Can women-led water user groups pave the way to water integrity for improved water services delivery? A case study of women-led water user groups in Khyber Pakhtunkhwa Province, Pakistan.

A Research Paper presented by:

Sahibzada Arshadullah
Pakistan

in partial fulfilment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:

Governance and Development Policy
(GDP)

Specialization:

Public Policy and Management

Members of the Examining Committee:

Sylvia I Bergh
Farhad Mukhtarov

The Hague, The Netherlands
December 2013

Disclaimer:

This document represents part of the author's study programme while at the International Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

Inquiries:

International Institute of Social Studies
P.O. Box 29776
2502 LT The Hague
The Netherlands

t: +31 70 426 0460
e: info@iss.nl
w: www.iss.nl
fb: http://www.facebook.com/iss.nl
twitter: @issnl

Location:

Kortenaerkade 12
2518 AX The Hague
The Netherlands

Table of Contents

List of Tables

List of Figures

List of Maps

List of Appendices

List of Acronyms

CBO	Community-based Organizations
RSPN	Rural Support Program Network
SRSP	Sarhad Rural Support Program
CC	Consumer Court
ISS	Institute of Social Studies
UNDP	United Nations Development Programme
WIN	Water Integrity Network

Abstract

In this paper I have explored the under researched topic of community collective action initiatives undertaken by community-based organizations in the context of north-western Pakistan. I have particularly focused on the role of women organizations and have highlighted their struggle for improving drinking water services at consumer end and fighting corruption. In north-western Pakistan, women are restricted to the responsibilities of household chores and children rearing and are barred from playing any role in the other affairs of life including playing their part in the governance and policy arena. Despite all these barriers women in Chitral district are very active and are playing their due role in the drinking water governance and management through their participation in community-based organizations established by different local and non-local non-governmental organizations. I have particularly highlighted the legal activism of community-based organizations in the form of filling cases in the consumer courts and making government accountable for the provision drinking water services.

Furthermore, apart from the community activism and collective action, government has also provided enabling environment in the form of approving and implementing acts and laws related to accountability mechanisms including Right to Public Services (2014), Right to Information Services (2013) and Consumer protection Courts (1997). Additionally, government has also introduced other accountability mechanisms for registering complaints and grievances which has a positive impact on the overall governance and accountability environment particularly in the drinking water services.

Keywords

Water governance, water integrity, female leadership, community-based organizations, water user groups, collective action, Pakistan.


International
Institute of
Social Studies

Chapter 1 Introduction

1.1 Nature of the problem

Pakistan is currently facing a massive water crisis that has profound implications for the country's stability and security. As per a 2015 International Monetary Fund (IMF) report, Pakistan is one of the world's 36 most water-stressed countries, owing in part to the limited availability of surface and groundwater due to the country's semi-arid climate (Kochhar and IMF 2015). Rapid urbanization and conflict, combined with corruption and years of administrative and regulatory mismanagement, have left a massive proportion of the population without access to clean water. In addition, Pakistan has been affected by a changing climate, with fewer water resources available for exploitation. As a result, the per capita annual water availability in Pakistan has significantly decreased from 5,600 cubic meters in 1947 at the time of independence to the current level of 1,017 cubic meters per person per year, and is likely to decline further in the wake of current infrastructure and institutional conditions (Kochhar and IMF 2015). There are many factors which can be attributed to this significant decrease in per person, per year water availability including contamination of water (water quality issues); water losses (non-revenue water); increases in water demand due to an increasing population and welfare level; increases in water demand due to expanded industrial and agricultural activity, etc. While this can partly be attributed to dwindling water resources, the effect of water governance on water availability should also be recognized; recently, Retired Justice Amir Hani Muslim, head of Pakistan's Supreme Court-mandated commission on water quality and drainage in Sindh Province of Pakistan, blamed bad governance for the deepening water crisis, stating that the available water in the Indus River, the biggest water reservoir in Pakistan, is being contaminated by over 700 sources (Associated Press Pakistan 2018). Even though Pakistan is home to the world's largest non-polar glaciers, which form a key source of fresh water in the form of meltwater, it is still facing extreme water scarcity. Demand for water is on the rise, projected to reach 274 million acre-feet (MAF[1]) by 2025, while supply is expected to remain stagnant at 191 MAF, resulting in a demand-supply gap of approximately 83 MAF (Kochhar and IMF 2015). The implication of the failure to increase water supplies to meet a growing demand is the concrete threat of water scarcity.

In Pakistan, water crises are caused not only by physical and economic water scarcity, but also by governance shortcomings and corrupt practices. According to authors such as Tropp et al. (2017), who have examined water management practices in countries across the world, a range of different factors affect the overall effectiveness and efficiency of existing water management paradigms, including systemic institutional inefficiency, limited staff capacities, scarcity of financial resources, inappropriately set planning priorities, inadequate and poorly maintained infrastructure, and political instability. Tropp et al. furthermore state that low integrity and high levels of corruption prevalent in the water sector give a strong indication that something is wrong with the governance systems (Tropp et al. 2017). According to the 2016 Water Integrity Global Outlook Report published by Water Integrity Network (WIN), an estimated 20% to 40% of water sector funds are being lost to dishonest and corrupt practices (Das et al. 2016). The situation in Pakistan is not that much

[1] The acre-foot is the unit of volume used for the measurement of large-scale water resources. Merriam Webster Dictionary defines it as "the volume (as of irrigation water) that would cover one acre to a depth of one foot" (https://www.merriam-webster.com/dictionary/acre-foot).

different or could even be worse than the global average, as it has become a normal practice in Pakistan to pay small bribes for accessing different public services, including for access to water services. In general, as per the 2019 Investment Climate Statements Report released by the U.S. Department of State, in Pakistan corruption at the lower tiers of government is common, to the point where Pakistanis often consider it to be normal (ICS 2017). Moreover, Transparency International (TI) in its Global Corruption Report states that there is a high risk of corruption in Pakistan's public services sector (Transparency International 2017-2018).

Sustainable water governance in Pakistan is undermined by a number of inefficiencies, corruption, and institutional constraints and shortcomings culminating in the current water crisis. Like in other profitable economic sectors, the lack of integrity is also very common in Pakistan's water sector. Water management departments and delivery services are very vulnerable to corruption, and such practices had and are having dreadful consequences for sustainable, efficient and equitable water use, access, and allocation. Transparency International (TI) in its 2008 Global Corruption Report (GCR) stated that corruption is rampant in Pakistan's water sector and is affecting all aspects of the water sector, from water resources management to drinking water and sanitation services provision, irrigation and hydropower, and could be contributing to a low economic growth rate in Pakistan (Zinnbauer and Dobson 2008). TI in the same report also pointed out that the Water and Power Development Authority (WAPDA), the apex authority for governing water resources in Pakistan, is the country's second-most corrupt government institution (Zinnbauer and Dobson 2008).

The nature and scope of corruption in water sector in Pakistan varies from urban to rural areas, and the relative level of water stress in different areas of Pakistan seems to be associated with the level of corruption. For example, rural and water-stressed districts like Chitral have been subjected to high levels of corruption, which have assumed many forms. This includes bribes in obtaining water connections resulting in the inequitable distribution of water connections and political interference in the distribution of funds for water supply schemes, leading to poor-quality public, communal, and private water supply schemes. In 2014, a locally elected representative from Chitral held a press conference in which he levelled allegations of corruption related to a mega water supply project worth 360 million PKR (approximately 3.9 million USD in 2014), claiming that funds designated for the project had been funnelled to corrupt officials and that as a result infrastructure, including piping, was of inferior quality (Farooqi 2014). Another locally elected representative and member of provincial assembly from Chitral repeated these allegations, stating that "that all works done by the water supply division were of poor quality and the pipelines of the Golen water project passed through flood channels that can anytime be washed away" (Farooqi 2014: 1). On 7 July 2019, a Glacial Lake Outburst Flood (GLOF) event occurred in Chitral, damaging different public and communal infrastructure, including infrastructure belonging to the Golen water project (Deputy Commissioner Office 2019). In an official report following the event, the poor quality of the constructions and infrastructure were cited as factors that had contributed to extensive damage of infrastructure.

The corrupt practices in Pakistan's water sector also has a range of other implications, of which the most important is that water-related problems, including water shortages and poor water quality, are not being addressed. Due to a fast-growing population and associated increased sewerage disposal needs, as well as an increase in the number of industries, water quality is rapidly deteriorating. According to statistics, only about 20% of the total population in Pakistan has access to safe drinking water, while water-related diseases as a result of the consumption of untreated water are a major cause of health problems (Saleem et al. 2018). An estimated 80% of hospitalized people and one-third of total deaths occur-

ring each year are attributable to unsafe water (Saleem et al. 2018). An estimated 97,900 people die annually including 54,000 children under the age of five. caused by poor water and sanitation services (The Institute for Social Justice Pakistan 2016). Water pollution can be attributed to the exploitation of loopholes in current laws providing for environmental protection, specifically on the disposal of hazardous industrial and urban waste, in addition to the weak implementation of these laws (Azizullah et al. 2011).

Furthermore, despite the existence of a number of laws intended to inform water governance, including the 1997 Pakistan Environmental Protection Act, the 2006 National Sanitation Policy, and the 2009 National Drinking Water Policy, water resources are not governed adequately because the mechanisms for the implementation of these laws are absent (Azizullah et al. 2011). Similarly, the National Environmental Quality Standards (NEQS) for municipal and industrial discharged wastewater were introduced in 1993 but have not been implemented. In addition, several other problems persist, including a lack of coordination between relevant state departments, a lack of accountability and transparency of water-based regulatory authorities, corrupt and incompetent government functionaries, and a lack of public participation in water-related decision-making (Jabeen et al. 2015). As a result, Pakistan ranked 169th out of 178 countries on the 2018 Environmental Performance Index (EPI) developed and updated by the Yale Centre for Environmental Law and Policy, Yale University, due to its weak performance on multiple indicators[2] (Wendling et al. 2018).

1.2 Research objectives and questions

A literature review conducted for this study has indicated that the role of women-led water user groups in fighting corruption in the water sector has not been investigated sufficiently and that there is room to study the role of these organizations in promoting water integrity and accountability through legal activism in the water sector. The active involvement of women water user groups also referred to as women organizations has led to fewer cases of government officials asking for bribes or favours in return of providing access to water connection and other water related services. High number of complaints registered, and consumer court cases filed shows that these grassroot level organizations are very active on this front and trying to make government accountable in this regard.

In the 2016 UNDP Development Advocate special issue report titled 'Mainstreaming Women in the Water Sector: Old Challenges, Possible Solutions', Kamal and Hashmi state:

> "Integrating a gender sensitive approach to development and conservation of water requires an understanding of the link between gender equality and sustainable water management. However, it needs to be stated at the outset, that Pakistan's main regular demographic, economic, development and human development surveys and reports do not carry data on water and related areas disaggregated by gender to allow a trend analysis" (UNDP 2016: 15).

In several communities' women, despite facing restrictions due to the patriarchal social system, have been able to establish women's organizations that are involved in community-based water services provision and fighting corruption through collective action. This research seeks to investigate the role of such women's organizations in combating corruption in Pakistan's water sector by focusing on the Chitral district in Khyber Pakhtunkhwa Province, where corruption in the water sector is particularly rife, affecting water services provision and leading to unsafe drinking water and a lack of access to water and sanitation ser-

[2] [2] https://epi.envirocenter.yale.edu/epi-country-report/PAK

vices for the majority of the province's population. In the study area of Chitral, the rise of legal activism amongst women to hold water authorities accountable and increase water integrity has been notable. In addition, the study seeks to explore the role of women's organizations in improving water provision services at the community level, where these organizations operate, and to assess the different social accountability mechanisms put in place by the government of Pakistan.

Consequently, the study contributes both to a better understanding of ways of achieving water integrity in Pakistan's water sector and of the gender dimension related to water governance in the context of rural Pakistan. This study also contributes to an understanding of the level of activity of women's organizations in Pakistan's water sector.

The main research question derived from the abovementioned research objectives is:

To what extent and in which ways are women organizations contributing to water integrity for improved water services provision in north-western Pakistan?

The following sub-questions have been formulated to help answer the main research question:

1. What are the policy and legal institutional arrangements currently in place for drinking water governance in the rural context of northwest Pakistan, and which social accountability mechanisms are in place?

2. How and to what extent have women-led water user groups been successful in improving the provision of clean drinking water through fighting corruption and promoting water integrity in the drinking water sector of district Chitral, Khyber Pakhtunkhwa?

3. How responsive is the Pakistani government in dealing with the general public's and community organizations' complaints with respect to water-related services?

1.3 Water governance in Khyber Pakhtunkhwa

According to a 2006 World Bank report, the majority of the Pakistani population relies mainly on groundwater sources for drinking purposes. This report further states that an estimated 40 million people in Pakistan use irrigation water, which is often saline, to meet their domestic water needs, including for drinking purposes (World Bank 2006).

On the other hand, in Chitral District, the focus of this study, the majority of the population relies on surface water for their daily water needs, including drinking water. Two types of water supply schemes supply water to Chitral's population, namely gravity-based water supply schemes fed by springs and streams, and tube wells fed by groundwater. Some of these gravity-based schemes are communal, while others are owned and run by local governments and the Public Health Engineering Department (PHED). PHED is the Khyber Pakhtunkhwa government's department responsible for the provision of clean drinking water, sanitation services, and ensuring a healthy environment to the public. It is important to note that because Chitral is a mountainous region with high levels of snowfall in winter, it is prone to natural disasters including floods, landslides, avalanches, and earthquakes. For this reason, water infrastructure exposed to these hazards need to be regularly maintained and rehabilitated to keep water supply systems resilient to such hazards. Without sound water governance and water integrity, populations and water supply systems serving them are vulnerable to such hazards and to the threat of water scarcity, in particular.

Against the backdrop of water scarcity owing in part to water contamination, the importance of the researching efforts to ensure water integrity becomes evident. Regarding

the role of women in promoting and ensuring water integrity related to water services delivery is particularly important because women are the key stakeholder and has a big role to play in the drinking water services. This research through primary data collected from engagement with 10 community-based organizations (CBOs) in district Chitral therefore seeks to study the role of community-based organizations in general, and of women's organizations in particular, in ensuring water integrity. Specific emphasis is placed on the themes of corruption, equitable water distribution, litigation in consumer courts, and improving access to water and sanitation services.

A second focus of this research is the significance of the development and implementation of legislation and policies for water users' ability to hold water authorities accountable. As the research will show, the 2014 Right to Public Services Act and 2013 Right to Information (RTI) Act passed by the Khyber Pakhtunkhwa government, along with a digital system for filing water-related complaints, may also have served as mechanisms whereby the government can be held accountable and is answerable to the public, which may have contributed to the improvement of social services delivery including drinking water at the consumer end.

1.4 Drinking water services provision in Pakistan

Limited literature is available on corruption in the water sector; the role of water users and civil society organizations in fighting corruption in the context of rural Pakistan's water sector to date has received almost no scholarly attention. Thus, this section presents a brief review on literature related to corruption in public services sectors, including the water sector, and on civil society mobilization to contest and address corruption in the water sector through efforts to ensure accountability.

Jennifer Davis (2004) in her empirical research on corruption related to public service delivery in South Asia (including in Pakistan and India) finds that corruption is associated with two concomitant variables, namely the status of accountability mechanisms of public service providers and, secondly, environment about the moral dimension of corruption. Corruption in water supply departments in this region is prevalent and is manifested in the form of poor water services, demands of bribes for water-related services that water users are in fact legally entitled to, including new water connections and requests for reparations. Davis (2004) in the same study referred to above explains that water users are forced to resort to corrupt practices (bribery) to secure new water connections or to have existing connections repaired; 'speed money', as it is called in the region, is paid to ensure that water authorities prioritize water service delivery to water users willing and able to pay these bribes.

According to Transparency International, women and the poor forming the most vulnerable section of society are most often the main victims of corruption in water sector governance and are punished in an unduly manner. Poor households are twice as likely as wealthier households to be asked to pay bribes for water connections, which form a greater share of their total income in comparison to those of wealthier households (Transparency International 2008, 2013). Prakash et al. argue that women always shoulder the burden of collecting water for household use, resulting in reduced educational, economic, and social opportunities (Prakash et al. 2015). Kamal (2005) writes:

> "The tragedy of gender perceptions related to the water sector in Pakistan is that women often see themselves in ways that are directed by male dominant viewpoints, and hence think that domestic water supply is their responsibility" (Kamal 2005: 87).

She further states that the role of women in transporting water from long distances and engaging in household tasks relating to water is romanticized by writers and poets and that women's water pitchers have become part of folklore (representative of the rural image) in many parts of the world, including in Pakistan (Kamal 2005).

Daud et al. (2017) in their research on water quality and water contamination have discussed the poor quality of drinking water and its contamination in the context of Pakistan (Daud et al. 2017). Another study by Iftikhar et al. (2010) focusing on the factors behind the public demand for safe drinking water has been published by the Pakistan Institute of Development Economics (PIDE) with a focus on the Peshawar district in Khyber Pakhtunkhwa Province in Pakistan. The Pakistan Council of Research on Water Resources (PCRWR) and the US-Pakistan Center for Advanced Study in Water (USPCAS-W) are two of the main institutions conducting research on water in Pakistan, they are thinktanks and research institutions informing government policies. They have also jointly developed and published the 'National Research Agenda on Water 2016-2025' in which they have highlighted research preferences regarding Pakistan's water sector (NRAW 2016). Another research study authored by Qureshi and Hasnain explored stewardship of water resources with reference to the city of Lahore, Pakistan (Qureshi and Sayed 2014). There are also some other prominent studies published on the subject by Nabi et al. (2019) and UNICEF et al. (2017).

Finally, some national and international governmental and non-governmental organizations (NGOs), including Water Aid, the Pakistan Council of Research in Water Resources (PCRWR), the World Bank, the International Rescue Committee (IRC), ACTED International, Sarhad Rural Support Programme (SRSP) , and Agha Khan Foundation (AKF), are also actively involved in applied research on Pakistan's water sector.

1.5 Outline of the thesis

In this first chapter I have discussed the problem of water scarcity and water contamination in Pakistan in relation to institutional and governance shortcomings, including corruption and mismanagement in the public sector departments responsible for the provision of drinking water services. Additionally, I have explored the relevance and justification of this research with respect to the knowledge and research gap and have provided an overview of relevant academic literature and debates. In addition, research objectives and corresponding research questions have been presented.

The remainder of the thesis is dedicated to the presentation of the theoretical framework, research methodology, and research findings, where after the research findings are discussed. In Chapter Two, the theoretical framework applied in this study is presented. In addition, key concepts referred to in this study, including 'corruption', 'community-based organizations' (CBOs), 'civil society', and 'social accountability', are explained. Chapter Three provides an overview of the research methodology, including the way in which the study was operationalized, with reference to the research approach, epistemological positioning, and different choices that had to be made in terms of data collection. This section also explains the choice of research methods used in this study, the positionality and reflexivity of the author, and, lastly, challenges and limitations in conducting the research. In Chapter Four, research findings are presented, followed by an analysis seeking to align re-

search findings with the existing academic literature in order to make sense of the findings. Lastly, Chapter Five comprises a brief discussion of the findings, followed by a conclusion discussing policy implications of the research and presenting recommendations.

Chapter 2 Theoretical framework

Two key concepts are integrated and applied in this study, namely the 'water integrity' concept and Olson's 'collective action logic' concept. As discussed in the introduction, 'water integrity' is integral for addressing corruption in the water service delivery sector; it is assumed that promoting water integrity will help to eradicate corruption by the different stakeholders including government officials, as will be further explained below. Olson's 'collective action logic' concept is applied in this study due to its suitability to the study of collective action in community-based organizations – the core focus of this thesis. This framework will also be discussed below. Last, key concepts used in this study will briefly be explained.

2.1. Water Integrity

According to the Water Integrity Network[3] (WIN), 'water integrity' is "the honest, transparent, accountable, and inclusive decision-making by water stakeholders, aiming for equity and sustainability in water management" (Water Integrity Network 2019: 1). The four pillars of water integrity according to WIN are 1) transparency, 2) accountability, 3) participation, and 4) anti-corruption (TAPA). Two of these pillars, namely 'accountability' and 'anti-corruption', have been used in this study to explore the role of CBOs, with a focus on the case of women's organizations in northwest Pakistan, in ensuring water integrity amid water scarcity and other social variables, including social norms such as cultural restrictions affecting women's opportunities and activities.

Additionally, the Organization for Economic Co-operation and Development (OECD) in its Principles on Water Governance has listed water integrity as Principle 9 ("[m]ainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making") (OECD 2018: 27) According to the OECD, the abovementioned principles provide "a framework to understand whether water governance systems are performing optimally and help to adjust them where necessary" (OECD 2018: 19). 'Water integrity' according to the OECD's set of principles can be achieved by:

"a) Promoting legal and institutional frameworks that hold decision-makers and stakeholders accountable, such as the right to information and independent authorities to investigate water related issues and law enforcement;

b) Encouraging norms, codes of conduct or charters on integrity and transparency in national or local contexts and monitoring their implementation;

c) Establishing clear accountability and control mechanisms for transparent water policy making and implementation;

[3] WIN is a non-profit organization founded by IRC, SIWI, Swedish Water House, Transparency International, and the World Bank Water and Sanitation Programme in 2006 to respond to increasing concerns among water and anti-corruption stakeholders regarding the impact of corruption in the water sector. Formerly hosted by Transparency International, WIN is now formally an independent association since January 2014.

d) Diagnosing and mapping on a regular basis existing or potential drivers of corruption and risks in all water-related institutions at different levels, including for public procurement; and

e) Adopting multi-stakeholder approaches, dedicated tools and action plans to identify and address water integrity and transparency gaps (e.g. integrity scans/pacts, risk analysis, social witnesses)." (OECD 2018: 98)

For this study, sub-categories a) and c) have been regarded, as will be explained in section 2.1.3.

2.2 Logic of collective action

In order to further unravel the juxtaposition around the topic and to determine the motivations of these CBO's in the pursuit of water integrity, Olson's theory on "logic of collective action" has been applied as an additional theoretical lens. According to Olson (1971), individuals are primarily selfish and first and foremost take into consideration the cost and benefits associated with collective action for their personal lives before embarking on collective action. He further draws some assumptions that individual costs and benefits are affected by group size and their mutual interests that characterize the group. Keeping in view the Olson' theory on the logics underlying collective action, the composition, group size, and motivation of these CBO's particularly WO's in the organization and struggle towards the achievement of their common interests and objectives in the particular social and cultural context of Chitral District have been regarded in this study. A particular hypothesis has been formulated and tested in this study, namely that CBO's are successful in mobilizing for collective action due to their mutual interests, unique social and cultural cohesion, and smaller group size.

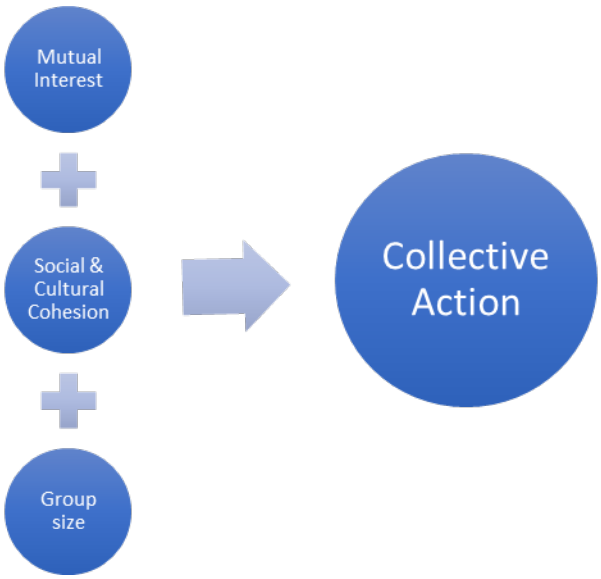


Figure 1: Olson' "Logic of Collective Action" (Olson 1971) that has been adopted and modified in this research to investigate the motivation of CBO's in their struggle towards water integrity.

Social and cultural cohesion refers to "shared values and communities of interpretation, reducing disparities in wealth and income, and generally enabling people to have a sense that they are engaged in a community enterprise, facing shared challenges, and that they are members of the same community" (Stanley 2003: 2). Olson explains the logic of collective

action in these words: "If members of some group have a common interest or objective, and if they would all be better off if that objective were achieved, it has been thought to follow logically that the individuals in that group would, if they were rational and self-interested, act to achieve that objective" (Olson 1971: 1) He further elaborates that it is not true that groups will act in their self-interest due to rational and self-interested behaviour, but there are other factors which play its role to make it happen. Those factors include smaller group size, coercion, or some other special device that regulates group behaviour in acting collectively towards their common goal or group interests (Olson 1971).

2.3 Theoretical framework:

The grassroot level activism and collective action of CBO's and particularly women organizations for water integrity and fighting corruption in the drinking water services in district Chitral made me wonder that what is the driving force behind this collective struggle and social change movement. It was in the field for data collection when I came to know that there are different factors which is guiding their behaviour in this regard including mutual interest, social and cultural cohesion and group size. Olson (1971) also called it logic of collective action which includes mutual interest, group size and external coercion or special device. Through this theoretical lens I had tried to explore the factors behind this collective action towards water integrity and fighting corruption. But at the same time, I have added the additional lens of water integrity to encompass the concept of water integrity in its limited definition to explain the phenomenon these CBO's wanted to achieve through their struggle. Due to the limited scope of my research I had to focus only on two pillars of water integrity i.e. accountability and anticorruption. Furthermore, in order to narrow down the concept of accountability and anti-corruption I have used the extended definition of Water Integrity by OECD and have again chosen two of its principles related to enabling environment through legal and institutional frameworks to hold decision-makers and stakeholders accountable and establishing accountability and control mechanisms. Through this theoretical model I have also looked at how WOs have established accountability and control mechanisms for water policy making, and how they have resorted to anti-corruption measures.

2.4 Key Concepts

In this research study I have used different concepts and terminologies relevant to the main theme of water integrity and which try to explain and make sense of the overall theoretical framework. Therefore, it is necessary to define it at the onset as understood by different researchers and institutions and what I meant by using it in the subject research and in the specific context of rural northwestern Pakistan.

2.4.1 Civil society

The origin of the term 'civil society' can be traced back to late eighteenth-century Europe, when it was used to illustrate "the realm of social life separate from the state" (Keane 2009, as cited in Rohinton et al. 2014: 788). According to the definition of the World Alliance for

Citizen Participation (CIVICUS), civil society is "the arena, outside of the family, the state and the market, which is created by individual and collective actions, organizations and institutions to advance shared interests" (CIVICUS 2012: 8). This definition encompasses the concept of 'shared interest' for the common good of all or for a particular minority group.

2.4.2 Community-based organizations

According to Bratton (1990), community-based organizations (CBOs) are local communal groups that draw motivation from the concept of volunteerism. Cary (2003) calls CBO's non-profit groups involved in humanitarian service at the grassroots level. In the context of northwest Pakistan, a very good network of grassroots level CBOs exists that are working towards community development and addressing basic needs of communities through resource mobilization and collective action. These organizations are often supported by different rural support networks (RSPN's), including Agha Khan Rural Support Program (AKRSP), National Rural Support Program (NRSP), Sarhad Rural Support Program (SRSP), and other similar local and international organizations. These grassroots community-based organizations are emerging as a new stakeholder in the governance and community development arena by representing local communities.

2.4.3 Corruption

I will start from the words of Kofi Annan taken from the foreword to the 2003 United Nations Convention Against Corruption, who said that "corruption is an insidious plague that has a wide range of corrosive effects on societies … This evil phenomenon is found in all countries—big and small, rich and poor—but it is in the developing world that its effects are most destructive" (United Nations Convention Against Corruption 2003, as cited in Rohinton et al. 2014: 239). The definition of 'corruption' is often narrowed down and commonly associated with the public sector and public servants, but it is not always the case; some authors and experts have hence duly included the private sector along with public sector in the scope of corruption. Authors like Joseph Nye (1967) and Samuel P. Huntington (1968) in their definition limit corruption to the public arena and public discourse. On the other hand, Susan Rose-Ackerman (1978) in her writings has focused on the connection between business and government as a 'corruption hotspot'. Professor Emeritus Dr Petrus van Duyne states:

> "[c]orruption is an improbity or decay in the decision-making process in which a decision-maker consents to deviate or demands deviation from the criterion which should rule his or her decision-making, in exchange for a reward or for the promise or expectation of a reward, while these motives influencing his or her decision-making cannot be part of the justification of the decision" (Duyne, 2019: 1).

2.4.4 Social Accountability:

Social accountability has been defined by Malena et al (2004: 2) as:

> "an approach towards building accountability that relies on civic engagement, i.e., in which it is ordinary citizens and/or civil society organizations who participate directly or indirectly in exacting accountability. Mechanisms of social accountability can be initiated and supported

by the state, citizens or both, but very often they are demand-driven and operate from the bottom-up".

According world bank (2019) Social accountability relates to citizens-led activities to make government officials, politicians, and service providers accountable for their actions and working related to social services delivery. World Bank (2019:1) has further identified four pillars of social accountability namely;

"(1) organized and capable citizens groups;

(2) an enabling environment, with government champions who are willing to engage;

(3) cultural appropriateness; and,

(4) access to information."

The concept of social accountability is related to and emerged from the idea of citizens involvement in governance. Citizens partake in this aspect of governance in the event of government institutions and market force's failure to regulate and protect public goods particularly corruption and mismanagement. (World Bank 2019). International donor agencies and institutions also promoted the concept of social accountability as part of their initiatives to ensure transparency and accountability in their loans and grants to governments and other entities in the developing countries.

2.5 Chapter Summary

In this chapter I have discussed the main concepts around which my research is organized, and the theoretical lenses used to explore the role of community-based organizations particularly women organizations in ensuring water integrity and fighting corruption. I have also explained my theoretical model of "water integrity" and "Logic of Collective" and how they have been operationalized. At the end of the chapter I have defined different concepts which are relevant to my research study and its different dimensions.

In the next chapter I will explain my research methodology with respect to my epistemological approach and the different data collection tools and techniques used. I have also explained my positionality and reflexivity and how I tried to mitigate my biasness during the research process. At the end of the chapter I have discussed the limitations of my research and the challenges I faced during the field work stage in relation to data collection and access.

Chapter 3 Methodology

3.1. Epistemological approach and methodological choices

> "The observation of which I shall speak is, for lack of a better term, interactive observation. It is not like looking through a one-way glass at someone on the other side. You watch, you accompany, and you talk with the people you are studying. Much of what you see, therefore, is dictated by what they do and say. If something is important to them, it becomes important to you. Their view of the world is-as important as your view of that world. You impose some research questions on them; they impose some research questions on you. That interaction has its costs—most notably in a considerable loss of control over the research process. It also has benefits. It brings you especially close to your data. You watch it being generated and you collect it at the source" Fenno (1986: 2).

In terms of epistemological approach, I have taken interpretivist stand throughout my research, which is clearly visible from my research methodology and choices. As my research and the research subject is very complex and cannot be answered through straightforward questions and analytical data and needed to be closely studied in their own environment in an interpretivist manner, within the context, artefactual meaning, and imposing certain questions to them but at the same time questions posed by them and thus finding answers to these complex questions through an interactive process. The different kinds of tools used, and data collected from many sources were meant not only triangulate the data and make it credible, but also for meaning making through the process as part of the interpretivist approach. As stated by Schwartz-Shea and Yanow (2012:47), the benefit of the interpretivist approach "is its focus on meaning-making: it seeks knowledge about how human beings, scholars included, make individual and collective sense of their particular worlds". Another aspect of my research is its non-generalizability without context, because in the words of Schwartz-Shea and Yanow (2012: 47) "it makes clear connections to specific (kind of) human beings in specific, historically and culturally understood settings".

Another feature of my research design and methodology was this aspect of the interpretive research that concept development takes place in the field, as opposed to during the research design process (Schwartz-Shea and Yanow 2012). Although I designed a draft theoretical model before going to the field for the observations and data collection, at the same time I had sufficient data and information about the research area and context due to my previous work related to and proximity to the research area. Additionally, I kept my research design flexible and methodology open to change based on the fieldwork process and new knowledge acquired during the process and made some significant changes to my conceptual model and design during this process.

Both primary and secondary data were used for the literature study and for developing the research design, while a mixed-methods approach was adopted for the collection of data. While both quantitative and qualitative research methods were used, qualitative methods took precedence. In order to ensure suitability to the research context, focus group discussions (FGDs) and key informant interviews (KIIs) were tested before formal application during the data collection period.

3.2 Data collection tools and techniques

As discussed in the previous section the nature of the research is complex and needed a mix method approach in terms of data collection and data sources. I also tried to make sure that every aspect of the topic is explored from community, CBO's and government perspective and to make sense of the whole context in the light of their responses. I also triangulated the claims made by different respondents by accessing records of PHED, LGERDD and consumer courts.

3.2.1 Focus Group Discussions

Ten community-based organizations (CBOs) in ten separate villages were selected on the basis of location, access and availability for focus group discussions (FGDs) in Booni Area of Tehsil Mastuj, Chitral District. Five of the CBOs were all male, while the remaining five CBOs were all-female CBOs; it was necessary to distinguish between all-male and all-female CBOs in order to draw a comparison between both types of organizations with respect to their individual success and failures. Each of the ten towns had an active community, with community centers hosting CBOs and all sorts of community meetings and events.

The terms 'village organization' (VO), 'women's organization' (WO), 'community-based organization' (CBO) and 'water user group' are used interchangeably in this study.

Carefully designed, semi-structured and pre-tested questionnaires guided the FGDs that lasted around 90 minutes each. Sensitive questions about corruption in the water sector were asked toward the end of each FGD so that rapport could first be built with FGD participants. Questions posed during the FGDs were also intended to be unbiased and clearly formulated to ensure that they could be answered to the best extent possible. The questions asked also reflected internal or emic interpretations of the language and culture of participants. New questions were added to existing semi-structured questionnaires following the testing of the FGDs and as new dimensions arose during the FGDs that took place during the fieldwork period; these questions could then be applied to future FGDs conducted for this study.

For the FGDs, semi-structured questionnaires were deliberately used to keep the conversation focused on the research topic and to ensure that the FGDs could be concluded timeously (within 90 minutes), while at the same time providing room for new insights and the raising of other concerns and topics. Local NGOs helped to identify FGD participants and arrange the meetings due to their familiarity with participants. The proximity of the Glacial Lake Outburst Flood (GLOF) event mentioned in Chapter 1 that took place at the time that some FGDs were held also impacted the data collection process – some of the FGDs therefore had to be hastened given the flood warnings.

3.2.2 Key Informant Interviews

Thirteen key informant interviews (KIIs) were conducted with government officials, in particular officials working for the Local Government Election and Rural Development Department (LGERDD) and Public Health Engineering Department (PHED) (ten interviews) and consumer court petitioners from the community (three interviews).

For the KIIs with LGERDD and PHED officials, a list of senior officials from the Chitral District Administration was used; 10 officials out of a population of 20 were randomly selected from this list through a stratified random sampling method. None of the officials

were female, which could have skewed the data by providing valuable insights about the role of women organizations and would have also encouraged these women organizations to approach them without any problem in the patriarchal context of district Chitral, where are not suppose to meet men outside their families and blood relation.

3.2.3 Non-Participant Observation

According to Angrosino, "[o]bservation is the act of perceiving the activities and interrelationships of people in the field setting through the five senses of the researcher" (2008: 38). Initially, doing ethnographic non-participant observation, which differs from participant observation and that was not part of my research design; during the fieldwork period I recognized, however, that non-participant observation could provide valuable additional information and could help to triangulate my data collected through KIIs and FGDs. As my findings will be used to formulate policy recommendations, I resorted to an applied ethnography approach. Angrosino (2008: 37) states:

"When a researcher wants to use the results of his or her fieldwork to make recommendations on public policy, or to contribute to the formation and maintenance of organizations or agencies that serve the community under study, then he or she is said to be conducting *applied ethnography".*

The sites for non-participant observation corresponded to the sites where the KIIs and FGDs were held, namely in the community centers of ten villages and at five government offices. One day was spent at each of the 15 sites, so that the main data collection period lasted 15 days. I tried to retain objectivity throughout the observation process through triangulating observations with other data, reflecting on my assumptions and ethnocentric views, and by recording and analyzing data objectively.

3.2.4 Primary data collection from consumer courts

During the FGDs and KIIs, research participants made me aware of the existence of a number of consumer court cases related to drinking water services provision. I decided to visit the District Consumer Court in Chitral Town, where I retrieved documentation related to 12 consumer court cases on drinking water services. In order to obtain the data from the consumer court, I had to follow a complex and lengthy process of application and approval by the competent authority which took a couple of weeks.

3.2.5 Primary data collection from government offices regarding complaints related to drinking water services

Additionally, I also made an effort to collect drinking water services-related complaints from different government offices that had been filed by water users using different complaints procedures and social accountability mechanisms, including digital complaints platforms. In the end, only Tehsil Municipal Administration (TMA) Chitral provided data; other government offices were unwilling to disclose such data.

3.2.6 Review of government policy documents and legislation related to drinking water services

In order to get an overview of existing policies, legislation, and institutional arrangements of the government related to drinking water services, different national and provincial policy documents, acts, and laws were reviewed (see Tables 1 and 2).

Table 1: Reviewed national-level policies, plans, and legislation related to drinking water services

Reviewed national-level legislation related to the water sector in Pakistan	
Policy/Document	**Year of Enactment**
Pakistan Penal Code (Act XLV of 1860)	1860
West Pakistan Water and Power Development Authority Act	1958
The Indus Water Treaty	1960
The Constitution of Islamic Republic of Pakistan	1973
On Farm Water Management Water Users Association Ordinance	1981
Water Apportionment Accord	1991
Indus River System Authority Act	1992
National Drinking Water Policy	2009
National Water Policy	2018

Table 2: Reviewed provincial-level policies, plans, and legislation related to drinking water services

Reviewed provincial-level legislation related to the water sector in Khyber Pakhtunkhwa, Pakistan	
Policy/Document	**Year of Enactment**
The Khyber Pakhtunkhwa Rural Area Drinking Water Supply Scheme Act	1985
Right to Information Act	2013
Community Driven Local Development Policy	2013
Right to Public Services Act	2014
Khyber Pakhtunkhwa Drinking Water Policy	2015

In addition, two sets of composite indicators, namely a 'user satisfaction index' and 'maturity index'[4] were used to assess the performance of studied CBOs. Five indicators have been used for calculating the maturity index score on a scale of 1-5, with 1 indicating the lowest score (worst performance) and 5 the maximum score (best performance), with each of the following indicators having similar score/weightage:

1. Community representation in executive body (composition)

[4] A composite indicator is formed "when individual indicators are compiled into a single index, on the basis of an underlying model of the multi-dimensional concept that is being measured (e.g. competitiveness, Performance, e-trade or environmental quality) which cannot be captured by a single indicator. Ideally, a composite indicator should be based on a theoretical framework / definition, which allows individual indicators / variables to be selected, combined and weighted in a manner which reflects the dimensions or structure of the phenomena being measured" (OECD n.d. https://stats.oecd.org/glossary/detail.asp?ID=6278).

2. Tenure of executive body members (number of years)
3. Process adopted for the selection/election/nomination of executive body members
4. Number of monthly meetings
5. Status of record keeping (meeting minutes/financial records/resolutions/etc.)

The FGD questionnaire shown in Appendix 5 contains a detailed description of the maturity index and user satisfaction rating for each CBO.

3.3 Data analysis

Owing to the need to analyze both qualitative and quantitative data, DEDOOSE, software for mixed-methods analysis, was used for the data analysis. The data analysis took place after the transcription of FGDs and KIIs. Complex quantitative and econometrics analyses of the data were intentionally avoided due to the fact that the data was mainly qualitative in nature.

3.4 Reflexivity and positionality

The nature of my research, including the research topic, the research area, the multiple gatekeepers involved, the research participants, and the public policy arena in which the research operates, necessitates an explanation of my reflexivity and positionality as a researcher. My involvement in public services governance as employee of and advisor to different international organizations, donor agencies, governmental departments and consulting firms, as well as my proximity to the research area, gives me multiple identities in different settings. In addition to concerns with possible bias, a number of ethnical and methodological issues have been flagged for this research.

Schwartz and Yanow (2012) when discussing researcher positionality say that for interpretive research, the effect of relationships and identities of the researcher will affect the data collection and analysis process and the way in which researchers convey findings. Challenges associated with 'participant observation', particularly difficulties related to balancing objectivity with being part of a community, influenced the decision to conduct 'non-participant observation'.

Another challenge for interpretive researchers is the issue of gaining access to the research area and participants and the role a researcher plays in this context – indeed a methodological issue (Schwartz and Yanow 2012). The authors further explain that a person's demographic characteristics and personal background might be crucial in accessing research settings and/or actors. In this context, hailing from northwestern Pakistan allowed me to access the remote fieldwork area on the Pakistan-Afghanistan border, which might not have been possible had I not been familiarized with the surroundings and the area's social and political dynamics. My personal and professional background furthermore gave me access to the multiple gatekeepers who granted me access to the research sites and allowed me to conduct the FGDs with the local CBOs which are also from the indigenous communities. Additionally, my personal and professional background allowed me to access

government officials and departments to conduct interviews, but also helped me in retrieving documents and data, which might have been difficult to access under different circumstances.

All these multiple identities ascribed to me therefore might have granted me access to the research setting and gatekeepers, but the risk of my intersectional identity on the generation and analysis of research remained. Several strategies were applied in an attempt to counter this, which included general reflexivity on my positionality and stressing my role as academic researcher during the FGDs, KIIs, and other formal and informal conversations.

3.5 Limitation and challenges

My knowledge of the research setting made me aware of possible limitations I might face during my fieldwork, and I tried to limit these through careful planning before embarking on fieldwork. I did this by contacting my network well in advance and preparing a detailed fieldwork strategy with backup plans in case things did not go as planned. In this section I have discussed some of the limitations and challenges faced and the mitigation strategies I adopted to prevent them.

First, my questionnaire used for the FGDs and KIIs contained questions of a very sensitive nature relating to corruption in the water sector in the context of a remote and underdeveloped area of Chitral. In order to overcome this challenge, I used carefully designed, semi-structured and pre-tested questionnaires in which sensitive questions were asked at the end of the discussions, when a level of trust had already been established between the researcher and the researched. I also knew that I had to formulate questions for the participants that would be easy to understand and had to ensure that I would not ask leading, judgemental, or double-barrelled questions. The questions asked also reflected internal or emic interpretations of the language and culture of the participants.

Due to Glacial Lake Outburst Flood (GLOF) event on 7 July 2019 – that occurred at the height of the fieldwork period – and subsequent flash floods in August 2019, my mobility was severely restricted as many bridges, roads, and telecommunications infrastructure were damaged. Many valleys remained cut off from the rest of the district, thus making it impossible to visit those valleys and villages. The Provincial Disaster Management Authority (PDMA), the National Disaster Authority (NDMA), and the provincial government had also issued many warnings related to travel and danger in the wake of possible GLOF and flash floods, which further restricted my mobility in the district. This greatly affected my sampling of FGDs, as I had to remove those valleys that were cut off and inaccessible from the sample population and include other accessible areas as an alternative arrangement. Additionally, as social and cultural norms, ethnicity, and religion differ from valley to valley in Chitral District, it was necessary to focus on one or several valleys with similar demographic populations and characteristics.

Regarding the KIIs with PHED and LGERDD officials, it was very challenging to successfully conduct the interviews in the context of the emergency declared in the district by the provincial government, but I managed to complete the interviews by taking extra time and effort, and by activating my network, who were helpful in arranging these interviews by contacting senior government officials.

I also anticipated that there might be some language barriers which could obstruct my ability to fully understand the context and answers while conducting FGDs with community-based organizations; I therefore asked a friend to act as a research assistant to help me in

translating local words to Urdu and to explain the context wherever needed. It should be noted that Urdu, Pakistan's official language in which the interviews and discussions were conducted, is commonly understood and spoken by the communities in Chitral but is not their native language.

I also faced many challenges and limitations in terms of doing research in northwestern Pakistan, which is difficult to access and where security concerns remain. The first challenge was getting an official 'No-Objection Certificate' from the authorities that was necessary to conduct research in the area. I approached different government officials considered to be the gatekeepers, produced my official letter from the university stating the nature and purpose of my research, and explained my position as a researcher and resident of neighboring district Dir. After the due process and different meetings, I was finally allowed to conduct my research in Upper and Lower Chitral District.

The second challenge was related to security. To ensure the safety of my research assistant, my driver, myself and research participants, I had to prepare a security plan for the entire duration of my research and had to follow standard security guidelines. The third challenge was related to the remoteness of the area. In order to navigate the mountainous area with its dirt roads, it was necessary to hire a four-wheel drive vehicle and an experienced driver to safely access the study area and visit different remote valleys and villages.

3.6 Background of the study area

Chitral District is located in northwestern Pakistan on the Afghanistan border, a formerly princely state[5] that formally became part of Pakistan in 1969. It is the largest district of Khyber Pakhtunkhwa Province with an area of 14,850 km² spread from Gilgit-Baltistan to Wakhan Belt and Dir Upper District (Chitral 1895). The district comprises rigid mountain slopes with small plains inhabited by the Khow and Kalash tribes (Development Profile of Chitral District 2015). Kalash is an ethnic and religious minority living deep in the three valleys of Bumboret, Rumbur, and Birir in Chitral District near the inaccessible mountain border of Taliban-controlled zones of Afghanistan (Stasinopoulou 2019).

Due to their isolation, the people of Chitral District living in the rugged mountainous valleys and lowlands, including the Kalash, are very active and organize themselves through village organizations, women's organizations, and local support organizations with the ongoing support of the Agha Khan Foundation (AKF) and the Sarhad Rural Support Programme (SRSP). The women are at par with their male counterparts in organizing themselves into women-only and mixed CBOs and are playing a very active role in improving social services delivery for their respective communities, with a focus on the provision of basic social services including drinking water in the water-scarce district (Dad 2016).

In this research I have tried to explore different dimensions of these organizations, particularly of women's organizations, including the role of ethnic and religious minority commu-

[5] "A princely state, also called native state (legally, under the British) or Indian state (for those states on the subcontinent), was a nominally sovereign monarchy under a local or regional ruler in a subsidiary alliance with a greater power. The British ruled India with two administrative systems: British Provinces and Indian "princely" states; about 60% of the territory of the Indian sub-continent were provinces and 40% were princely states". Source: https://www.globalsecurity.org/military/world/india/princely-states.htm

nities in the promotion of water integrity, water governance, collective action, and legal activism. There are many reasons for selecting Chitral District as a case for my research, including its exposure to frequent natural disasters, the large number of women-led civil society organizations, active involvement of women in community development, and its indigenous, ethnic, and religious minority population. The latter is surprising given that Chitral is located on the Pakistan-Afghanistan border area with a strong patriarchal society restricting women's participation in major walks of life, including politics, governance, and community development. So how can we explain the fact that the women are very much active, organized, and empowered when it comes to the water sector?

Maps 1 and 2 in Appendix 3 and 4 show Chitral District (Upper and Lower) and Buni Town, with markers indicating the data collection sites.

Chapter 4 The Success of women's organizations in water governance and accountability in north-western Pakistan.

4.1 Policy and legal institutional arrangements for drinking water governance in the context of northwestern Pakistan

In this section I will try to answer the first sub-question of my research related to policy and legal institutional arrangements in place in the north-western province of Khyber Pakhtunkhwa, Pakistan. Additionally, I will also present findings about the knowledge and understanding of government officials of PHED and LGERDD about the existing policies and acts promulgated for the regulation of drinking water services at the provincial level.

4.1.1 Laws and policies about drinking water

In Pakistan, the federal government is the main regulator of water resources. Water regulation is informed by legislation and managed by the Indus River System Authority. The Constitution of Pakistan (1973), refers to water and other public services in the section of 'Protection to property rights', stating that one of the Government of Pakistan's obligations is "providing housing and public facilities and services such as roads, water supply, sewerage, gas and electric power to all or any specified class of citizens" (Government of Pakistan 1973: 14). Provinces are the main administrators in charge of water services provision, and various laws and regulations have been enacted to provide provinces with the necessary authority and powers to manage the water sector. However, in the context of Khyber Pakhtunkhwa Province there are few legal statutes on the role of the provincial government to provide drinking water to its citizens. In addition, apart from the constitution, laws and general policies related to public sector services provision, no specific policy on the provision of drinking water existed until 2009, when the National Drinking Water Policy was approved; this was followed by the National Water Policy of 2018. Some of the federal and provincial level policies are discussed below to provide an overview of the existing laws, policies, and plans of the government related to drinking water services provision.

4.1.1.1 The Constitution of Pakistan (1973)

The Constitution of the Islamic Republic of Pakistan (1973) is the supreme law of Pakistan. It refers to water in various sections, but importantly provides protection from other laws and legislations that might interfere in the provision of basic services, including water supply (Constitution of Pakistan 1973). Apart from the condition found in Section 23 and 24 of the constitution mentioned in the introductory paragraph above, the constitution in Section 144 provides citizens and federal entities with the right to complaint if their interests related to water from any natural source (or reservoir) have been or are likely to be affected by any legislation or laws passed or proposed to be passed (Constitution of Pakistan 1973).

4.1.1.2 National Drinking Water Policy of 2009

The Pakistani government approved its first National Drinking Water Policy in 2009—a specific policy document that provided the much-needed framework to regulate and administer drinking water services. The objective of the policy is to provide an adequate quantity of safe drinking water to the entire population in an equitable, efficient, and sustainable manner. The policy considers access to safe drinking water as a basic human right to which every citizen is entitled (National drinking Water Policy 2009). The policy further affirms that it is the responsibility of the state to ensure the provision of safe drinking water to all its citizens. It also gives preference to drinking water over all other usages of water and states that the right of water for drinking takes precedence over rights for water for all other uses such as for the environment, agriculture, or industry. The policy also provides a supportive policy framework that allows and encourages the provision of water through the private sector, public-private partnerships, NGOs, and community organizations. It also highlights the role and function of state as both service provider and regulator.

It is very pertinent to mention that for the first time at such high level, the role of women in drinking water sector governance has been highlighted; the policy states that the participation of women in drinking water sector decision-making will be ensured:

> 5. Policy Principles […] (iv) Recognizing the fact that women are the main providers of domestic water supply and maintainers of hygienic home environment, their participation in planning, implementation, monitoring and operation and maintenance of water supply systems will be ensured; […] 6.5 Community Participation and Empowerment (i) Participation [of] communities, especially women and children, in planning, implementation, monitoring, and operations and maintenance of water supply systems will be encouraged, to promote community ownership and empowerment as well as sustainability; (iii) Community mobilization units will be established in water supply related institutions; (iv) Special focus will be placed on gender training programs for the staff of water supply related institutions at all levels so that they are able to respond in a sensitive manner to the gender differentiated needs in the drinking water sector" (National Drinking Water Policy 2009: 6, 9).

The policy further talks about the introduction of financial viability measures by levying appropriate water charges and cost recovery (National Drinking Water Policy 2009).

The federal laws, acts, and policies presented in Table 3 in chapter 3 together provide the required policy framework to the provinces and other regional authorities to align their existing drinking water-related laws and policies to the federal level policies or to draft new policies to ensure this. The federal level laws, acts and policies apply to the governance of water for the entire country, with broader policy guidelines; as such, the provinces and autonomous regions would need very specific policies aligned with the federal legislation and based on the local context. The KP rural area drinking water supply scheme act is one example of an act that is applied to the specific local context, as will be discussed below.

4.1.1.3 The Khyber Pakhtunkhwa Rural Area Drinking Water Supply Scheme Act of 1985

In 1985, the Khyber Pakhtunkhwa[6] government passed the Khyber Pakhtunkhwa Rural Area Drinking Water Supply Scheme Act, which laid out basic rules and regulations for the governance and regulation of drinking water supply services being provided through different government departments and authorities in the province. It was a short legal document with clear rules and procedures with respect to provisions for facilitating the execution of schemes for the supply of drinking water in rural areas of Khyber Pakhtunkhwa Province. It also included procedural information related to pipe water connections, tariffs, management through departments, water disconnections, the management of damage to water supply services, and other similar drinking water management regulations (Government of Pakistan 1985).

4.1.1.4 Right to Public Services Act of 2014

In 2014, the government of Khyber Pakhtunkhwa promulgated the Right to Public Services Act of 2014 with the objective to

provide for delivery of public services to the people of the Province of the Khyber Pakhtunkhwa within the stipulated time limit, including liabilities of Government servants in case of default, administrative efficiency and for the matters connected therewith and incidental thereto (Government of Khyber Pakhtunkhwa 2014).

Section 4 of the act lists 18 services defined as 'public services', which the government/departments are legally bound to provide within the stipulated time period. The list includes the public services, time limit, the designated officers responsible for providing the services, and the appellate authority. The notifications mentioned in this section state that any citizen who does not receive the notified service within the stipulated time frame can file an appeal against the designated officer before the concerned appellate authority in addition to filing a complaint directly to the RTS commission under Section 24 upon failure of the government to provide the services in the stipulated time frame. The two water-related public services listed in Section 4 of the act are shown in Table 4.

Table 3: Water-related public services under Right to Services (RTS) act 2014

S. No	NAME OF SERVICE	GIVEN TIME LIMIT	DESIGNATED OFFICER	APPELLATE AUTHORITY[7]
11	Granting of water connection	Two Weeks	(i) Zonal Manager WSSP for Peshawar (ii) Municipal officers in urban Areas of other districts (iii) SDO, PHED in rural areas of other districts	(i) General Operations Manager, WSSP Peshawar (ii) Chief Municipal Officer (iii) XEN, PHED

[6] The official name of the province at that time was North-West Frontier Province; it became 'Khyber Pakhtunkhwa' in 2011.

[7] Appellate Authority refers to the provincial and zonal level superior body (or bodies) possessing the legal authority to review appeals and make decisions on appeals against the decisions of district/divisional level authorities of different departments.

14	Supply of clean drinking water	As per government policy/priority (phase wise)	(i) Zonal Manager, WSSP for Peshawar (ii) SDO, PHED in other districts	(i) GM Operations WSSP for Peshawar (ii) Secretary, PHED

Source: Right to Services (RTS) Commission 2014, Government of Khyber Pakhtunkhwa.

During the research while reviewing different complaints registered with PHED, TMA, the Citizen Portal, the District Complaint Cell and applications filed by consumers in the Consumer Court, I found many documents where reference was made to the abovementioned act. Copy of one application is attached as appendix 7.

4.1.1.5 Khyber Pakhtunkhwa Drinking Water Policy of 2015

The Khyber Pakhtunkhwa Drinking Water Policy was approved by the provincial cabinet in October 2015 and serves as the first provincial policy on drinking water in KP. The policy envisages universal access to a sufficient amount of potable water to all residents for a better quality of life. The policy chalked out the roadmap to not only streamline water governance in the province, but also to ensure the provision of clean and sufficient drinking water to the entire population of the province by 2025. The policy has also adopted the key principles of the National Drinking Water Policy of 2009 related to the involvement of women in water-related decision-making processes, community participation, and empowerment and other related principles (Government of Khyber Pakhtunkhwa 2015). Furthermore, the provincial policy has also been aligned with the environmental standards and principles contained in the National Environment Policy of 2005.

4.1.2 Institutional arrangements

Although water is regulated at the federal level, provincial governments in Pakistan are responsible for the governance and management of water both in rural and urban settings. The reintroduction of local government systems in 2001 for decentralized governance and the passing of local government acts in 2013 further devolved the responsibility for social services delivery to the local government level. In Khyber Pakhtunkhwa, several institutional and legal arrangements are in place to this end, and many institutions and actors are involved in water sector governance and management (Government of Khyber Pakhtunkhwa 2013). Bellow I have explained some of the institutional arrangements and departments relevant to the research for reference and understanding.

4.1.2.1 Public Health Engineering Department (PHED):

The provincial Public Health Engineering Department (PHED) is the regulator and service provider for drinking water, with offices established at the district level. The PHED constructs drinking water supply schemes (DWSS) in both rural areas and urban areas, but mainly in rural areas. Unlike the province of Punjab where the control of rural water supply schemes is transferred to community-based organizations (CBOs) after construction for

operation and maintenance, in Khyber Pakhtunkhwa, the PHED retains ownership and responsibility for the operation and maintenance of water supply schemes after construction (KIIs 2019).

4.1.2.2 Tehsil Municipal Authorities (TMAs):

TMAs fall under the local government setup. Established in urban and semi-urban areas, they are also responsible for water and sanitation services provision in urban and semi-urban areas. In some cities, they have delegated this function to Water and Sanitation Agencies (WASAs), which are established by the provincial government in certain cities and semi-autonomous bodies (LGERDD 2019).

4.1.2.3 Water and Sanitation Unit TMA Chitral:

In 1989, with the financial support of German Development Bank *Kreditanstalt Fuer Wiederaufbau* (KFW), the PHED initiated the Angargoon Drinking Water Supply Scheme, which was completed in 1995 and handed over to Water and Sanitation Unit TMA Chitral (a newly established unit for managing this multi-million DWSS. It is responsible for providing drinking water to about 80,000 people living in Chitral City and nearby rural villages. This unit is still operational and is managing the same scheme under the administration of TMA Chitral. Initially, the operation and maintenance of Angargoon DWSS was the joint responsibility of the local community, local support organizations, and WSU Chitral, but the 2010 and 2015 floods badly damaged the scheme, and the local community then requested the provincial government to take over the scheme due to a lack of funds and technical expertise to repair, maintain and rehabilitate the scheme following frequent natural disasters. The provincial government accepted the request and the scheme is now under the direct administration of LGERDD and TMA (WSU). The scheme was rehabilitated in 2016 through the financial support of Department for International Development **(**DFID) and UNICEF under the DFID Multi-Year Humanitarian Program (amounting to PKR 23.57 Million). The scheme is currently operational, with a total number of 5,560 legal water connections including 4,500 household connections, 600 public connections, and 460 commercial water connections (TMA Office Chitral 2019).

4.1.2.4 Non-governmental organizations (NGOs) and local rural support organizations:

Apart from the government departments and units, a significant number of local NGOs and rural support organizations, including community-based organizations and local support organizations, are also providing drinking water to a significant portion of the population. The Water and Sanitation Extended Project (WASEP) is one of the leading rural support projects of the Agha Khan Development Network, providing water services to remote rural villages through local community-based organizations. WASEP is a long-term project which was launched in 1997 and is still providing financial and technical support to local communities in the rehabilitation and construction of DWSS in Chitral and Gilgit Baltistan. Participation and involvement of these NGOs and non-state local rural support organizations are creating localized water management institutions and governance systems (WASEP 2019).

4.1.2.5 Community-driven Local Development Policy:

The Community-driven Local Development (CDLD) Policy was developed with the financial and technical support of the European Union and approved by the provincial govern-

ment in 2013, showcasing a new model of community-driven local development where community-based organizations can access government funds for their own prioritized needs and will be able to implement these locally with the technical support of the government. The communities have ownership of the schemes and have also responsible for their operation and maintenance. In 2014, with joint funding by European Union and government of Khyber Pakhtunkhwa (64 Million Euro), the multi-sectoral District Governance and Community Development (DGCD) Program (2014-2018), also known as the Community Driven Local Development project, was launched. The project was initially launched in the six districts of Malakand Division, including Chitral District; after its successful first phase (2014-2018), the program was extended to June 2020 and its coverage expanded to 12 districts by adding six new districts. Currently, the government is institutionalizing the project, which may become a permanent community-driven program of the provincial government. In terms of gender equality and inclusion, the project has allocated 15% of its funds for women-specific projects (CDLD 2019). Under this project, to present about 60 DWSS schemes worth 57 Million PKR have been established by community-based organizations in Chitral Province (CDLD MIS 2019).

4.3 Knowledge and understanding of PHED and LGERDD officials of key policy documents

During the ten key informant interviews conducted with government officials of the PHED and LGERDD, one of the questions asked was related to the current policy and institutional arrangements in place regarding drinking water supply services provision in the context of rural and disaster-prone Chitral District (Sub-question 1). Although all the respondents were key officials of their respective departments, they were unable to provide any information on policy aspects. When asked about the National Drinking Water Policy of 2009, the Khyber Pakhtunkhwa Drinking Water Policy of 2015, and the Khyber Pakhtunkhwa Rural Drinking Water Supply Scheme Act of 1985, none of the respondents indicated having any knowledge of these policy documents and their practical implementation in the field, with reference to the rural and disaster-prone context of Chitral District. In KII06, the official from the LGERDD responded that:

> "I have no idea about these policies and have not heard about them before". He further stated that "in remote and mountainous areas like Chitral, we follow certain departmental 'standard operating procedures' and manuals about the selection and implementation of drinking water supply schemes, and the majority of the schemes are related to rehabilitation".

Another official in KII04 responded that 'he has no idea about these policies. When pressed on his knowledge of these policies, he claimed that:

> "there is no implementation or practicality of these policies at the ground level—they are just present on paper without local implementation".

Despite this, the interviews revealed that all of the respondents possessed sound technical knowledge of local practices and standards they followed in the context of Chitral with respect to the implementation and operation and maintenance of their drinking water supply schemes. In terms of the institutional arrangements in place in connection to drinking water supply schemes in the specific context of Chitral, informants were not only aware of these, but also had the complete knowledge and understanding of their functioning and their responsibilities.

4.4 Activism of community-based organizations for improving drinking water services delivery and fighting corruption

In this section I will answer the sub-question 2 regarding CBO's struggle to improve drinking water services and fighting corruption. As part of my research, I conducted ten focus group discussions (FGDs) in ten villages of Booni Tehsil, Chitral District (as per a recent government notification, Booni Tehsil has become the district capital of the newly created Upper Chitral District) with ten community-based organizations. A total of 102 participants were present—50 men and 52 women—with an average of 10 participants per FGD. Details of the FGDs are provided in Table 4 in Appendix 1.

Different variables were used to capture data on the different aspects of the provision of drinking water services by different actors, with particular reference to the performance of women-led community organizations. To measure and assess the performance of women-led community organizations in the provision of clean drinking water at the community level, I used user-satisfaction, functionality of the scheme, water availability, quality and quantity of water, and other similar indicators as benchmark indicators. Another aspect that came to my attention during the FGDs was that there are two types of water supply schemes in the community—those implemented and operated by the PHED, and the others by CBOs. It is imperative to understand how these CBOs are organized with their own governance structures, rules, and policy frameworks. All of the CBOs with whom FGDs were conducted were formed by Agha Khan Rural Support Program (AKRSP) and are members of the Local Support Organization; a higher-tier organization working at the Union Council level.

In response to the structure-related questions, the FGDs participants said that they have their own bylaws according to which they elect or nominate their office bearers for a specific tenure; the governing bodies comprise a president, manager, treasurer, and two committees on water and sanitation and health and hygiene, respectively.

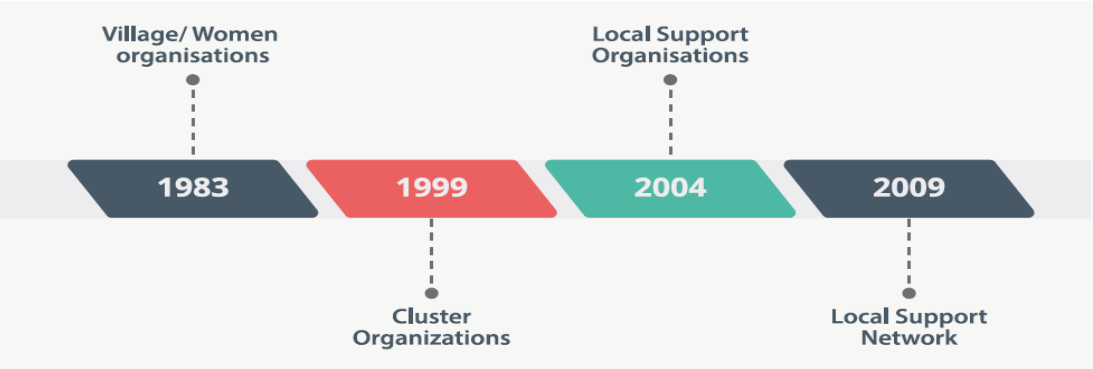


Figure 2: Evolution of the institutional continuum of people's own institutions in Chitral. Figure adopted from Dad and Mansoor (2016).

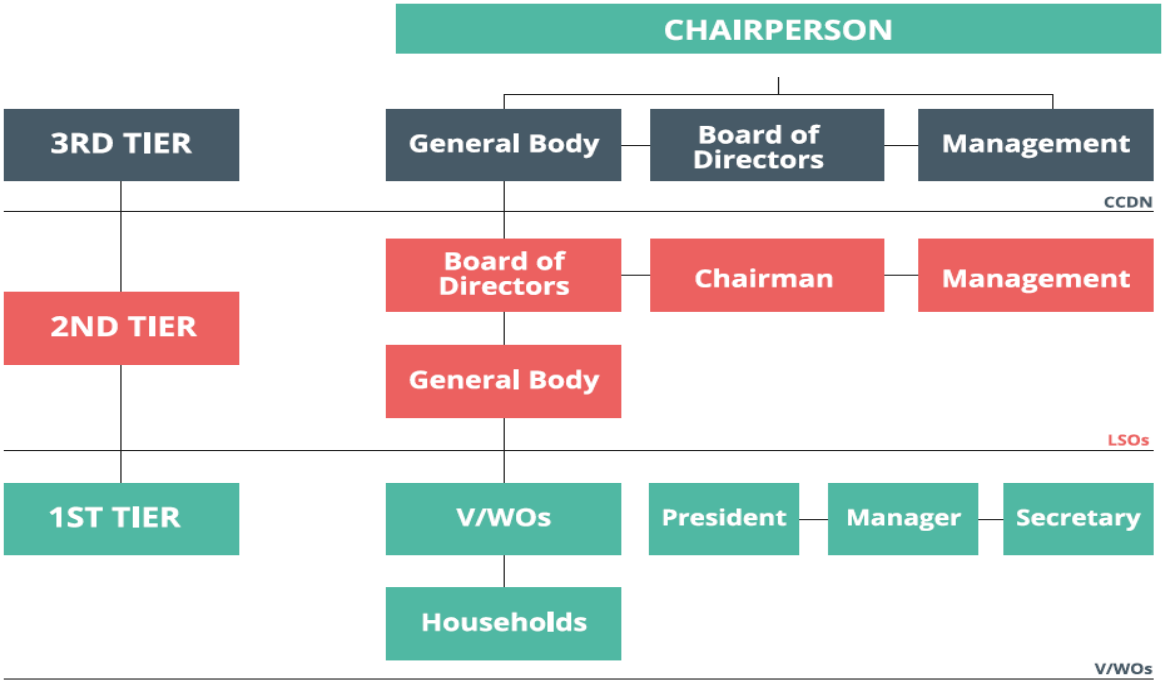


Figure 3: Governance structure and hierarchy of CCDN, LSO and VOs/WOs in Chitra. Figure adopted from Dad and Mansoor (2012).

These village organizations/women organizations are also provided with necessary training related to their work from time to time and have also been linked to other CSOs and LGERDD to access funds for their community-identified different needs.

4.4.1 Improving the provision of drinking water services at the community level

In this sub-section, I will try to answer sub-question 2, first component related to improving drinking water services at community level. The majority of community water supply schemes reviewed in this study have been constructed with the external support of different NGOs and donors' organizations. The PHED's own drinking water supply schemes are operating at all of the ten research sites, while communal schemes were also present at all of the sites, operated by either the VOs/WOs or their committees with the external support of NGOs. Out of the ten community-based water supply schemes, nine were constructed with the technical and financial support of the Water and Sanitation Extension Programme (WASEP), while one was supported by the Sarhad Rural Support Programme (SRSP). WASEP, established in 1997, is the flagship project of the Aga Khan Agency for Habitat (AKAH), a subsidiary of the Agha Khan Foundation (AKF). The presence of the PHED and community-based water supply schemes in the research area became an additional indicator used to assess both types of schemes comparatively in terms of performance and services. When asked about the functionality of the PHED and community-based schemes, FGD participants responded that out of the total of 17 schemes, all of the seven PHED schemes are only partly functional, while all of the 10 WUC schemes are fully functional and providing water to the community. When asked as a follow-up question as to why the PHED scheme(s) are not fully functional, the participants responded that the PHED scheme is facing many problems, including water availability issues on a daily basis and the leakage of pipes due to poorly maintained main and distribution lines. In FGD05, the president of the WO with which the FGD was conducted stated that "our PHED

scheme was not constructed as per the design and specification, and substandard material and pipes were used, which often results in the scheme's partial or complete non-functionality for weeks until it is repaired".

When asked about the level of satisfaction regarding the construction and implementation and availability of water in the PHED and WUC schemes, FGD participants identified a clear difference between the two types of schemes, with 100% of participants indicating being dissatisfied with the implementation of the PHED schemes versus 100% of participants indicating being satisfied with the WUC schemes. The assessment was done by rating satisfaction levels according to a scale of 1-5 (0-100% in increments of 20%). When further asked about the reason of 100% dissatisfaction with the PHED schemes, participants responded that the community had no role at all in the construction of these schemes and that the contractor hired by the PHED was not using quality material and pipes in the construction and also deviated from the design. A participant of FGD02 said that "the source of water of the PHED scheme is an open stream and above that the storage tanks are not protected or covered, with the additional problem of pipe leakages in many places". In terms of water availability, 100% of respondents were happy with the CBOs schemes (in comparison to 43% being dissatisfied, 43% partly satisfied and 14% satisfied with the PHED schemes).

Regarding the ability of the two schemes to provide access to sufficient water for daily use, the response was also considerably one sided, with 90% of FGD respondents able to access sufficient water through the CBOs schemes and only 29% through the PHED schemes. With respect to the quality of water, 100% of the respondents stated that the water provided by the PHED schemes is not fit for drinking, while 100% of the respondents declared that water supplied by the WUC schemes are fit for drinking. When asked why they did not consider water provided by the PHED schemes as fit for drinking, the FGD respondents unanimously said that water source of the PHED scheme is an open stream. Additional reasons cited were the failure to cover water storage tanks and water leakages at multiple locations. During FGD07, participants asked me to join them in collecting water from both PHED and WUC schemes in their village in two different glasses. The water from the PHED scheme to my surprise was muddy and even not fit for other household use, while the water of CBO scheme was clear and free from any macroscopic visible contaminants. In the FGDs, respondents were asked to answer whether they were satisfied or not with WUCs' role in the provision of clean drinking water; 100% of the respondents were satisfied with the services provided by the CBOs for the WUC schemes.

In order to get an overall picture of how successful CBOs are in improving water provision to the community, participants were asked to rate water services provision by CBOs on a scale of 1-5 (0-100% in increments of 20%). In nine out of 10 FGDs, participants were 100% satisfied, while 10% stated that the WUC is 75% successful in improving the provision of water to the community. A participant from FGD08 said that "they have done water quality tests and the water of CBP's schemes are free from any physical or biological contamination and has been declared fit for drinking by different laboratories". Another participant from FGD06 shared that "we conduct annual water quality tests and also clean the reservoir and storage tanks on quarterly basis".

Because all the CBOs performed equally well in terms of improving clean drinking water services provision to their respective communities, it is not possible to conclude with certainty that women-led CBOs performed better than male CBOs in this regard. On the other hand, a comparison of the quality of services provision of CBOs to that of the PHED reveals that CBOs are far more successful than the PHED in improving the provision of clean drinking water to the communities. When rated according to the maturity index,

however, women-only CBOs fared much better than men-only CBOs. The following indicators were used to rate both types of CBOs on the maturity index:

1. Community representation in executive body (composition)
2. Tenure of executive body members (number of years)
3. Process adopted for the selection/election/nomination of executive body members
4. Number of monthly meetings
5. Status of record keeping (meeting minutes/financial records/resolutions/etc.)

I also verified certain scores obtained by different organizations on the maturity index in addition to the responses of FGD participants by checking their records, including meeting minutes, resolutions, and financial management documents. Each WUC was rated on a scale of 0-5 (0,1,2,3,4,5) against these indicators, after which their maturity index score could be calculated. According to a descriptive statistical analysis, the mean score for men-only CBOs was 34.6 and the median 34, while for women-only CBOs the mean score was 36.6 and the median 37.The t-value was -2.97, with df 8 showing that the scores were somehow statistically significant and not equal to null or zero. This implies that women-only CBOs scored high on the maturity index despite many governance-related and socio-cultural barriers.

Due to the small number of observation instances, it is not possible to conclude that the result is highly significant, but at the same time the maturity index scores show that women's organizations are more active at the community level in terms of their internal organization than men's organizations.

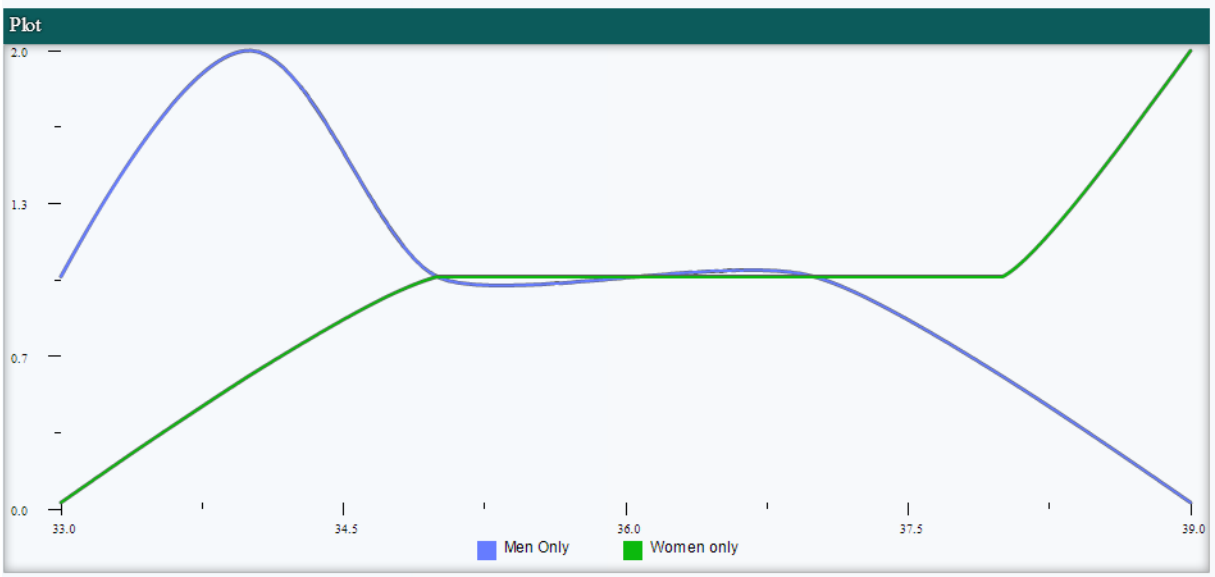


Table Values

Group	n	Mean	Median	Std. Dev.
Group A(Men Only)	5	34.6	34	1.517
Group B(Women only)	5	37.6	38	1.673

Plot 1: t-Test of women-only and men-only CBOs' maturity index scores showing the comparison of men and women only CBO's I terms of their performance on internal governance indicators.

4.4.2 Fighting corruption in drinking water services

In order to answer the second component of sub-question 2, how and to what extent women-only CBOs are successful in fighting corruption in government-run water supply schemes, a number of questions and follow-up questions were asked in the FGD's and KII's apart from triangulating the responses from other sources, including the official records maintained by different departments. The first question in this regard was about whether the FGD participants had witnessed corruption in the water supply schemes, including the payment of small bribes. In response, only 1 of 10 participants in FGD03 (with a men-only CBO) confirmed that he had witnessed corruption in the governing of water supply schemes, while none of the female participants (in FGDs conducted with women-only CBOs) claimed to have witnessed corruption. One of the FGD participants from FGD04 shared that "there is no-one here to pay any bribes to anyone; no-one can dare to ask us to pay bribes". The low occurrence of corruption in the form of bribes and community awareness about it shows that the community is highly active in this regard.

As a follow-up question, and in an attempt to make connection between the previous question and the responses to the question, I then asked a probing question about the construction and implementation of the PHED schemes in their respective villages, where the contractor failed to complete construction of the schemes, leading to their partial functionality. All of the ten WUCs with whom FGDs (FGD01-FGD10) were conducted caught on to my line of inquiry and responded that they had witnessed corruption and mismanagement of funds on two occasions. The first occasion was when the contractors of a PHED scheme left the schemes incomplete and used substandard material and pipes in the construction of the DWSS. On the second occasion, some officials of the government department colluded with the contractor when community went to the consumer court to file a complaint against the PHED and the contractor. One FGD participant from FGD05 shared that:

> "the contractor did not follow the design and specifications of the Project Cycle Form 1 (PC-1)[8] by using low quality Galvanised Iron (GI) pipes and not burying/covering the pipes up to a depth of four feet—standard for the snowbound areas. As a result, in winter the pipes burst due to the freezing of water and resulted in the non-functionality of the scheme".

During the discussion with FGDs, it also came to light that the community had no role at all in the contractor-implemented scheme and that the monitoring and supervision of the scheme were done by PHED officials. Still the community, was proactive and raised the issue of substandard material use and failure to follow the design and specifications at the consumer court, but to no avail.

There are few other indicators that show the role of WUCs in fighting corruption in the PHED water supply schemes. The level of awareness among both male and female CBO members who have knowledge about the existing complaints mechanism can be attributed

[8] Project Cycle 1, commonly known as PC-1, is the first step in designing or proposing a government project or infrastructure scheme under the guidelines of the Planning Commission of Pakistan. It has a form which needs to be filled in and approved to initiate the process. A sample PC-1 form can be accessed through this link: https://www.pc.gov.pk/uploads/downloads/PC-Forms/PC-I-Infrastructure.pdf

to the WUC. Seven CBOs are aware of the existing complaints mechanism, while three WUCs did not.

When asked about the number of complaints registered by the WUCs in the past year (July 2018 to June 2019[9]), 100% of FGD participants acknowledged that they had registered at least one complaint in the past year regarding PHED scheme-related issues of diverging natures. Furthermore, in the KIIs, I asked questions to the PHED and LGERDD officials about the average number of complaints registered at their respective offices through different mediums; the response was that about 109 complaints are being registered on average in a month at different offices and through different mediums. In KII01, the interviewed official shared that "in Tehsil Mastuj, we alone receive complaints in the range of 300-400 per month". He further stated that he received '100' telephone calls the previous Monday (15 July 2019) from community members related to issues and complaints pertaining to drinking water services being provided by PHED.

Moreover, during the key informant interviews with PHED and LGERDD officials, I explicitly asked whether they or their respective offices had been approached by WUCs regarding complaints of corruption or the mismanagement of funds. Out of the ten officials interviewed, eight responded that this was indeed the case. When asked about the nature and type of the corruption complaints, they responded that the majority of complaints were related to the mismanagement of funds allocated to the construction of the PHED WSSs by the contractors and engineering staff of the department. In KII05, the official shared that:

"a complaint of corruption allegations was also lodged against me and I was accused of embezzling one million PKR in collusion with a PHED contractor in a particular water supply scheme". He further added that "an official enquiry to probe the matter was carried out and I was cleared of the charges".

During KII01, the official shared that "the active role of these WUCs and the awareness created by them among the local communities resulted in complaints even to the National Accountability Bureau[10] (NAB), which then conducted detailed enquiries into the complaints". Again, here, like the previous question, there was sufficient evidence that both men's and women's organizations are equally successful in fighting corruption in the drinking water supply schemes run and maintained by the PHED and LGERDD.

4.5 Water users' litigation for drinking water services delivery

In this section I will try to explore the legal aspect of CBO's struggle partially covering sub-question 1, 2 and 3 and the key focus of my research. During the FGDs and KIIs, an interesting aspect of community activism in the form of litigation regarding drinking water services became apparent. This legal aspect of community-led collective action to hold the drinking water services departments serving communities accountable, improve drinking water services, and minimize the risk of corruption is another good lens from which water governance can be assessed. Some community organization members were engaged in legal

[9] The financial year of the Government of Pakistan starts in July and ends in June.

[10] The National Accountability Bureau is Pakistan's apex anti-corruption organization. It is charged with the responsibility of the elimination of corruption through a holistic approach of awareness, prevention, and enforcement. It operates under the National Accountability Ordinance of 1999.

battles with the PHED and LGERDD by filing petitions in the district consumer courts established by the Khyber Pakhtunkhwa government under the Khyber Pakhtunkhwa Consumers Protection Act of 1997 and Khyber Pakhtunkhwa Consumers Protection Amendment Act of 2015 and 2017. During the FGDs, all seven CBOs who had PHED water supply schemes confirmed that they had filed a petition/application against the relevant government department and/or contractor in the consumer court related to drinking water services. In order to triangulate the data and confirm these claims regarding consumer court cases, I approached the Chitral District Consumer Court. After an initial struggle to gain access to official documentation, I was able to obtain copies of 12 applications related to drinking water issues filed at this consumer court. The copies of applications and petitions confirmed the claims of WUCs, although the applications were not directly filed by the participant CBOs, but rather by individuals or groups of individual consumers served by the PHED and LGERDD schemes. The reason for this is that these WUCs do not have any legal status, as they are registered as rural support networks and organizations. Table 5 attached in Appendix 3 presents a brief analysis of the 12 consumer court applications. While it was not possible to retrieve final judgments or results of the majority of the consumer court cases, the process, barriers, and policy implications of this form of legal activism by consumers in the remote district of Chitral could be assessed.

Despite challenges communities in Chitral face due to the remoteness of the area, communities are active in embarking on legal processes in an attempt to hold relevant state departments accountable for the provision of clean drinking water. It is also worth mentioning that consumer courts in former provincially administered tribal areas (PATA) districts, including Chitral, only started functioning in 2016, when the status of PATA was abolished through constitutional amendment.

I decided to visit the petitioners of CC12 from the Buni area of Upper Chitral to learn more about the case. Buni is a small town located at a distance of about 72 kilometers from Chitral Town on the Chitral-Mastuj road in Upper Chitral. The road is in a poor condition and it took me more than two hours in a local four-wheel drive vehicle to reach Buni from Chitral Town. Two of the CC12 petitioners were interviewed, along with one other person who was interviewed by the commission formed by the consumer court that visited the village. During the interview, I asked questions to petitioners 1 and 2[11] about the consumer court case, including the reason for going to the consumer court, the background of the water supply scheme(s) under discussion, their affiliation with any CBO, and other related questions. Petitioner 1 told me that different social activists, elected local body representatives, CBOs and community elders had formed a movement called 'Movement for the Rights of the People' in Buni[12], which went on to file a case at the consumer court on behalf of about 4,000 households and PHED consumers of three different PHED schemes (Phase 1, 2, 3) because they were not getting water from the PHED schemes due to scheme non-functionality. He further shared that the reason for non-functionality was that the contractor of the PHED had failed to complete the construction of the schemes, in addition to the use of substandard material and low-quality pipes. The third person I interviewed regarding the consumer court case was one of the community members who was interviewed by the commission formed by the court and was asked questions about the different aspects of the scheme under enquiry. The community member shared that:

> "the commission asked me questions about water availability, main line construction, distribution line, depth of the pipe in the ground, etcetera. I responded to them that the

[11] For the sake of protecting the identity of the petitioners, I am using alias/pseudonyms.

scheme, as you can see, is not functional, and although the contractor constructed the main line, we had to purchase our own pipes for water distribution and connection but were still not getting water. Additionally, the depth of pipe in the ground is less than two feet, which as per standard for snowbound areas should be at least four feet."

Petitioner 1, narrating their struggle, said that

> "at first, we approached PHED officials and the district administration on multiple occasions to rectify the fault and complete the scheme(s), but in vain. Later, the community purchased pipes on a self-help basis and got connections from the scheme, but still the scheme was partially functional and not providing water on regular basis. It was after great deliberation at community level that we decided to file a petition in the consumer court and asked the honorable court to conduct an enquiry into the matter and complete the scheme. The court formed a commission and the commission visited our village(s) to inspect the schemes and to ask questions to the community/consumers. The commission completed its work and submitted its report, which due to unknown reasons was not made public."

Similarly, Petitioner 1 further shared that:

> "PHED officials along with contractor conspired and tried to disinform the court to influence the case. The court rejected their application on the grounds that we are not legal consumers under the PHED scheme, as they receive no revenue from these schemes, despite the fact that we have deposited PKR 3000 for getting connections".

Petitioners 1 and 2 also shared that:

> "the problem lies in the bidding and contract system of the PHED, where a contractor wins the bid for a government tender by quoting below the actual cost and later struggles to do the required and agreed-on work due to financial constraints. Therefore, in order to profit from the scheme, the contractor with the support of officials deviates from the design, using substandard material and pipes, in some cases leaving the scheme(s) incomplete".

When asked about whether any changes occurred as a result of the court case, petitioner 2 shared that:

> "because our case got much attention, the locally elected member assembly approved an additional PKR 6.8 million for the scheme's completion, which somehow addressed a number of faults in the scheme through new pipe networks and thereby provided some relief to the community".

Both petitioners 1 and 2 suggested that the government should involve the community in the monitoring and supervision of government projects, including DWSS. Apart from the consumer court petitions, a significant number of complaints were also registered through different means available, including through digital means, by telephone, and in person. Although I was unable to get data from the digital sources of the citizens' portal, I was able to collect data from TMA Chitral Town, which is presented in Table 7.

Table 7: Details of drinking water related Complaints registered in the Year 2018 in TMA office Chitral

S. No	Month	Number of registered complaints
1	January	14
2	February	13
3	March	36

4	April	26
5	May	35
6	June	30
7	July	92
8	August	28
9	September	29
10	October	23
11	November	20
12	December	08
Grand Total		354

Source: TMA Chitral Administration Office, Government of Khyber Pakhtunkhwa (2018)

4.6 Social and cultural norms and the role of women in drinking water provision

This section completes my theoretical model component three about the motivation of CBO's in engaging successful Collective action explained through Olson's (1971) logic of collective action. In order to explore the role of women in water sector governance and its relationship with social and cultural norms, specific questions were asked to FGD participants of WUCs and government officials in the KIIs, respectively. The first question asked to FGD participants was: *how do social and cultural norms facilitate or hinder the role of women in water sector governance*? All ten FGD participants stated that social and cultural norms facilitate the role of women in water sector governance. FGD participants explained that the majority of them hail from the Ismaili[13] indigenous group, whose social and cultural norms promote and encourage women's participation in all walks of life—in strong contrast to the patriarchal norms in surrounding communities. Unlike other Sunni Muslims in the area and adjacent districts, Ismaili women are comparatively educated, with a higher literacy rate in these communities. A male participant in FGD03 shared that:

> "as women are predominantly responsible for fetching water and taking care of water-related things at household level, thus in this regard their role in water sector governance becomes important".

One female participant from FGD07 (president of the WO) shared that:

> "our social and cultural norms are facilitating our participation in CBO activities and has never hindered us from involvement in the CBO activities".

She further stated that "male members of our families never stopped us from participating in CBO meetings and other activities related to water supply schemes".

[13] The Shia Imami Ismaili Muslims, generally known as the Ismailis, belong to the Shia branch of Islam. The Shia forms one of the two major branches of Islam, the Sunni being the other. The Ismailis live in over 25 different countries, mainly in Central and South Asia, Africa, the Middle East, Europe, North America, and Australia, and number approximately 20 million.

One manager of a men-only CBO with whom we conducted FGD06 commented that:

> "the social norms and the culture of the people of Upper Chitral, particularly the Ismaili community, fully support and facilitate women's participation in local rural support organizations".

During the discussion with all CBOs, I noted that the participants not only used the word 'facilitate', but also 'promote' and 'encourage', thereby leading to the conclusion that social and cultural norms facilitate and promote the participation of women in water sector governance.

The response of government officials to the first question was almost the same: all ten interviewed officials agreed that social and cultural norms facilitate and promote the participation of women in water sector governance, but at the same time they made a distinction between Upper Chitral and Lower Chitral and the Ismaili community and non-Ismaili community. In KII05, the government official stated:

> "It depends on the area and composition of community. In Upper Chitral and some valleys in Lower Chitral, social norms and culture promote and facilitate the engagement of women in water sector governance and play an important role, while in urban settings like Chitral Town, women are not allowed to participate in any kinds of social activities, including participation in water sector governance."

The second question I asked to the FGD participants of CBOs was about the perception of the general community of the involvement of women in water governance. All ten FGD participants agreed that the involvement and participation of women in water governance is positively received and appreciated. One of the male participants of FGD03 stated that "the local population and its social cohesion is one of the major reasons for this positive perception and encouragement". A female participant in FGD05 shared that:

> "the perception of approximately 80% of the community of women's involvement in water governance and management is positive, with the exception of few individuals who think that women are not supposed to go outside their houses".

As a probing question, I asked who these 20% are who are not in favor of the participation of women in water governance; FGD participants responded that they were members of the non-Ismaili community living in the villages. It thus becomes clear that the Ismaili community supports and encourages the participation of women in water governance. A female participant in FGD02 explained that:

> "the Ismaili community is very open about the participation of women in this regard and always supports women's participation in the daily affairs of life, including organizing and mobilizing the community for social welfare and communal work".

During my ethnographic non-participant observation in all the ten villages where I conducted the FGDs with the CBOs, I noticed that women were freely commuting in the village without any problem, just like their men counterparts. I also observed that women were more active than men in the social life of these remote villages. While travelling to the location where FGD04 was to be held, I lost my way in the village and needed guidance towards the community center. At this time, I noticed that there were more women on the streets of the village than men. Initially I was reluctant to ask women to guide me towards the village community center and waited for some time but was unable to find a man. I

then realized that I could ask women, and when asked they accompanied me to the community center without any problem.

Chapter 5 Conclusions

As discussed in Chapter 1 section 1.2 through my research I wanted to highlight the struggles of community-based organizations in seeking to ensure accountability for improved drinking water services and bring wider social change related to community empowerment in the context of northwestern Pakistan. Furthermore, I also wanted to assess and review the different social accountability mechanisms put in place by the government, particularly in Khyber Pakhtunkhwa Province, and the enabling environment provided to communities for participatory governance and mobilization for improved accountability. Apart from the abovementioned aspects, I also intended to look into all these perspectives from a gender lens to situate and highlight the role of women in the context of a rural and patriarchal society in northwestern Pakistan, where women are expected to perform the so-called duties of child rearing and household chores.

In the context of a rural climate-affected and disaster-prone district like Chitral where community-based rural organizations are very active and have a potential role to play in community development and social services delivery, it is essential for the government to take cognizance of this role and devise a governance structure and arrangements where these organizations could be taken onboard for collaborative governance. In light of the organizational strengths and governance-related successes of community-based organizations, and in light of the failure of frontline social services delivery departments to provide the basic necessity of clean drinking water to communities, it becomes imperative to develop a governance structure where these community organizations are given equal say in their own affairs and can plan for their own development by means of a bottom-to-top approach. These community-based organizations have a high level of acceptance and legitimacy in their communities and are successfully running different services ranging from drinking water to education, health, and micro-enterprises. They should therefore be engaged by means of a participatory planning and decision-making system, such that they may become active catalysts in the development of their own communities.

This does not mean that government has completely failed in providing basic social services and is doing nothing to ensure the wellbeing of these rural and remote communities; in fact, the activities of community-based organizations and the general public is made possible through the enabling environment the government has so far provided and is trying to further enhance. In the last few years, the government has introduced many social accountability mechanisms and has put in place many institutional arrangements to facilitate the community to not only assert their rights, but also to perform the role of whistleblower in the wake of corruption or mismanagement of public funds.

The introduction of the Rights to Public Services Act of 2014, the Right to Information Act of 2013, and the establishment of consumer protection courts are among many other such steps which has enabled general public and communities to make their government accountable and transparent. The different methods and mediums of complaints registration has also enabled them to not only raise different issues pertaining to their basic needs, but has also given them the platform to interact with officials of different government departments. The high number of complaints registered on a monthly basis with different departments through different mediums and the legal mobilization of communities by filing legal petitions in the consumer courts are healthy signs that the general public still trust the government despite all its failures in providing basic social services, including clean drinking water.

5.1 Implications for theory

The theoretical model inspired from Olson (1969) 'Collective Action Logic' put to test here revealed some interesting results and was successfully verified. My hypothesis was that these community-based organizations are successful in their collective action because they have shared interests, are smaller in size, and are socially and culturally cohesive. The words used by Olson instead of 'social and cultural cohesion' were 'coercion' or 'special device'. I tested the model by replacing 'coercion' or 'special device' by 'social and cultural cohesion' and was able to verify that indeed small groups which have similar social and cultural traits are bound to be successful in their collective struggles. In terms of theoretical implications of the research, the successful application of this model would be useful in future studies on organizational behaviour, group dynamics, and indigenous movements, in addition to studies of community-based grassroot organizations working towards community development.

5.2 Policy implications

As my research is focused on the public policy arena in general and particularly on the interaction between public services delivery departments and community-based organizations, it has direct policy implications in the given context. Additionally, the receptive nature of current government in terms of governance reforms evident from the introduction of different policies and acts to improve social services delivery further increases the possible connotation and consequences of this research at the policy level. This research not only identified the failure of government departments to provide safe drinking water to the rural communities of Chitral, but also highlighted the successful model of community-based organizations in providing drinking water services in low-resource settings. Although the different policy and institutional arrangements have enabled the general population and community organizations to hold government departments accountable and transparent in the provision of basic social services, but these policies still lack implementation in its true spirit. The non-responsiveness of government departments to citizens' complaints and the inconclusive nature of consumer courts applications may have negative effects on the level of trust citizens have of these institutions that can ultimately result in a trust deficit. Moreover, if the Right to Public Services Act of 2014 and Right to Information Act of 2013 are implemented across all government departments without any reluctance, and if awareness is raised among citizens to encourage them to refer to these acts in their attempts to hold the government accountable, the governance system and quality of services delivery may benefit.

Another policy implication of this research is related to role of women in drinking water-related decision-making, as they are the main stakeholders in terms of their responsibilities related to drinking water provision and use in the context of northwestern Pakistan. Despite this, a notable finding was that no women were employed in the PHED and LGERDD in the entire district of Chitral. Furthermore, the patriarchal and insecure environment at government offices have had a negative influence on women's activity in water governance. Nevertheless, through their consistent and successful struggle in the water sector, these women's organizations have made a bold statement that they also have the skills and potential to keep up the pace with their male counterparts in the public policy arena.

5.3 Recommendations

While the situation regarding drinking water services provision in northwestern Pakistan is not likely to change completely overnight, this research suggests some clear policy avenues that might prove to be successful in the given context. The findings of the research point towards the potential of a collaborative governance structure for drinking water services provision that could include CBOs, elected representatives, and relevant government officials from the PHED and LGERDD. Based on the individual expertise and participatory decision-making mechanisms, a jointly managed drinking water system could be formed by delegating community-based organizations the role of monitoring and supervising the construction and rehabilitation of water-related infrastructure as well as the operation and maintenance of water supply schemes. This will not only increase the ownership of the local community but will also help to make the construction and rehabilitation of water-related infrastructure transparent and corruption-free.

Another benefit of this arrangement apart from improving the provision of clean drinking water services at the consumer end will be reducing the financial burden of government in the operation and maintenance of the water supply schemes, which will be transferred to the community. The DGCD/CDLD Program is a good example of a successful collaborative arrangement between government and community. This program has so far shown promising results, and after its successful pilot in six districts, the government of Khyber Pakhtunkhwa in 2018 expanded its coverage to 12 districts. Under the CDLD Program, local communities can identify and address their own community needs through the financial and technical support of the government. As part of the agreement between government and community, the responsibility for the operation and maintenance of the community project or scheme rests on the shoulder of the community. Therefore, similar arrangements could also be successful in drinking water services provision.

Given the absence of women in the government departments responsible for the provision of drinking water services, and given the key role that women are seen to play in their communities related to water collection and management at the household level, appointing female officials in the PHED and LGERDD will be very helpful both for facilitating the involvement of female citizens in public services provision and for resolving issues related to drinking water services.

5.4 Scope for further research

The role of women's organizations in drinking water services provision is under-researched globally, and not researched at all in the context of the rural northwestern Pakistan. Despite efforts made in this study to better understand this research topic, ample space remains for further research on the topic, as well as on related topics such as the governance of climate change adaptation in the context of northwestern Pakistan and legal mobilization by citizens in courts and its policy implications. Conducting a quantitative research study on the cost-benefit analysis of government- and community-owned drinking water supply schemes would also be required in terms of a comparison of the costs and benefits of these modalities. Moreover, a quantitative study could be carried out to measure the economic cost of contaminated and polluted water with a focus on northwestern Pakistan, taking into consideration the health hazards related to polluted drinking water. Finally, the two pillars of the Water Integrity framework not applied in this study, namely 'transparency' and 'Participation', could also be explored.

Appendices:

Table 5 as Appendix 1: Details of VO/WO/WUCs with Whom FGDs were conducted.

Code	CBO Name	Village	CBO Type	Number of FGD Participants (including President & Manager)	Date
FGD01	Tanzim (A)	XYZ in Tehsil Buni	Male	14	20-07-2019
FGD02	Women Organization B	XYZ in Tehsil Buni	Female	10	19-07-2019
FGD03	Water and Sanitation Committee C	XYZ in Tehsil Buni	Male	11	19-07-2014
FGD04	Tanzim D	XYZ in Tehsil Buni	Male	12	21-07-2014
FGD05	Youth organization E	XYZ in Tehsil Buni	Female	8	20-07-2019
FGD06	Water and Sanitation Organization F	XYZ in Tehsil Buni	Male	4	20-07-2019
FGD07	WO G	XYZ in Tehsil Buni	Female	10	19-07-2019
FGD08	Women Organization H	XYZ in Tehsil Buni	Female	14	22-07-2014
FGD09	WO I	XYZ in Tehsil Buni	Female	10	23-07-2019
FGD10	Water and sanitation Organization J	XYZ in Tehsil Buni	Male	9	23-07-2019
Grand Total			10 (5 each male & female)	102	

Source: FGDs conducted by the author for the subject research. Note: The names of Organizations and villages were intentionally masked for not revealing their identity due to the sensitive nature of the study.

Table 6 as Appendix 2: Details of KIIs conducted with government officials in Chitral town (08) and Buni (02)

Questionnaire ID	Department	Designation	Gender	Date & Place
KII01	PHED	Sub-Divisional Officer	Male	17-07-2019 Buni

KII02	PHED	Senior Clerk	Male	20-07-2019 Buni
KII03	LGERDD	Engineer	Male	06-08-2019 Chitral town
KII04	LGERDD	Coordinator	Male	06-08-2019 Chitral Town
KII05	PHED	Sub-engineer	Male	07-08-2019 Chitral town
KII06	LGERDD	Administration Officer	Male	07-08-2019 Chitral town
KII07	LGERDD	Monitoring Officer	Male	08-08-2019 Chitral town
KII08	PHED	Sub-engineer	Male	08-08-2019 Chitral town
KII09	LGERDD	Assistant Director	Male	09-08-2019 Chitral town
KII10	PHED	Sub-Divisional Officer	Male	06-08-2019 Chitral town
Grand Total			10 (Male)	

Source: KIIs conducted by author for the subject research. Note: Names and exact designations of officials were deliberately not revealed to keep their identity confidential due to the sensitive nature of the research.

Table 8 as Appendix 3: Consumer Court Cases analyzed

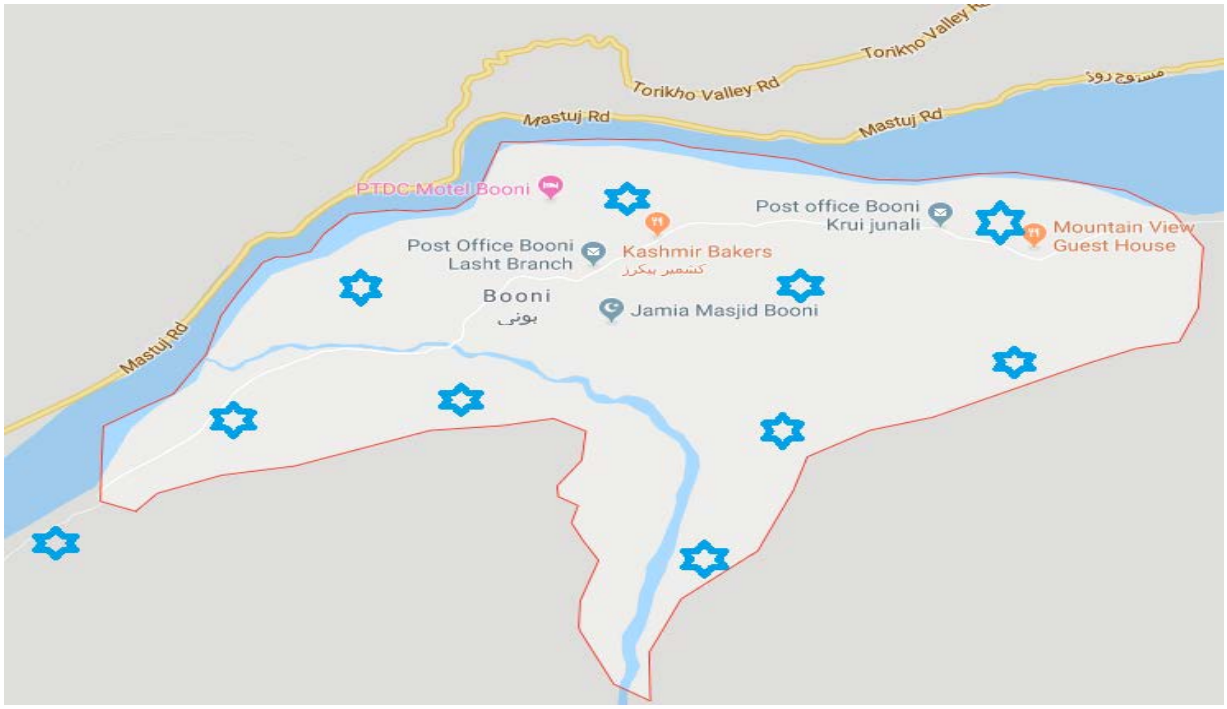
S. No	Code of application	No of petitioners	Date of application	Nature of application	Result/Outcome
1	CC08	01	03-05-2019	Illegal disconnection of water connection by a private company and WSU/TMA not taking action despite several complaints/requests / applicant family is ill due to using contaminated water of a stream	No details available/Pending
2	CC09	01	26-03-2019	Illegal disconnection of water connection by WSU/TMA	Forwarded to relevant department/Pending
3	CC02	01	14-02-2019	Extension in scheme and new connection	The WSU/TMA submitted their response and agreed to give the petitioner new connection from the adjacent village if he buys the required pipe on his own cost.
4	CC03	19	17-09-2018	Alleged mismanagement of funds, not following	Pending/ No details of decision was found in

				design & specifications in WSS by the contractor/PHED/WSU and non-availability of water to the consumers despite tariff collection.	the record.
5	CC07	36	03-09-2018	Alleged mismanagement of funds/corruption in WSS/ not following design and specification/ poor quality work and substandard material use by contractor/ request for enquiry to probe the matter	No details available/pending
6	CC06	01	06-04-2018	Illegal disconnection of water connection	Forwarded to the relevant department for action/reply
7	CC10	01	23-03-2018	Non-availability of Water due damaged pipeline and WSU/TMA asking/forcing to pay tariff	No details available/Pending
8	CC04	01	18-05-2017	Non-availability of water despite tariff collection by WSU	The relevant department in its reply submitted to the court stated that due to shortage of water at source the petitioner is not getting water in summer and the tehsil government has allocated funds for additional pipeline which will resolve the issue.
9	CC12	04	2017 (No specific date found on the application)	Alleged corruption in WSS construction by Contractor and PHED and also not following design and specification/ Non-availability of water at Consumer end	A commission was formed to probe the matter which visited the respective villages, inspected the WSS and interviewed the community. The commission submitted its report and later on the PHED asked the court that as they are not collecting tariff from the consumers in the subject DWSS such that the case does not fall in the consumer court jurisdiction.

10	CC11	01	06-12-2016	Request for new connection as WSU/TMA is not giving water connection	No details available/pending
11	CC01	01	18-03-2016	Non-inclusion/coverage of the village in the PHED scheme as initially proposed in the design	No decision, forwarded to PHED for action
12	CC05	01	No date mentioned on the application	Non-regular and insufficient water despite tariff collection by WSU	Forwarded to the relevant department for action/reply.

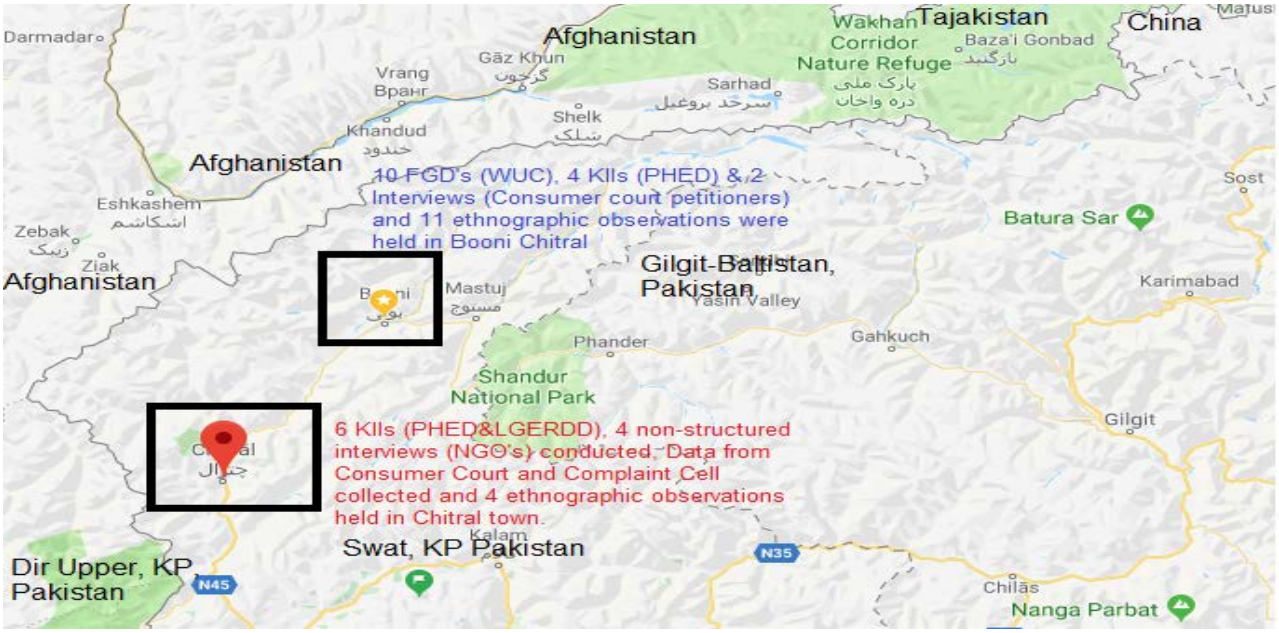
Source: Primary data and photo copies of applications collected from District Consumer Court Chitral

Map 1 as Appendix 4: Map of Booni (Buni) area, villages marked with star in blue color are the places where 10 FGD's and 10 non-participant observations were held.



Source: Adopted and modified from Google Maps 2019.

Map 2 as Appendix 5: Map of Chitral, Khyber Pakhtunkhwa, Pakistan, where primary and secondary data was collected. The two markers with details are self-explanatory.



Source: The map was adopted and modified from google maps (2019).

Appendix 6: Focus Group Discussion Questionnaire

Questionnaire for the Key Informant Interview with PHED, Local Government Officials

Questionnaire _____ _____		
Date	_____//_____//_____	Time (24hr format)
District	_____ _____	Tehsil

Chapter 6 1. Profile of the Government Official

Name:		Designation:		Department/Section:	
Highest level of Qualification (no. of years):				Field of Specialization:	

Working Experience (No. of years):		Placement in Current Position: (No. of months)		Time Governmen
Are you members of one or more of the institutional bodies formed under Local Government Election Rural Development Department (LGERDD)? (please encircle all relevant options)- Multiple choice			i. DDC	ii. TEC

Chapter 7 2. Policy, legal instruments related questions

Key areas/Indicators	Questions	Response
Policy Goals & legal institutional arrangements	1. I am aware of National Drinking Water Policy 2009 & 2018, Khyber Pakhtunkhwa Drinking water policy 2015, and Khyber Pakhtunkhwa Rural Drinking Water Supply Scheme Act 1985 (amendment 2017), what do you think about it and its practicality in the context of a rural and disaster-prone district of Chitral?	

Key areas/Indicators	Questions	Response		
	2. What do you suggest in terms of policy and legal institutional arrangements for Water governance in the rural context of North-west Pakistan, with focus on district Chitral?			
	3. What are the key policy and operational challenges that your department is facing in the provision of clean drinking water to rural population of District Chitral?			
	4. Are you aware of Water User Committees in District Chitral?	Yes	NO	
	5. If yes, which type of Water User Committee?	Mixed (Men & Women)	Women only	Men only
Water User Committees	6. Have you/your department been approached by Water User Committee members/office bearers?	Yes	No	

Key areas/Indicators	Questions	Response		
	7. If Yes, which type of WUC?	Mixed (Men & Women)	Women only	Men Only

	8. If yes, how often did the water user committee/association approached you or department regarding drinking water services?	Twice a month	Once a month	Once every two months	Once every three months	Other (specify)
	9. What do you think about the role of Water User Committees/associations in improving access to clean drinking water at community level?					
	10. What do you think about the role of women Water User Committees/associations in improving access to clean drinking water at community level?					
	11. What do you think about role of Water User committees/associations in tariff collection/water bills payment of government owned and run Water Supply Schemes?					

Enabling environment & Social Norms	**12.** How are the social and cultural norms facilitating or hindering the role of women in the water sector governance?	
	13. What policy and institutional arrangements are in place or has been undertaken by government to enable participation and engagement of women in water sector governance, particularly in the context of rural drinking water supply schemes?	
Operation and Maintenance	14. Who is responsible for the operation and maintenance of government owned and run Water Supply Schemes?	
	15. What is the role of Water User Committees in the operation and maintenance of government owned and run water supply scheme?	
	16. Who is responsible for collecting tariffs in government owned Water Supply Schemes?	
	17. What is the status of tariff collection in government owned water sup-	

	ply schemes?	
Social Accountability Mechanism	18. What social accountability mechanism or similar arrangements are in place for water sector/PHED at the district level? (Complaint Management System etc.)	
	19. How many complaints on average do you/your department receive from water users/water user committees on monthly basis at district level?	
	20. Can you provide some more details on complaints that your department received recently?	
Water Integrity	21. Have you heard of or know about any cases where water user groups have approached courts/filed petition against PHED or other Local government department regarding provision of water related issues?	
	22. Can you provide some more details on the court cases if any?	
	23. Have you or your department been approached by water user committees/associations regarding corruption in drinking	

	water supply services? (petty bribes, major financial corruption, illegal favour, mismanagement of funds etc.)					
	24. If Yes, what type of water user committee/association reported it?	Mixed (Women & Men)	Women only	Men only		
	25. Against whom the corruption allegations were levelled?	PHED	Contractor	Other government department	NGO	Other (Specify)
	26. Did you or your department took any action on the corruption allegations of the water user committee/association?					
	27. Can you provide some more details on few corruption cases identified by the water user associations most recently?					
	28. What do you think about the role of water user committees/associations in ensuring water integrity in the rural drinking water supply services/schemes?					

	29. Any other comments/Suggestions:	

Appendix 7: Key Informant Interviews Questionnaire

Are Women led Water user Groups paving the way for Water Integrity in North West Pakistan? A case study from Khyber Pakhtunkhwa Province, Pakistan **Questionnaire for FGD with WUC's** **District Chitral, KP, Pakistan** July-August 2019

Date

Day		Month		Year	

IDENTIFICATION

Name of Water User Committee	
District **ضلع**	
Tehsil	

Union Council**یونین کونسل**	
Village Council/Neighborhood council	

Village/Mohalla **گاؤں / محلہ**	

1. Name of the WUC Chairperson/Chairman	

2.	Gender جنس	1=Male	2=Female

3.	Committee Type (Mixed, Women, Men)	

4.	WUC office specified: Designated place for records/meetings (yes, NO)					
5.	Date/Year of WUC formation					
6.	WUC Registered with:	Government	INGO	Local NGO	Rural Support organization	Not registered
7.	Membership with higher tier organization? (VO, LSO)	Yes		No		
8.	If yes, with whom?	VO		LSO		
9.	Number of executive body members?					

10. Community representation in executive Body (Composition)	Category	All	Majority	Some	None
	Religious groups	5	4	3	0
	Political Groups	5	4	3	0
	Women	5	4	3	0
	Minorities	5	4	3	0
	Marginalized groups/poor	5	4	3	0

11. Tenure of executive body members (years).	Category	Score
	Up to 2 Years	5
	3 Years	4
	4 Years	3
	5 Years	2
	More than 5 Years	1
12. Selection of Executive Body members	Process	Score
	Election	5
	Selection	4
	Appointment	3
	other	2

13.	Number of total general body members?	
14.	No of House Hold who are part of the WUC?	

15. Number of Monthly Meetings?				
16. Status of the record keeping? (Meeting minutes/financial records/resolutions/etc.)	Properly maintained=5	Partially maintained=3	Occasionally maintained =2	Not maintained=0

17. What was the main motivations for the formation of WUC/CBO?

18. What is the source of water for your daily use? روز مرہ استعمال کے لئے پانی کی فراہمی کا ذریعہ کیا ہے؟

1=Pumping Scheme	2=Dug well	3=Gravity Flow Scheme	4=Any other

19. Who is normally responsible for pitching/collecting water at the household level?

20. How are the social and cultural norms facilitating or hindering the participation of women in WUC?

21. What is the perception of general community about involvement of women in the water sector governance?

22. What is the status of water scheme in your area? آپ کے علاقے میں آب رسانی کی کیا کیفیت ہے ؟ کی سکیم

1=Functional	2=Non Functional	3=Partially Functional	4=Under repair

23. Who constructed your Water Supply Scheme?

24. Are you satisfied with the quality of the Construction Work?

Yes	No

25. If No, What's wrong?

26. Are you satisfied with availability of water on daily basis?

کیا آپ اپنے روز مرہ استعمال کے لیے پانی کی فراہمی سے مطمئن ہیں؟

1=Satisfied	2=Not satisfied	3=Partially satisfied

27. Is the water provided by the water supply scheme sufficient for your daily use? جو پانی آپ کو واٹر سپلائی سکیم سے مہیا کیا جاتا ہے کیا وہ آپ کی روز مرہ کے استعمال کے لئے کافی ہے

1=Yes	2=No

If No, why اگر نہیں تو کیوں _____

28. Is the water fit for drinking? کیا پانی پینے کے قابل ہوتاہے ؟

1=Yes	2=No

If Not, why اگر نہیں تو کیوں _____

29. How successful is the WUC in the provision of clean drinking water to the community?

100%	75%	50%	25%	0%

30. Are you satisfied from the services and efforts of the water user committee?

Yes	No

31. Do you get your **Water Bills**? کیا آپ کو **پانی کا بل** باقائدگی سے موصول ہوتا ہے ؟

1=Yes	2=No	3. Not applicable

32. If yes, do you pay your water bill regularly? کیا آپ اپنا پانی کا بل باقاعدگی سے ادا کرتے ہیں ؟

1=Yes	2=No	3. Not applicable

a. If yes, where you deposit your water charges? Bank/WUC/PHED/Others

b. If No, Why _____

33. Does the office bearer of WUC inform you about issues and information regarding your Water supply scheme?	1=Yes	2=No

آپ کے علاقے کی آب رسانی سکیم اور اس کے مسائل کے بارے میں آپ کو بروقت WUC کیا آگاہ کرتی ہے ؟		

34. How often do you contact govt officials regarding water related issues?	
35. Who is responsible for the operation and maintenance of water supply scheme?	
36. If WUC/Community responsible for operation and maintenance then how often do you repair the scheme?	
37. How do you raise funds for operation and maintenance of the water supply scheme?	
38. What is the PHED/other government departments contribution in the Operation and maintenance funds?	

39. Are you aware of any official complaint mechanism, where you can register your complaint/s about water supply services?	Yes	No

40. If yes, which mechanism?	

41. Have you registered a complaint regarding your Water Supply Scheme/services?		Yes	No
42. If yes, what was it about?			
43. To whom do you submitted your complaint?			
44. Did you get, any response?		Yes	No

45. Was the complaint resolved?	Yes	No
46. Are you satisfied with the response/resolution of your complaint?	Yes	No

47. If No, state the reason?	

48. Can you provide some more details about the complaint/s registered?	

49. Have you witnessed corruption in Water Supply Scheme, including small bribes?	Yes	NO
50. If yes, in which form?	In Kind	Cash

51. If yes, by whom? (PHED, NGO, Community elder, other govt department, elected representative)	

52. Can you provide some details about few specific corruption case/s?	

53. Did the WUC went to court/consumer court against the PHED, Govt, NGO, Politician with reference to the Water supply scheme/service?	Yes	No

54. If Yes, against whom, please provide some more details about the court case/s?	
55. What was the outcome of the court case/ court decision?	
56. Please elaborate if any significant changes occurred in the availability of services including water supply as a result of the court case.	

List of References

Aga Khan Foundation (n.d.) 'Water and Sanitation Extension Programme (WASEP)'. Accessed 25 August 2019 <https://www.akdn.org/our-agencies/aga-khan-agency-habitat/aga-khan-agency-habitat-water-and-sanitation-programmes>.

Ahmad I., M. Haq, A. Sattar and Pakistan Institute of Development Economics (2010) 'Factors Determining Public Demand for Safe Drinking Water: A Case Study of District Peshawar'. Islamabad, Pakistan: Pakistan Institute of Development Economics.

Angrosino, M.V. (2008) *Doing Ethnographic and Observational Research*. London: Sage Publications.

Associated Press Pakistan (2018) 'Chairman Water Commission Calls for Strategies to Resolve Water Issues'.

Azizullah A., M. N. K. Khattak, P. Richter and D. Häder (2011) 'Water pollution in Pakistan and its impact on public health—a review', *Environment International* 37(2): 479–497.

Citizen Engagement for Social Service Delivery (n.d.) 'The Citizen Engagement for Social Service Delivery (CESSD) Project'. Accessed 12 March 2019 <http://cessd.pk/>.

Currie-Alder, B., S. M. R. Kanbur, D. Malone and M. Rohinton (2014) *International Development: Ideas, Experience, and Prospects*. Oxford, UK: Oxford University Press.

Cronin, A. A., P. K. Mehta and A. Prakash (2015) *Gender Issues in Water and Sanitation Programmes: Lessons from India*. Thousand Oaks: SAGE India.

Dad, A.A. and S. Mansoor (2016) 'The Network of LSOs in Chitral: A Case Study Chitral Community Development Network'. Islamabad, Pakistan: RSPN.

Davis, J. (2004) *Corruption in public service delivery: Experience from South Asia's water and sanitation sector*. Cambridge, USA: MIT.

Pakistan Poverty Alleviation Fund (2015) 'Situation Analysis & Baseline Surveys for Poverty Reduction through Rural Development in KPK, FATA & Baluchistan'. Islamabad, Pakistan: Poverty Alleviation Fund.

Dawn Newspaper (2019) 'Chitral Contractors Accuse Officer of Corruption' in *Dawn*, 24 May 2019.

Dawn Newspaper (2019) 'Three killed as under-repair pipeline falls into river' in *Dawn*, 08 August 2019.

Das, B., C. Fernández, Gaag, P. McIntyre and M. Rychlewski (2016) 'Water Integrity Global Outlook 2016'. Berlin, Germany: Water Integrity Network.

Daud M. K., M. Nafees, S. Ali, M. Rizwan, R. A. Bajwa, M. B. Shakoor (2017) 'Drinking Water Quality Status and Contamination in Pakistan',, BioMed Research International 2017: 1-18.

Farooqi, H.G. (2014) 'Chitral's Mega Projects Fall Victim to Corruption' in *Chitral Today,* 22 July 2014.

Fenno Jr., R. F. (1986) 'Observation, Context, and Sequence in the Study of Politics', *The American Political Science Review* 80(1): 3-15.

Government of Khyber Pakhtunkhwa (n.d.) 'Community Driven Local Development Programme (CDLD)'. Accessed 14 September 2019 <http://cdldta.pk/index.php>.

Government of Khyber Pakhtunkhwa (2015) *Khyber Pakhtunkhwa Drinking Water Policy 2015* (Khyber Pakhtunkhwa). Khyber Pakhtunkhwa, Pakistan: Khyber Pakhtunkhwa.

Government of Khyber Pakhtunkhwa (2013) *Khyber Pakhtunkhwa Local Government Act 2013* (Khyber Pakhtunkhwa). Khyber Pakhtunkhwa, Pakistan: Khyber Pakhtunkhwa.

Government of Khyber Pakhtunkhwa (n.d.) 'Local Government Election and Rural Development Department (LGERDD)' Accessed 14 September 2019 <http://lgkp.gov.pk/>.

Government of Khyber Pakhtunkhwa (n.d.) 'Management Information System of CDLD'. Accessed 25 August 2019 <http://103.240.220.67:8087/RevisedDashboard.aspx>.

Government of Khyber Pakhtunkhwa (2014) *Right to Public Services Act 2014* (Khyber Pakhtunkhwa). Khyber Pakhtunkhwa, Pakistan: Government of Khyber Pakhtunkhwa.

Government of Khyber Pakhtunkhwa (1985) *The Khyber Pakhtunkhwa Rural Area Drinking Water Supply Scheme Act, 1985* (Khyber Pakhtunkhwa). Khyber Pakhtunkhwa, Pakistan: Government of Khyber Pakhtunkhwa.

Government of Pakistan (1860) *Pakistan Penal Code (Act XLV of 1860)* (Pakistan). Islamabad, Pakistan: Government of Pakistan.

Government of Pakistan (1973) *The Constitution of Islamic Republic of Pakistan 1973* (Pakistan). Islamabad, Pakistan: Government of Pakistan.

Government of Pakistan (2009) *National Drinking Water Policy 2009* (Pakistan). Islamabad, Pakistan: Government of Pakistan.

Government of Khyber Pakhtunkhwa (n.d.) 'Notified Public Services Under Right to Public Services Act 2014'. Accessed 25 August 2019 <http://www.kprts.gov.pk/rtsweb/notifiedpublicservices.aspx>.

Government of Khyber Pakhtunkhwa (n.d.) 'Public Health Engineering Department'. Accessed 12 March 2019 <http://public_health_engin.kp.gov.pk/>.

Government of Khyber Pakhtunkhwa., Anonymous 2019. List of Registered Complaints in Tehsil Municipal Administration (TMA) Office, District Chitral. Government record edn.

Hakim, F., M. Denouel, L. Muzila, M. Rudolph and N. Wilcock (eds) (2019) *Civil Society for Development: Opportunities through the United Nations Convention Against Corruption.* Vienna: United Nations.

Huntington, S. P. (1968) *Political Order in Changing Societies*. New Haven: Yale University Press.

Jabeen, A., X. Huang and M. Aamir (2015) 'The Challenges of Water Pollution, Threat to Public Health, Flaws of Water Laws and Policies in Pakistan'*, Journal of Water Resource and Protection* 7(17): 1516-1526.

Jenkins, M. and Transparency International (2017) 'The Impact of Corruption on Access to Safe Water and Sanitation for People Living in Poverty'. Berlin, Germany: Transparency International.

International Monetary Fund (2015) 'Is the Glass Half Empty Or Half Full? Issues in Managing Water Challenges and Policy Instruments'. Washington, DC, USA: International Monetary Fund.

Malena, C. with Forster, R. and Singh, J. (2004) 'Social Accountability: An Introduction to the Concept and Emerging Practice', Social Development Paper 76, Washington DC: World Bank.

Mohammad, N. (2017) 'Role of Kabul River in Socio-Economic Activities and Associated Environmental Problems'*, Central Asiatic Journal* 67(1): 101-112.

Nabi G., M. Ali, S. Khan and S. Kumar (2019) 'The Crisis of Water Shortage and Pollution in Pakistan: Risk to Public Health, Biodiversity, and Ecosystem'*, Environmental Science and Pollution Research* 26(11): 10443-10445.

The World Conservation Union (2004) 'Chitral: Conservation Strategy'. Peshawar, Pakistan: IUCN.

Nye, J. S. (1967) 'Corruption and Political Development: A Cost–Benefit Analysis', *American Political Science Review* 61(2): 417–27.

Pakistan Council of Research on Water Resources and US-Pakistan Center for Advanced Study in Water (2016) 'National Research Agenda on Water 2016-25'. Islamabad, Pakistan: Paki-

stan Council of Research on Water Resources and US-Pakistan Center for Advanced Study in Water.

Olson, M.J. (1971) *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, USA: Harvard University Press.

Organization for Economic Co-operation and Development (2018) *Implementing the OECD Principles on Water Governance*. Paris, France: OECD Publishing.

Qureshi, D. A. and A. H. Sayed (2014) 'Situation Analysis of the Water Resources of Lahore Establishing A Case for Water Stewardship'. Pakistan: WWF.

Institute for Social Justice Pakistan (2018) 'Report on Water and Sanitation in Pakistan to the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Sustainable Human Development Section, Special Procedures Division, UNOG-OHCHR' (2018). Pakistan: Institute for Social Justice Pakistan.

Rose-Ackerman, S (1978) *Corruption: A Study in Political Economy*. New York: Academic Press.

Ringold, D. (2012) *Citizens and Service Delivery: Assessing the use of Social Accountability Approaches in Human Development Sectors*. Washington. DC, USA: World Bank.

Saleem, S., W. Ali and M. Afzal (2018) 'Status of Drinking Water Quality and its Contamination in Pakistan', *Journal of Environmental Research* 2(16): 1-2.

Schwartz-Shea, P. and D. Yanow (2012) *Interpretive Research Design: Concepts and Processes*. New York: Routledge.

World Bank (1997) *User Organizations for Sustainable Water Services*. World Bank Technical Paper No. 354. Washington, DC, USA: World Bank.

Semi, K. (2005) 'Women and Water Issues of Entitlements, Access and Equity', pp. 79-130. Washington, DC, USA: World Bank.

Stasinopoulou, D. (n.d.) 'The Kalash People in Northern Pakistan'. Accessed 20 September 2019 <https://elinepa.org/en/the-kalash-people-in-northern-pakistan/>.

Stanley, D. (2003) 'What do we Know about Social Cohesion: The Research Perspective of the Federal Government's Social Cohesion Research Network', *The Canadian Journal of Sociology* 28(1): 5-17.

Tropp, H., A. Jiménez and H. L. Deunff (2017) 'Water Integrity: From Concept to Practice', in E. Karar (ed.) *Freshwater Governance for the 21st Century* pp. 187-203. Switzerland: Springer.

United Nations Children's Fund (2017) 'Thirsting for a Future: Water and Children in a Changing Climate'. New York, USA: UNICEF.

United Nations Development Programme Pakistan (2016) 'Water Security in Pakistan: Issues and Challenges'. Islamabad, Pakistan: UNDP Pakistan.

Water Integrity Network (n.d.) (a webpage of Water Integrity Network Association (WIN) e.V). Accessed 9 May 2019 <https://www.waterintegritynetwork.net/>.

Wendling, Z. A., J. W. Emerson, D. C. Esty, M. A. Levy, A. de Sherbinin, (2018). '2018 Environmental Performance Index'. Accessed 17 May 2019 <https://epi.envirocenter.yale.edu/downloads/epi2018reportv05171901.pdf>.

World Wide Fund for Nature (2007) 'Pakistan's Waters at Risk: Water and Health Related Issues in Pakistan and Key Recommendations'. Lahore, Pakistan: WWF.

World Bank (2015) *Opening the Black Box: The Contextual Drivers of Social Accountability*. Washington, DC, USA: World Bank.

Young, W. (2019) 'Pakistan Getting More from Water'. Washington, DC, USA: World Bank.

Zinnbauer, D. and R. Dobson (2008) 'Global Corruption Report (GCR) 2008'. New York, USA: Transparency International.

Notes