evolution of formal/informal transboundary-level water governance frameworks in the KRB, along with their included principles, see Figure 6.2 which shows the accumulated inclusion of different categories of principles over different eras. Similarly Figure 6.3(a) presents the number of adopted principles for each category over time; Figure 6.3(b) explains the trends of different categories of principles over time; and Figure 6.3(c) presents the actual progress and regress of different categories of principles over time.

6.5.2 Water Governance in the Colonial Era

Before the creation of Pakistan in 1947, the whole KRB was an integral part of the Kingdom of Afghanistan (Kaura 2017; Kayathwal and Kayathwal 1994; Omrani 2009). Freshwater governance in the KRB gradually emerged from traditional irrigation practices as well as principles of Islam which were merged with modern conceptions of water management during the British colonialisation in India (Abderrahman 2000). The 2,430 km (1,510 miles) long Durand Line was created in 1896 between Afghanistan and the British India by the colonial administration to reduce the spheres of influence of both countries and improve bilateral relations including trade in the region (Kaura 2017; Omrani 2009). The Durand Line cuts through the Pakhtun tribal areas, politically dividing not only humans but also the natural resources including land and water.²⁰ According to some scholars (Kayathwal and Kayathwal 1994; Omrani 2009; Walker 2011) having geopolitical and geostrategic perception, the Durand Line is still termed as one of the most unsafe borders in the world in terms of ideological-based ongoing conflicts. Pakistan inherited the 1893 Durand Line agreement and the subsequent 1919 Treaty of Rawalpindi. Both Kabul and Islamabad never signed a formal agreement or ratification regarding border issues (Janjua 2009; Biswas 2013; Yousafzai and Yaqubi 2017) nor on water resources in the KRB (Ahmad 2010; Azam 2015; Kakakhel 2017). Pakistan claims that agreements passed on to successor states remain valid and do not need to be renegotiated as per the principle of *uti possidetis juris* (UPJ)²¹ (Biswas 2013; Brasseur 2011; Omrani 2018; Warraich 2016).

Throughout the history of the KRB, only two formal transboundary water governance frameworks were created by British Colonialists which have no legal enforcement since the partition of India. One of these two frameworks was the 1873 Frontier Agreement between British-administered

²⁰ Interviewee 10, 12

²¹ *Uti possidetis juris* or *uti possidetis iuris* (i.e., 'as you possess under law') is a principle of customary international law that preserve the boundaries of colonies emerging as States. The policy behind the principle has been explained by the International Court of Justice (ICJ) in the Frontier Dispute between Burkina Faso and Mali.

Afghanistan and Russia on the Amu Darya Basin, although this agreement was not directly linked to the KRB but lay the foundation for transboundary water governance with the inclusion of the sovereignty principle to treat transboundary rivers as international boundaries. However, at that time no agreement was made regarding a water resource sharing mechanism. The 1873 agreement led to another treaty between British-India and the Afghan Government in 1921. Although its reference to water was very limited, there was a clear water utilisation mechanism (SIWI 2015; Saeed, Hassani, and Malyar 2016). This treaty comprised of 14 Articles and 2 Schedules and was valid for three years from the date of signing. According to Article 2 of the treaty, the British Colonialists agreed to permit the residents of Torkham (a border village and crossing point between Afghanistan and Pakistan) in Afghanistan to draw water through a pipeline (Treaty 1921: Art. 2). In return, Afghanistan would allow the British officers and tribesman to utilise the water resources of Kabul River for navigation and sustain the current irrigation rights (Favre and Kamal 2004).

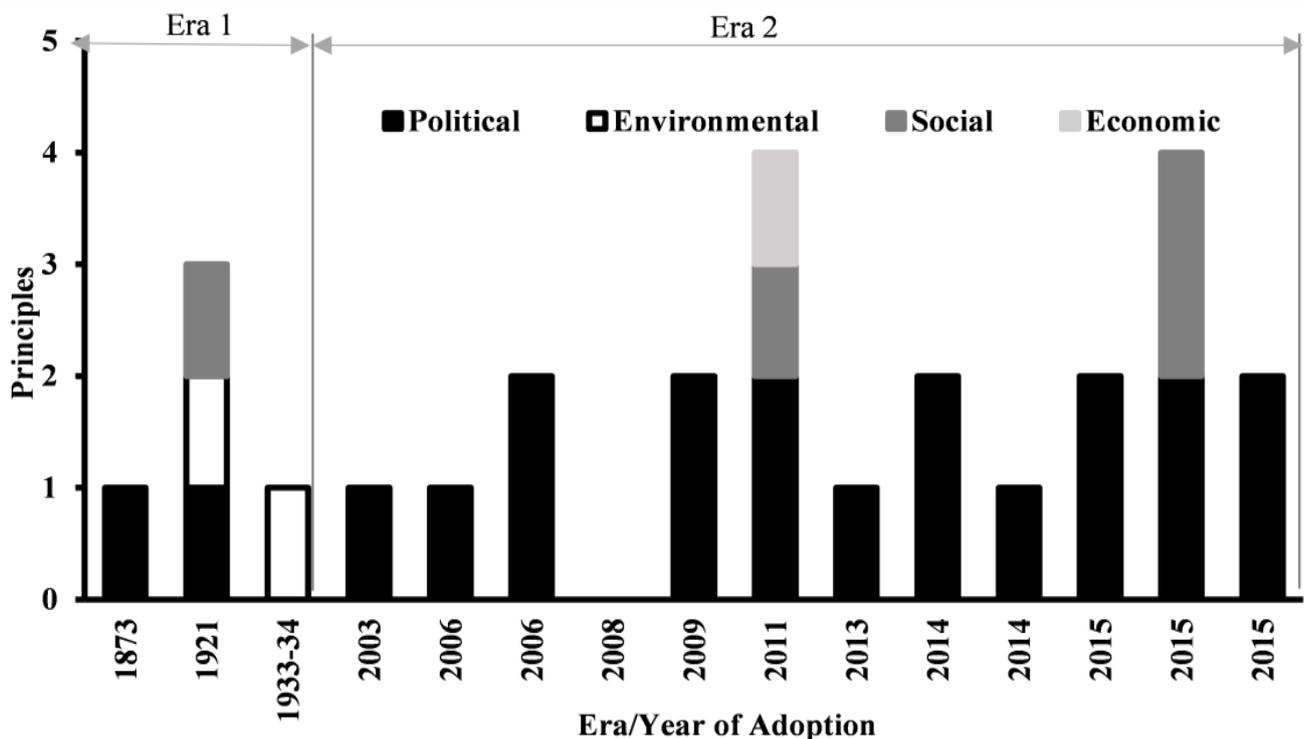


Figure 6.2: Evolution of water governance in the KRB (accumulated)

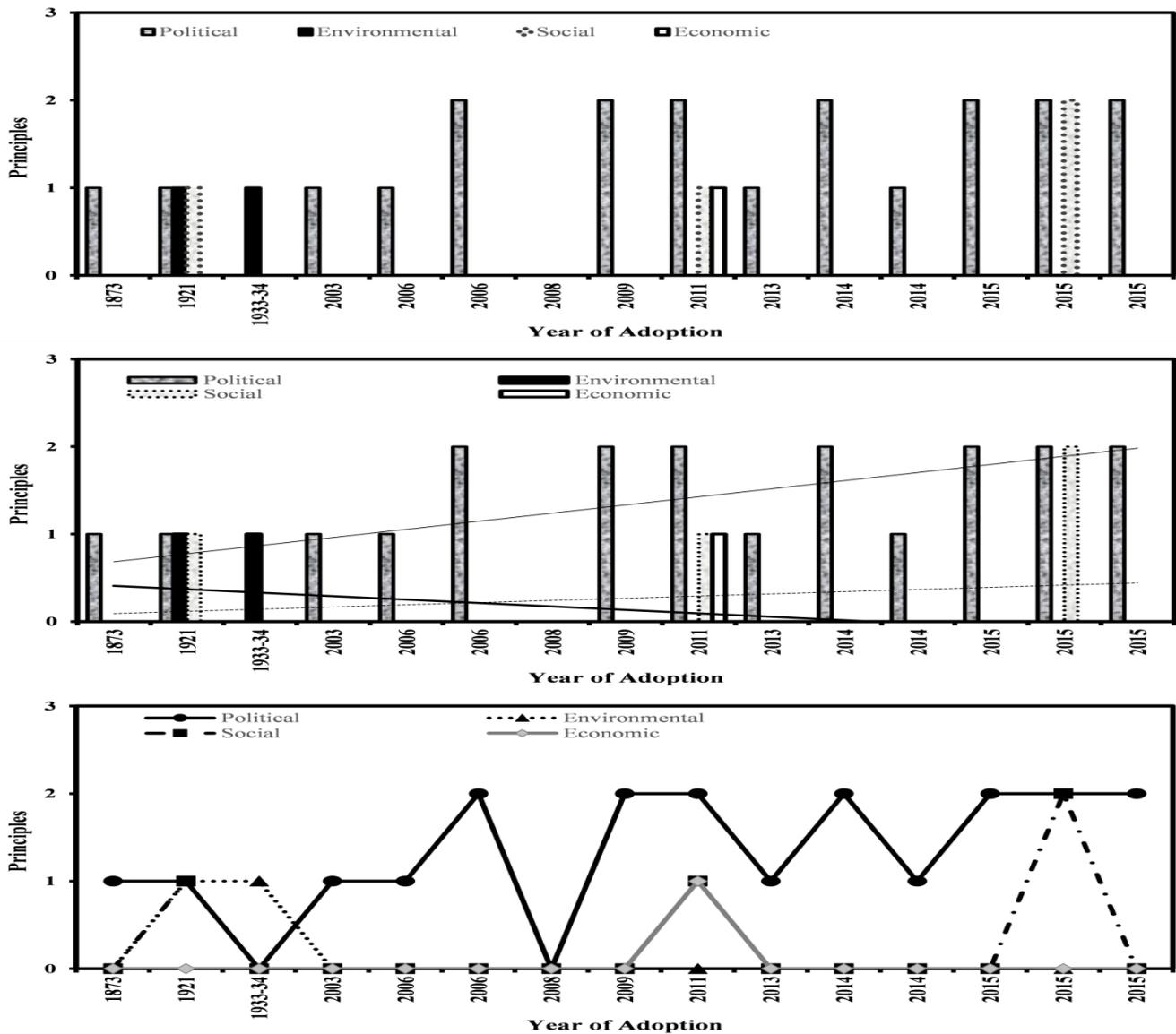


Figure 6.3: (a) Number of included principles (b) overall progress (c) trend analysis

6.5.3 Water Governance Practices in the Modern Era

Since 2000, Afghanistan, Pakistan, and the international community have been struggling to formalize water governance in the KRB.²² The creation of Water Sector Strategies (WSS) in 2000 by Afghanistan was such an effort to initiate transboundary water cooperation in the KRB with Pakistan. This effort eventually gave birth to the Kabul River Basin Council (KRBC) which provided an opportunity to build capacities of water professionals and improve various issues within Afghanistan (such as allocation and distribution, monitoring water quality and quantity and

²² Interviewee 1

enhancing storage) before going for transboundary collaboration.²³ In 2003, the federal minister of Pakistan for Water and Power also proposed an idea to Afghanistan's Ministry of Foreign Affairs for a possible Kabul River Treaty to efficiently and peacefully utilise shared water resources. However, Afghanistan declined this offer because it lacked technical and financial capacities to sign a bilateral treaty with Pakistan (Kakakhel 2017; Vick 2014b). In 2004, Pakistan restated an offer for a transboundary agreement over the KRB, enabling them to make long-term water availability projections (Kakakhel 2017). In 2006, USAID actively supported the idea of formally sharing water resources in the KRB and initiated dialogues between the two neighbours. In 2006 the World Bank also offered to arbitrate a dialogue over water issues between Afghanistan and Pakistan, but it was not successful as the Afghan officials refused to collaborate or share water-related data.²⁴

The Islamabad Declarations in 2009 were also an attempt to strengthen bilateral relations, but collaboration has not materialised in the water sector. Technical water experts from Afghanistan who were present at the time confirmed that as per the State's policy it was not possible to share any hydrological data, joint flood-protection strategies or joint dam feasibility studies with any of its neighbours.²⁵ After several meetings, the World Bank offered to make the Kabul River Basin Management Commission (KRBMC) functional in 2011 for conflict resolution and Kabul River joint management. The core purpose of making KRBMC functional was to enhance collaboration, build institutional capacity, initiate water-related data sharing, and use the hydraulic, hydrological, and economic modeling to improve the Kabul River management plan (Ahmadzai and McKinna 2018; Burki 2013). This idea was inserted within World Bank funded capacity-building projects in Afghanistan, such as the Afghanistan Water Resources Development (AWARD) project (The World Bank 2016a). The Government of Pakistan has urged the US and World Bank time again to mediate dialogues over water sharing in the KRB to draft an agreement or at least develop an information sharing mechanism to avoid potential disputes over shared water resources (Ahmad 2010; Kakakhel 2017; SIWI 2015).

In August 2013, the federal finance ministers of both countries signed a Memorandum of Understanding (MoU) to mutually develop a hydropower project on the Kunar River (SIWI 2015; Malyar 2016; Saeed, Hassani, and Malyar 2016), however it is yet to be implemented. Similarly, the water and foreign affairs ministries of both Afghanistan and Pakistan were invited to Dubai by the World Bank in late 2014 to mutually develop techniques for exchanging water-related data as well as water allocation mechanisms in the KRB.²⁶ However, a follow-up meeting has not yet been called. A trilateral meeting in 2015 was conducted between Afghanistan, China and Pakistan in Kabul where China agreed to finance a joint hydropower project of 1500 megawatt on the Kabul River. However, progress has been slow, and despite multiple attempts, officials from both countries

²³ Interviewee 40, 43

²⁴ Interviewee 6, 16

²⁵ Interviewee 2, 3, 15, 23

²⁶ Interviewee 42, 50.

have failed to operationalise this initiative.²⁷ During a UNDP-hosted event in 2015 in Islamabad, MEW Afghanistan and the Ministry of Climate Change in Pakistan agreed to collaborate in GLOF²⁸ related flood events. Similarly, in June 2016, the Chief Executive of Afghanistan, Abdullah-Abdullah, expressed his interest to formalise water sharing in transboundary river basins with Afghanistan's neighbours so that all riparian countries can benefit. During the event, the Chief Executive expressed a vision for Afghanistan to enhance its water storage capacity.

Currently, in business-as-usual scenarios, Afghanistan only consumes 25% of the surface water and less than 30% of groundwater resources in the KRB under the informal governance structure (Malyar and Hearn 2014). Furthermore, Afghanistan has a very limited water storage capacity (i.e., approximately 100-110 m³/capita/year - one of the lowest in the world), limited hydropower generation, and aims to expand irrigated land and irrigation networks (IUCN 2013; Malyar 2016; Hessami 2017; Jain 2018). On the other side of the border, Pakistan is over-exploiting water resources. Pakistan's groundwater extraction rate far exceeds the average recharge. Similarly its water withdrawal to water availability ratio is 77% (IUCN 2013; Saeed, Hassani, and Malyar 2016). There are visible imbalances between the two countries in many other fields, such as Pakistan's greater technical expertise (human capital); institutional capacity; water-related data; security challenges; public participation; and awareness about customary international water law. Afghanistan lacks capacities and resources in all these fields. Both face problems due to funding limitations; water flow and quality challenges; and competing stakeholders in transboundary waters (Kakakhel 2017; Thomas et al. 2016; Vick 2014b). In addition, various existing and potential challenges persist that may complicate transboundary water issues in the KRB, such as population growth, increasing urbanisation and industrialisation on both sides, climate change and the zero-sum mind-set in the region with absolute winners and losers (Ahmad 2010; Vick 2014b; Kakakhel 2017). The evolution of both informal and formal governance frameworks which have references for the transboundary Kabul River or its tributaries are provided in Annex G.

Currently there is no formal mechanism of transboundary water governance in the KRB between Afghanistan and Pakistan (Ahmad 2010; Vick 2014b). The 1921 Treaty between Afghanistan and Great Britain was the only applicable bilateral treaty in the KRB but it was not specifically a water treaty. According to this Treaty, the British Government allowed the residents of the border village of Tor Kham to take water through a pipe for domestic use. Responding to the British offer, Afghanistan also allowed British officers and tribesmen to navigate and preserve the existing irrigation rights in the Kabul River (Favre and Kamal 2004; SIWI 2015). Both Afghanistan and Pakistan have been trying since the Taliban decline to discuss a mechanism concerning water sharing in the KRB (Aziz 2013; Thomas et al. 2016; Vick 2014b). However, this has not been successful despite the support of the international community. In 2003, friends of both Afghanistan and Pakistan drafted a treaty between Afghanistan and Pakistan in the KRB via a joint technical

²⁷ Interviewee 33, 46.

²⁸ Interviewee 7, 11.

committee but all attempts were unsuccessful due to mistrust and lack of sharing data.²⁹ The World Bank once again offered support in 2006 to start negotiation over the water sharing in the KRB but their efforts were not successful.³⁰ Advances were made at a high level meeting in 2013 when the then President of Afghanistan, Mr. Hamid Karzai and Prime Minister of Pakistan, Nawaz Sharif signed an engagement to discover options for mutually developing the Kunar tributary of the Kabul River for hydropower generation. However, details of this agreement were not clear and therefore very limited progress was made since the announcement.³¹

6.6 GOALS, PRINCIPLES AND INSTRUMENTS

6.6.1 Goals of Transboundary-level Freshwater Governance Framework in the KRB

There is no formal regulatory framework at transboundary level in the KRB, which means there are no goals on social and ecological inclusion at this stage which can be achieved. To set up such goals there is a need to design an institution at the transboundary level by establishing a river basin commission, and developing a water allocation/distribution mechanism and the inclusion of relevant principles and instruments.

6.6.2 Governance Principles at Transboundary Level in the KRB

This section identifies governance principles in the existing and former practices to operationalise the fifth component of the conceptual framework (section 2.6). Furthermore, based on the content analysis, literature review, and interview data, it also analyses governance principles. In line with my conceptual framework I have explained and discussed the key principles (see 5.3) under three main categories of inclusive development: (a) political principles (see 5.3.1), (b) social-relational principles (see 5.3.2), and (c) ecological principles (5.3.3). Table 6.3 shows which of the relevant principles for transboundary water governance are currently applicable to the KRB.

²⁹ Interviewee 2, 10.

³⁰ Interviewee 13.

³¹ Interviewee 3, 17, 18, 45.

Table 6.3: Major principles and instruments the transboundary water

	The 1873 Frontier Agreement	The 1921 Agreement between Afg. & Russia	The 1933 Kunar Agreement	The 2003 dialogues for Proposed KRB Treaty	The 2006 Discussions for Joint Hydro-power	The 2006 World Bank Sponsored Dialogues	The 2008 Kunar Cascade Dams Project	The 2009 Islamabad Declaration for KRB	The 2011 Proposal for KRBMC	The 2013 Discussions for Joint Hydropower	The 2014 Joint Hydropower Over Kabul River	The 2015 Regional Stakeholders Meeting	The 2015 China Proposal for Joint Hydropower	The 2015 Discussions on GLOFs Events
Political Principles														
Information Exchange														
Warning about Emergency Situations														
Warning about Proposed Planned Measures														
Duty to Cooperate														
Dispute Resolution														
Limited Territorial Sovereignty/ No Harm														
Environmental Principles														
Basin as the Unit of Management														
BATT														
Conjunctive Use of Water														
EIA														
Invasive Species														
Monitoring														
Prevention of Pollution														
Precautionary Principle														
Protected Areas for water														
Protected Recharge & Discharge Zones														
Ecosystem Protection & Preservation														
Polluter Pays														
Social Principles														
Capacity Building														
Equitable & Reasonable Use														
Human Right to Water & Sanitation														
Intergenerational Equity														
Poverty Eradication														
Prior Informed Consent														
Usage Priority														
Public Access to Information														
Public Awareness &														

framework to address water issues. My analysis of direct (agriculture, industry, demographic shifts) and indirect drivers (political dynamics, culture, non-water policies, economic growth, poverty, technological advances, trade, and natural changes) shows that these are difficult to be addressed through the current practices in the KRB and governance principles in the existing frameworks. However, the analysis of global institutions (Chapter 5) indicates that there are a variety of applicable instruments (e.g. in UNWC and UNECE) to address a majority of the identified drivers, and can provide building blocks and guidelines for working towards a cooperation mechanism within the KRB. Moreover, the unaddressed principles are covered by the SDGs, which are universal, if both the countries are committed towards achieving these goals based on their national development priorities. The SDGs and other global institutions can provide an effective basis for working towards a transboundary water sharing mechanism since the SDGs have a specific water related goal (Goal 6) with a target on transboundary water sharing. Although the SDGs are voluntary and not binding, less developed countries have incentives to achieve these targets with the support from international cooperation. The SDGs and global water law instruments (e.g. in UNWC and UNECE) can inspire the design of a treaty for transboundary cooperation to accomplish the objectives of inclusive and sustainable development.

6.7 POWER ANALYSIS OF THE KRB RIPARIAN STATES IN TERMS OF GEOGRAPHIC AND THREE ELEMENTS OF POLITICAL POWER

6.7.1 Introduction The section compares and analyses the power dynamics of Afghanistan and Pakistan in the context of the KRB. Power not only drives riparian states of a shared river basin towards hostility but it also influences the transboundary institutional architecture (Zeitoun and Mirumachi 2008). The role of power in influencing Pak-Afghan water relations can be analysed by considering the four key elements of hegemonic struggle (see 3.4), while the influence of power over the institutional context can be analysed in terms of donor driven policies in the KRB. According to the literature on hydro-hegemony, four basic elements of power (i.e., material, geographic, bargaining, and ideational) influence power asymmetries and the making of a hydro-hegemon. The strength of each element matters and adds to the collective power of a country. The power play between Afghanistan and Pakistan is discussed below followed by highlighting the role of donors in power play.

6.7.2 Afghanistan and Pakistan

- a. Geographic Power:** Afghanistan is the upstream riparian and located at the top of the Kabul River watershed, with two main tributaries, the Panjshir and Ghorband rivers, including a number of glacier and snowbank water sources in the Hindukush located to the north of Kabul City; and the Logar River, having its sources in the Paghman Mountains and Kohi Baba Ranges to the west of Kabul (Shroder and Ahmadzai 2016; The DAWN 2018; Akhtar 2017; The World

Bank 2010).³² However, Afghanistan does not possess the headwaters of the Chitral and Kunar tributaries of the KRB which is located in Pakistan (Kakakhel 2017). The important Swat River tributary to the Kabul River originates and ends within Pakistan's territory (Kakakhel 2017; Khuram et al. 2017). Although Afghanistan has much of the discharge of the Kabul River within its borders, Pakistan is considered to be an upstream hegemon of the Chitral River, which is one of the main sources of the Kunar River tributary to the Kabul River located within Afghanistan (Kakakhel 2017; Sedeqinazhad et al. 2018; Shroder and Ahmadzai 2016). The Chitral River then, is also a main water contributor to the lower Kabul River through the Kunar tributary, which gives Pakistan some important geographic power over the Kabul River system as well (Sedeqinazhad et al. 2018; Shroder and Ahmadzai 2016). In addition to the Chitral-Kunar tributary, Pakistan also has the entire drainage system of the Swat tributary to the Kabul River drainage basin (Kakakhel 2017; Iqbal et al. 2018), which adds additional water into the system and more positional geographic power to Pakistan. This creates some kind of balance in geographic power.

- b. Material Power:** The material power of Afghanistan is very low in the region because it has been engaged in war and near-constant insurgency for three decades leading to low capacities and capabilities particularly in the water sector (Shroder and Ahmadzai 2016). Various indicators of material power reveals Afghanistan's low material power including a low literacy rate, low technical capacity, low population, low GDP per capita, as well as a limited number of combat troops (The World Bank 2016b). However, it is financially and politically supported by India, USA, most of the NATO countries within the UN system, as well as the World Bank and other important donor agencies³³. In comparison to Afghanistan, the material power of Pakistan is quite high where it has technological and military competencies, nuclear power, a stronger educational base about water, a comparatively strong and stable economy, as well as more political and financial support in Southwest Asia than Afghanistan (Majidyar 2018; Shroder and Ahmadzai 2016). Therefore, in terms of hydro hegemony, Pakistan's influence must be viewed as objectively high in comparison to Afghanistan.³⁴
- c. Bargaining Power:** The bargaining power of Afghanistan is comparatively low except for its position as the upper riparian in the KRB. Afghanistan has minimal water infrastructure compared to Pakistan (Hessami 2018; Salahuddin 2010; Shroder and Ahmadzai 2016). Pakistan has been utilising the water resources of the Kabul River for a long time (Ahmadullah and Dongshik 2015; Kakakhel 2017; Thomas 2014). Therefore, a potential reduction of water supplies in Pakistan because of dam construction in Afghanistan would certainly upset Pakistan (Shroder and Ahmadzai 2016). Besides manipulation by Pakistan there are various other factors that contribute to the lack of water sector development in Afghanistan including the four decades of ongoing ideological-based insurgency, lack of investment in the water sector, as well

³² Interviewee 5

³³ Interviewee 1

³⁴ Interviewee 25

as low capacity.³⁵ Comparatively, Pakistan has advanced knowledge about the the rules of the water game because of its bargaining with India over water sharing in the Indus River Basin since its partition in 1947 (Shroder and Ahmadzai 2016). It is better able to set the agenda for negotiations, work with complex negotiations, provide incentives to encourage the weaker party to comply, and to apply influence by associating non-water issues to regional security or other areas.³⁶ In terms of hydro hegemony, this provides enhanced power.

d. Ideational Power: Afghanistan would probably be proficient to enforce particular ideas and narratives about water in the region (Shroder and Ahmadzai 2016). The issue of the Durand Line and the self-constructed ideology of ‘Greater Pakhtunistan’ is used by Afghanistan to balance its power relations with Pakistan (Gall 2014). Afghanistan could argue that it has been cheated by its neighbours, Iran and Pakistan, who used the waters to their own benefit while Afghanistan was facing security challenges (Mashal 2012; Salahuddin 2010). No substantive ideas about water seem to be emerging in Afghanistan, other than the worrisome factor that Pakistan might have been able in some fashion to ban Afghanistan from being able to develop its water resources (Mashal 2012; Hanasz 2017; Hessami 2017). At the present time in Pakistan, many water statistics are low-level state secrets, which is a negative form of ideational power.

This shows that Afghanistan has more geographic power, but Pakistan has more of the other forms of power (see Table 6.4). Pakistan can promote hegemonic stability in the region in a positive way by assisting Afghanistan in the construction of dams and other power generation projects. This can also be done with channelling assistance from China (King and Sturtewagen 2010; Vick 2014b). It is also important that Pakistan uses its influence to control the Taliban insurgency. After the Taliban murdered children of the Army Public School in Peshawar, the Government of Pakistan increased pressure through its strong military spy agency-ISI³⁷ to control the Taliban. However, due to historical reasons of cross-border militancy this is quiet a challenge.³⁸ Pakistan needs to look toward Afghanistan in a less colonialist or materialistic manner and more in a developmentally helpful and kind way to support Afghanistan in irrigation development, hydrpower generation, and flood control. This will most probably be helpful in achieving a more legitimate collaboration.³⁹ However, this is yet to happen.

³⁵ Interviewee 32, 33, 38

³⁶ Interviewee 10, 11, 16

³⁷ ISI is the military spy agency of Pakistan, responsible for collecting, processing, and analysing information concerning national security

³⁸ Interviewee 10, 11, 19, 33

³⁹ Interviewee 8, 9, 25, 30

Table 6.4: Relationship between geographic power & elements of political power in the KRB

		Elements of Geographic Power			
		Elements	Afghanistan (Upstream)	Pakistan (Downstream)	River length & drainage area
Elements of Political Power	Material	Economy	Low GDP per capita	Higher GDP	Pakistan’s full control over the Chitral & Swat tributaries have enhanced irrigated areas which increase its GDP
		Military	Negligible, no causal relationship	Negligible, no causal relationship	Negligible, no causal relationship
		Population	Negligible, no causal relationship	Negligible, no causal relationship	Negligible, no causal relationship
		Technology	Negligible, no causal relationship	Negligible, no causal relationship	Negligible, no causal relationship
		Pol. Stability	Negligible, no causal relationship	Negligible, no causal relationship	Negligible, no causal relationship
	Bargaining	Strategic relations with powerful states	Financial and political backing from the US, India, and most of the NATO countries; support from the UN agencies and the World Bank, Minimal water infrastructures, proposed dams’ construction The lack of water sector development	International political and financial support and skilled in knowing the rules of the water game due to Indus Waters Treaty	Negligible, no causal relationship
		Power of ideas	Due to lack of technical capacity no water/climate information can be gathered to shape ideas and norms of downstream riparian	In Pakistan, numerous statistics about water are low-level state secrets; Influence over non-actors in Afghanistan	Negligible, no causal relationship
	Ideational				

6.7.3 Donors’ Influence and Institutional Context

The current political will and struggle of both Afghanistan and Pakistan to initiate collaboration in the KRB can be a window of opportunity for both countries (Kakakhel 2017; Kerry et al. 2011; Pervaz and Khan 2014; Price 2014; Razzaq 2018). According to the UN-Water (2012) report, the political will of States, at all geographic levels, is the primary condition for successful transboundary water cooperation. The international community and donors cannot foster cooperation or influence dialogues unless there is political will and interest of the governments themselves (Hanasz 2017). Indeed, it is vital for improved governance of water (Vogtmann and Dobretsov 2006). In the last two decades, the international community and donors’ involvement in Afghanistan is exceptional (Bjelica and Ruttig 2018; European Commission 2012). Donors such as the World Bank, Asian Development Bank, USAID, European Union, GIZ and USAID are already prioritising transboundary water related work in Afghanistan. The World Bank has already shown considerable interest in the KRB to bring Afghanistan and Pakistan closer to each other through bilateral dialogues and negotiations. For instance, studies like the

‘Investment Plan for the Kabul River Basin (2013)’, and ‘Scoping Strategies Options for Development of the KRB (2010)’ are some of the efforts by the World Bank.⁴⁰

Donor organisations can potentially remove various important barriers which obstruct interstate cooperation.⁴¹ In addition, they can encourage riparian states to view cooperation as a win-win situation (Mostert 2005). Donors have access to a diverse range of techniques which can be utilised for improved transboundary water governance e.g., building capacities of riparian states, exchange of expertise, conditional funding, loans and debt relief, financial support for non-water related activities, direct intervention, convening, facilitation and mediation (ibid). Donor organisations can develop consent, outline the negotiating agenda and create a problem-solving atmosphere (Mostert 2005; Yasuda et al. 2017). Keeping all these tools and mechanisms in mind, donors have much to offer in the KRB (as UNDP did in the Mekong River negotiations, and the mediating role of World Bank in the Indus River), be it the provision of technical expertise, financial support for infrastructure development or assisting dialogues between Afghanistan and Pakistan to foster collaboration. Currently, there are more transboundary focused efforts by donors in Afghanistan than before, which can ultimately bring Afghanistan closer to its co-riparian States. Donors have initiated various capacity building programmes to train Afghan officials in transboundary water management and in strengthening transboundary water institutions.⁴²

The initiation of bilateral dialogues between Afghanistan and Pakistan by donor agencies can play an influential role in making the transboundary governance framework work (IUCN 2013; Malyar 2016; Thomas et al. 2016; Vick 2014b). Due to the institutional capacity and experience of arbitrating the 1960 Treaty in the Indus Basin (of which the Kabul River is a tributary), the World Bank might have the ability to facilitate another bilateral agreement between Afghanistan and Pakistan in this Basin or include Afghanistan as a party to the existing IWT. In addition to the formal support by donor agencies, there are activities that could further help the understanding of transboundary water issues between Afghanistan and Pakistan. For instance, some joint studies on transboundary waters by Afghan and Pakistani experts are conducted by Heinrich-Bol-Stiftung (HBS) (Saeed, Hassani, and Malyar 2016), and the International Water Management Institute’s media dialogues (IWMI 2016) has been held. These activities allow experts from both countries to work together and understand each other’s needs, challenges and limitations. Some of these activities have already happened while some are under consideration.⁴³ Furthermore, the World Bank funded an initial scientific study which revealed that development in the upper KRB would have limited impacts on Pakistan, as there is limited potential for irrigation development, and Afghanistan’s needs are more related to hydropower projects (Frischmann 2012) which generally involves the non-consumptive use of water. One of the opportunities therefore is to show that development and benefit sharing can occur in the basin if done properly and collaboratively. This is a basin where the benefits of cooperation can outnumber the consequences of conflict. Taking into

⁴⁰ Interviewee 28.

⁴¹ Interviewee 22, 30.

⁴² Interviewee 27, 28, 43.

⁴³ Interviewee 28, 43, 48.

consideration, the existing political turmoil between Afghanistan and Pakistan, water cooperation could be an opportunity for greater regional stability (Ahmadzai and McKinna 2018; Price 2014). The spill over benefits into other areas could be significant.⁴⁴ The influence of donors supporting both Afghanistan and Pakistan can be a way forward as they have the power and resources to bring both the riparian countries to the table for dialogues. Joint initiatives of research, capacity building and institution building on water with the support of donors can build trust and enable application of Articles 5 & 6 of the Watercourses Convention on equitable and optimal utilisation in the KRB.

6.8 INFERENCES

This chapter has described and analysed the water-based relations between the two riparians of the KRB in order to answer the question of how power and institutions influence international relations between the two countries and how they obstruct or contribute to achieve inclusive and sustainable development. It has done so by i) discussing the overall political context, ii) identifying key ESS including biodiversity, iii) recognising direct and indirect drivers of freshwater challenges, and iv) providing a detailed overview of the transboundary level institutions by analysing recent and historic practices including the pre-colonial agreements.

This chapter draws four conclusions. First, there is no formal regulatory framework to equitably share the KRB water resources between the two riparians, and hence each country does what it wants in such an anarchic system. There are various issues in the KRB including: (a) issues related to water sharing as (i) Afghanistan claims more water because 80% of the Kabul River is located in Afghanistan while Pakistan's claim is based on 50% water flow contribution in the Kabul River, (ii) Afghanistan is utilising only 10% while Pakistan 90% of the Kabul River water resources, and (iii) both countries claim more water explicitly and/or implicitly; (b) issues related to quality where urbanisation, industries including mining and manufacturing, and increasing pesticide use in both commercial and subsistence agriculture is increasing pollution in the river. Although, Pakistan is utilising a major portion of the water resources in the KRB, it is worried about the future access to water as Afghanistan is planning new dams and irrigation infrastructure. The government of Pakistan thinks developing such projects would significantly affect the water-related infrastructure and economy of the already socially and politically deprived province of Khyber Pakhtunkhwa (KP). Additionally, riparian issues in the KRB are very complicated given the ongoing conflict in the basin and the Durand Line dispute between Afghanistan and Pakistan.

Second, acknowledging the variety of BESS at transboundary level within the Kabul River Basin can provide the basis for similar problem framing as well as highlight the benefits for local livelihoods. For example, the basin provides a winter habitat for migratory birds, enables soil formation (enhancing fertility) and is fed by similar sources of water in KRB (snow melt, rainfall and glacial melt), and enables hydro-power generation and holds more than 35 fish varieties. All

⁴⁴ Interviewee 10, 11, 19, 33.

these not only provide water but also nutritious food and livelihood opportunities for people across the border in both countries. Similarly, regulating services of the Kabul River include connected and improved groundwater recharge by removing nutrients and pollutants, climate regulation through carbon sequestration in the floodplains and surrounding forests. The River also provides a cultural opportunity for women to gather and do laundry on the banks of the River. These activities cause no perceptible degradation of the river as long as they do not use chemical detergents and the natural biodiversity helps assimilate these ‘wastes’. There are various famous poems and songs about the Kabul River which are sung at different local and national festivals and ceremonies.

Third, acknowledging and identifying similarities in the key direct and indirect drivers can be a first step towards addressing transboundary water issues in the KRB. Key direct driver’s include: (a) agriculture development; (b) industry; and (c) demographic shifts. In particular, agriculture in both Afghanistan and Pakistan rely on surface freshwater which is supporting the well-being of millions of people in both countries. Agriculture contributes 50% of the GDP in Afghanistan and 22% in Pakistan. The main indirect drivers of the freshwater problems in the KRB at the transboundary level are: (a) political dynamics between states; (b) culture and ethnic elements; (c) non-water-related policies; (d) economy; (e) poverty; (f) technology; (g) international trade; and (h) natural change and variability in weather. In particular, political dynamics between states is an important transboundary level driver where the Durand Line is not recognized by Afghanistan as an international border. The Durand line – apart from separating Afghanistan from British India in 1893 – also divides water resources in the KRB. It allows Pakistan to claim the water flows from the Hindukush Mountains of Pakistan. Afghanistan, on the other hand, argues that sources of the Kunar River which originate in Pakistan actually belong to them. The issue of the Durand Line also needs to be urgently resolved and this requires the establishment of a fact-finding mission by including concerned authorities and international legal experts. The political context of extremism, Taliban proxies and Pakhtunistan inhibits collaboration and is affected by water related issues between the two neighbours. The Kabul River is predominantly fed by the Hindukush glaciers which has significant threats from the climate change impacts and weather variability. The fast melting of glaciers or variability in the climate can directly influence freshwater resources.

Fourth and finally, the absence of formal institutions has enabled power politics to prevail between the two countries. While pre-colonial agreements did not deal with the allocation issue, the three colonial agreements allocated water for drinking and navigation purposes among the villages of riparian countries, but these agreements became void in 1947 after the partition of British India. In the post-colonial era there has been a return to anarchy – each country does what it wants. The analysis of power (see 6.9) and institutions (see 6.5) shows that the lack of formal institutions enables the more powerful country to behave as a hydro-hegemon. Although Afghanistan has a geographic advantage, its low capacity and resources make it less influential to exploit freshwater resources whereas Pakistan possesses higher material, bargaining and ideational power consuming about 90% of water from the KRB and is less motivated to change the status quo, which has influenced the formation of the transboundary institutional architecture significantly (Zeitoun and Mirumachi 2008). Due to these power asymmetries, Pakistan has adopted a security oriented foreign

policy agenda towards Afghanistan and India. Pakistan has been able to exclude relevant domestic actors (i.e. ministries of water, agriculture, environment, IRSA) except for defence and foreign ministries and has kept the role of international actors in Afghanistan (NATO, other donor countries) minimal in negotiations about transboundary water sharing and other socio-relational issues (Taliban proxies, Durand Line, Pakhtunistan). Sovereignty politics is practiced in the KRB by excluding the voices of the less powerful, key non-water related actors, and international and domestic actors at different levels. Inadequate attention to these actors and identified characteristics can prevent institution building and hinder the effectiveness of informal or formal water cooperation in the KRB. As a consequence, no goals on social and ecological inclusion can be achieved.