

WATER RIGHTS

An Assessment of Afghanistan's Legal Framework Governing Water for Agriculture



UNITED NATIONS ASSISTANCE MISSION IN AFGHANISTAN

RULE OF LAW UNIT - OCTOBER 2016

Table of Contents:

Executive summary.....	1
I. Water’s critical role in Afghanistan’s economic development	2
A. Water scarcity hinders agricultural development	3
B. Deteriorated infrastructure hinders agricultural development	4
C. Rehabilitation of the water sector is a national priority	5
II. Legal bases for water rights.....	5
A. Afghanistan’s Constitution	6
B. Statutory Laws	6
1. Civil Code	6
2. Water Law.....	6
a. Integrated water resources management approach	7
b. Permitting process for water usage	9
c. Criminal penalties for violators	10
d. Dispute resolution procedures.....	10
C. Islamic law	12
D. Traditional customs and practices.....	13
III. Nature of water disputes	14
IV. Effectiveness of existing legal frameworks for resolving water disputes	16
A. The Water Law’s administrative framework is not fully implemented	16
B. Even when the Water Law’s administrative framework is implemented, substantive gaps may remain.....	17
C. Continued public distrust hinders formal dispute resolution mechanisms	18
D. Traditional dispute resolution mechanisms are well regarded but carry their own concerns	19
V. Conclusion and recommendations.....	20

Executive summary

“Water is the lifeblood of the people of Afghanistan, not just for living but also for the economy, which has traditionally been dominated by agriculture.”¹ Nearly “80% of Afghanistan’s population derive their livelihood from the agriculture sector.”² And, agriculture remains one of Afghanistan’s principal growth sectors.³

But, decades of conflict combined with deteriorating infrastructures and prolonged droughts have hindered the agricultural sector’s ability to advance.⁴ Agricultural development remains largely dependent on weather conditions in any given year.⁵ The vast majority (82%) of water for agriculture is derived from surface water sources, which rise or fall depending on rainfall or snowmelt.⁶ The remaining 18% is from groundwater sources, which are experiencing rapidly decreasing water levels.⁷

Constraints on the natural supply of water are exacerbated by structural inefficiencies that fail to adequately harness water sources and maximize utilization for agricultural output.⁸ Years of conflict have destroyed or disrupted maintenance of Afghanistan’s centuries-old irrigation systems, thereby reducing overall efficiency and hindering economic development of the agricultural sector.⁹

The demand for water to support agricultural development often results in disputes over water rights, which are derived from guarantees secured by Afghanistan’s Constitution, statutory laws, Islamic law, and traditional customs and practices. The stakes involved in these disputes are high as many rural communities depend on reliable access to water sources to grow the crops and nourish the livestock on which their lives and livelihoods depend.¹⁰

In Afghanistan, both formal and informal means are used to resolve these disputes. The Water Law enacted in 2009 anticipates a complex regulatory regime controlled by government ministries with strong stakeholder participation from local water users. This formal mechanism is supplemented by traditional customs and practices coalesced around the local water master’s or *mirab*’s longstanding authority and community respect in relation to water rights.

During 2015, UNAMA Rule of Law began a field study to assess the effectiveness of these dispute resolution mechanisms. This report summarizes the results of this field study and provides practical recommendations to facilitate the resolution of disputes relating to access to water for agriculture in a timely manner and without escalation to violence. One key finding is that, notwithstanding the Water Law’s comprehensive regulatory scheme, water users continue to rely exclusively or, at least, predominately on local water masters to resolve disputes. There are several reasons for this divergence in the use of formal versus informal dispute resolution mechanisms:

- The complex administrative structure anticipated by the Water Law is not yet fully implemented.
- Substantial gaps remain in the Water Law’s scope, particularly given its incorporation of undefined customs and practices, multiple stages of review, and potentially conflicting provisions of the Civil Code relating to priority water uses.

- The public continues to perceive—whether correctly or not—the judiciary as among the most corrupt institutions in Afghanistan.

Although most persons surveyed expressed satisfaction with informal means of dispute resolution, concerns remain about the lack of transparency and consistency in the rules or practices being applied. The lack of transparency and absence of established practices governing customary water rights renders informal dispute mechanisms vulnerable to external influences and pressures. These concerns are particularly relevant to disenfranchised groups such as women and children whose voices often are not heard in Afghanistan's traditionally male-dominated society.

To address these concerns and strengthen the legal framework applicable to the resolution of disputes relating to water rights, the following recommendations should be considered:

- The Water Law's administrative structure should be fully implemented in all water basins by establishing the councils, sub-councils, and user associations the law anticipated.
- The Supreme Council of Water Affairs Management, which the Water Law established to improve coordination and implementation of water resource programs, should utilize its authority to streamline the management of water resources among the responsible ministries and departments.
- The process for dispute resolution with the possibility of judicial review thereafter should likewise be streamlined so that administrative decisions may be implemented without interfering with crop growth or harvesting. Temporary orders or forms of relief should be fashioned to ensure that crops are not lost due to delays in resolving water rights.
- To ensure adequate remedies for those whose water rights have been violated, administrative or judicial officials should award financial compensation for direct and consequential damages, including fair market value of any crops lost, resulting from the violation.
- To promote greater transparency, the traditional practices and customs relating to water rights, such as the *Taximot Hakobe Ab*, should be made publicly available to all water users through provincial and district libraries or the Internet, along with copies of formal and informal decisions made by administrative bodies, courts, and *mirabs*.

I. Water's critical role in Afghanistan's economic development

The importance of water to Afghanistan's development and the well-being of its people cannot be overstated. The Food and Agriculture Organization of the United Nations observed: "Water is the lifeblood of the people of Afghanistan, not just for living but also for the economy, which has traditionally been dominated by agriculture."¹¹ The Government of Afghanistan has likewise observed: "The link between agriculture and water is explicit; water is essential to both irrigated and rain-fed systems of agriculture in Afghanistan, as well as its obvious requirement in livestock farming systems."¹²

Agriculture is one of the country's main economic drivers. Studies establish that “[a]lmost 80% of Afghanistan’s population derive their livelihood from the agriculture sector.”¹³ Agriculture is particularly important in rural areas of Afghanistan where between 75-80% of the population lives.¹⁴ It is the “mainstay” of economic life¹⁵ for 32% of all females and 68% of all males actively engaged in Afghanistan’s economy.¹⁶

Altogether agricultural products derived from horticulture and livestock (excluding rugs and carpets that depend on wool) comprised 75% of Afghanistan’s licit exports in 2014-2015.¹⁷ And, licit agriculture accounted for 30% of Afghanistan’s total gross domestic product in 2010¹⁸ and nearly 24% of the country’s total gross domestic product in 2014.¹⁹

Despite this decline in agriculture’s contribution to the total gross domestic product, agriculture remains the “sector with the greatest potential for job absorption and economic impact on rural Afghanistan.”²⁰ Decades of conflict combined with deteriorating infrastructures and prolonged droughts, however, have hindered the agricultural sector’s ability to advance.²¹ In establishing its priorities for economic development, the government recognized that: “Decades of socio-political instability, floods and prolonged droughts, deteriorated and aging water infrastructure, and unstable security, coupled with a deferred approach toward investment in critical water infrastructure, continue to hinder the ability of the water sector to advance.”²²

This report will first examine these primary constraints on Afghanistan’s agricultural development: water scarcity and dilapidated conveyance systems.²³ Next, it will examine how these constraints fuel disputes over access to water for irrigation. The capacity of Afghanistan’s legal system to resolve these disputes through informal and formal means is assessed in the last section of this report.

A. Water scarcity hinders agricultural development

Despite “relatively abundant” water resources flowing through Afghanistan, agricultural development remains largely dependent on weather conditions in any given year.²⁴ “About 50 percent of precipitation occurs in winter (January to March), much of which falls as snow in the central mountainous region. A further 30 percent falls in spring (April to June). Runoff from snowmelt in the spring and summer months, when day temperatures are high, is the lifeblood of Afghan agriculture.”²⁵ When in the course of only a few months the snow melts and the associated runoff subsides, “[w]ater scarcity abounds for the remaining months of the year.”²⁶ This dependency on weather conditions renders Afghanistan’s agricultural sector “highly vulnerable to environmental stresses.”²⁷

The vast majority (82%) of water for agriculture is derived from surface water sources.²⁸ The remaining 18% is from groundwater sources.²⁹ Recurrent droughts and reduced precipitation have prompted many farmers, particularly in the southern and northern regions, to increasingly use groundwater to irrigate agricultural lands.³⁰ Farmers tap groundwater sources through springs, *karez*s, or by digging shallow and deep wells.³¹

The increased demand on groundwater sources for irrigation combined with recurrent droughts have “significantly depleted water tables and aquifers throughout Afghanistan.”³² According to one estimate, groundwater sources have been reduced by as much as 50% over the past several years.³³ As a result, about 60% to 70% of existing *karez*s and 85% of the existing

shallow wells are not yielding an adequate supply of water.³⁴ Of particular concern is the unregulated sinking of deep and shallow wells by some farmers, without consideration for the impact these wells may have on the groundwater table.³⁵

B. Deteriorated infrastructure hinders agricultural development

Constraints on the natural supply of water are exacerbated by structural inefficiencies that fail to adequately harness water sources and maximize utilization for agricultural output.³⁶ “Except in a few areas where rainfed agriculture can be practiced, agricultural production in most of the country is not possible without irrigation as the rainfall is either meager or unreliable.”³⁷ Indeed, according to one study, “[a]bout 85% of the total crops grown in Afghanistan are grown under irrigation. Canal irrigation is by far the most commonly used method of irrigation in Afghanistan, supplying water to nearly 75% of agricultural land located mostly in the north, west, and southwest regions of the country.³⁸ These canals primarily get water from snowmelt rivers or streams of varying size.³⁹ At different locations, small diversion structures or weirs are installed to divert water to the irrigation canals.⁴⁰ The diversion structures are both open and gate-fitted to control water flow.⁴¹ On simpler canals, farmers themselves control the flow of water by opening and closing the diversions by filling them with mud and clothes.⁴² This process is intended to be monitored or administrated by local water masters (*mirabs*) or head water masters (*mirab bashis*).⁴³

Typically, the *mirab* is a community leader or elder elected by local farmers to manage operation of the irrigation system and control water distribution according to agreed arrangements.⁴⁴ The *mirab* also may be called upon to settle disputes among farmers relating to water use.⁴⁵ One or two assistants may work with the *mirab*, who is paid in-kind for his efforts with allocations of wheat or other farm products.⁴⁶

Afghanistan's traditional irrigation systems are centuries old⁴⁷ and continue to be widely used.⁴⁸ Traditionally, operation and maintenance of the irrigation system has been the responsibility of the community where the irrigation system is located.⁴⁹ The *mirab* is chiefly responsible for inspecting the irrigation system and undertaking necessary maintenance or repairs.⁵⁰ Through a system known as *hashr*, members of the community traditionally provide the labor required to keep the irrigation system running.⁵¹ Although regular maintenance is scheduled to be carried out periodically when sufficient labor is available, major repairs often cannot be carried out without governmental support.⁵²

Years of conflict have destroyed or disrupted maintenance of irrigation systems, thereby reducing overall efficiency and hindering economic development of the agricultural sector.⁵³ A 2002

The Nangarhar Canal is one example of canal irrigation in Afghanistan. It leads approx. 7 km from the water intake at Kabul river near Darunta dam around Jalalabad, crossing several riverbeds in mighty syphon constructions, and irrigating several hectares of farmland, before being led through a 1 km long tunnel, crossing a little 50 m deep canyon in a syphon and being led to the plain of Hisarshahi, again irrigating several hectares of farmland. Although the Nangarhar Canal is larger than most canals in Afghanistan, the same type of sophisticated mixture of surface led canals, combined with tunnels (called karezes) and siphons to cross impediments, can be found all over the country in smaller versions.

study, for instance, estimated that irrigation canals were “restricted up to eighty percent of their capacity by siltation, bank damage and vegetation growth.”⁵⁴ Additionally, ongoing conflict has adversely affected approximately 27% to 36% of all irrigation systems.⁵⁵ The government estimates that, during the past 30 years of conflict, “about 4,850 irrigation networks were destroyed and do not work at all.”⁵⁶ As a result, the amount of land under irrigation decreased from 2.8 to 3.0 million ha before 1978 to only 1.5 million ha by 2002.⁵⁷

Since then, the government has rehabilitated or constructed 1,850 irrigation networks, increasing the total irrigated area by 350,000 ha in 2011.⁵⁸ Most recently, with support from the World Bank’s International Development Association, the Ministry of Energy and Water completed rehabilitation of the Spin Wala Canal in Kandahar Province. Reconstruction and improvements to the canal have increased irrigation capacity from only 7.4 hectares of farmland before rehabilitation to 2,145 hectares of farmland after rehabilitation.⁵⁹ Additionally, on 1 October 2016, the contract for the construction of the second phase of the Kajaki industrial dam was signed by the Minister of Energy and Water.⁶⁰ This project is anticipated to irrigate an additional 500,000 jeribs of land year round.

Yet, inefficiencies remain: “in many cases, water loss amounts to more than 50 percent, and the amount of water withdrawn is grossly disproportionate to the share of economic added value created.”⁶¹ According to the government, agricultural uses account for more than 90% of total water consumption.⁶² The Food and Agriculture Organization of the United Nations provided an even higher estimate of agricultural water use. In 1998, the Organization estimated that agricultural uses accounted for as much as 98% of total water use, leaving only 1% for municipal use (drinking water and sanitation) and 1% for industrial use.⁶³ The economic value added, in contrast, amounts to only approximately 30% of the country’s licit economy.⁶⁴

C. Rehabilitation of the water sector is a national priority

Given the importance of agriculture to Afghanistan’s economy and the constraints water scarcity and dilapidated water systems impose on expansion of agricultural development, it is not surprising that rehabilitation of the water sector is one of Afghanistan’s “major national priorities.”⁶⁵ The 2008 Water Sector Strategy approved by the Ministry of Energy and Water and other responsible ministries explicitly links development of the water sector with agricultural development and the fight against poverty, particularly in rural areas.⁶⁶ The government has recognized that “rehabilitation of irrigation networks has a quick impact on farmers, while new irrigation network development has a large impact on rural areas by expanding irrigated land. Therefore, both the rehabilitation and new development of irrigation networks are urgently needed to convey water from resources to irrigation fields, and to expand irrigation fields for more stable crop harvesting even in drought years.”⁶⁷

II. Legal bases for water rights

Until the government’s efforts to rehabilitate and develop Afghanistan’s irrigation networks are fully realized, there will be a continuing demand for water to support the country’s agricultural needs, including food supply. This demand often results in disputes over water rights, which are derived from formal guarantees secured by Afghanistan’s Constitution and

statutory laws, as well as through informal justice mechanisms such as Islamic law and traditional practices and customs. All of these sources of rights will be examined in this section.

A. Afghanistan's Constitution

The Preamble to Afghanistan's Constitution broadly states that its goal is to achieve a "prosperous life and sound living environment" for all citizens. Article 9 reflects the importance of sound management of natural resources, including water. It states that the "[p]rotection, management and proper utilization of public properties as well as national resources shall be regulated by law." A similar obligation to protect natural resources is contained in Article 15, which requires the government to "adopt necessary measures to "improve forests as well as the living environment."

The constitution further obliges the government, "within its financial means," to "design and implement effective programs to develop agriculture and animal husbandry."⁶⁸ It identifies agricultural as a means of improving the "economic, social, and living conditions" of farmers, herders, and other citizens.⁶⁹

B. Statutory Laws

These general constitutional guarantees are more particularly defined in Afghanistan's statutory laws. There are two primary sources of water rights within Afghanistan's statutory law: the Civil Code and Water Law.

1. Civil Code

The Civil Code provides that water from rivers and their tributaries are "public property."⁷⁰ Everyone, however, has the right to use water to irrigate or draw on a stream for irrigation of private lands, including for irrigation of crops and trees, so long as the usage is not "contrary to public interests or special laws."⁷¹ The Civil Code does not clarify what types of uses are or are not "contrary to public interests," except noting that the "usage of water from public streams and its distribution shall be exercised with due observation of prevention of harm to public interests and proportionate to the lands that it is intended to be irrigated."⁷²

No one may build a watercourse or irrigation canal without the right to do so.⁷³ A person who builds an irrigation canal on his own property has the right to use it any way he wishes and no one else can use it without the builder's permission.⁷⁴ Where an irrigation canal is lawfully built on another person's property pursuant to a right of way or passage, the other property owner cannot deprive the builder of its use.⁷⁵ However, a landowner seeking to irrigate his land cannot compel owners of lands downstream to let water pass through their lands unless he has a right of way or passage for water through those lands.⁷⁶ If a right of way or passage for water already exists, the right shall remain so long as there is no showing of illegitimacy or obvious harm.⁷⁷ These provisions are generally consistent with Article 40 of the Afghan Constitution, which protects private ownership of property.

2. Water Law

The Water Law was adopted to enforce the protections afforded by Constitution Article 9 through regulations aimed at promoting "conservation, equitable distribution, and the efficient

and sustainable use of water resources.”⁷⁸ The law is intended to strengthen the national economy and secure the rights of water users in a manner consistent with the principles of Islamic law and the “praiseworthy customs and traditions of the people.”⁷⁹

Like the Constitution and Civil Code, the Water Law provides that water “belongs to the public” and “people of Afghanistan.”⁸⁰ Water may be used “with due consideration for the praiseworthy customs and traditions of the people to meet the needs for drinking water, livelihood, agriculture, industry, public services, energy production, transportation, navigation, fisheries and the environment.”⁸¹ Of these varied uses, the law gives priority to the use of water for “drinking” and “livelihood.”⁸²

The use of water shall be free.⁸³ Service providers, however, may charge fees for “supplying, storage, transmission, diversion, treatment, and operation and maintenance of the water supply and irrigation systems and other related activities. . . .”⁸⁴ A water user who does not pay the required fees to a service provider or who misuses the water services may have his right to use water suspended.⁸⁵

By distinguishing between “agriculture” and “livelihood,” Article 6 of the Water Law suggests that these words are intended to have different meanings. Thus, by its plain terms, the Water Law does not appear to give priority to use of water for agriculture as opposed to its use for drinking and livelihood.

The government is obliged to protect and manage water as a natural resource.⁸⁶ To this end, the Water Law identifies 11 different ministries or departments with responsibilities over specific aspects of water protection, control, and management.⁸⁷ Overall coordination for water resource management is intended to be provided by the Supreme Council of Water Affairs Management whose members are appointed by the President.⁸⁸

a. Integrated water resources management approach

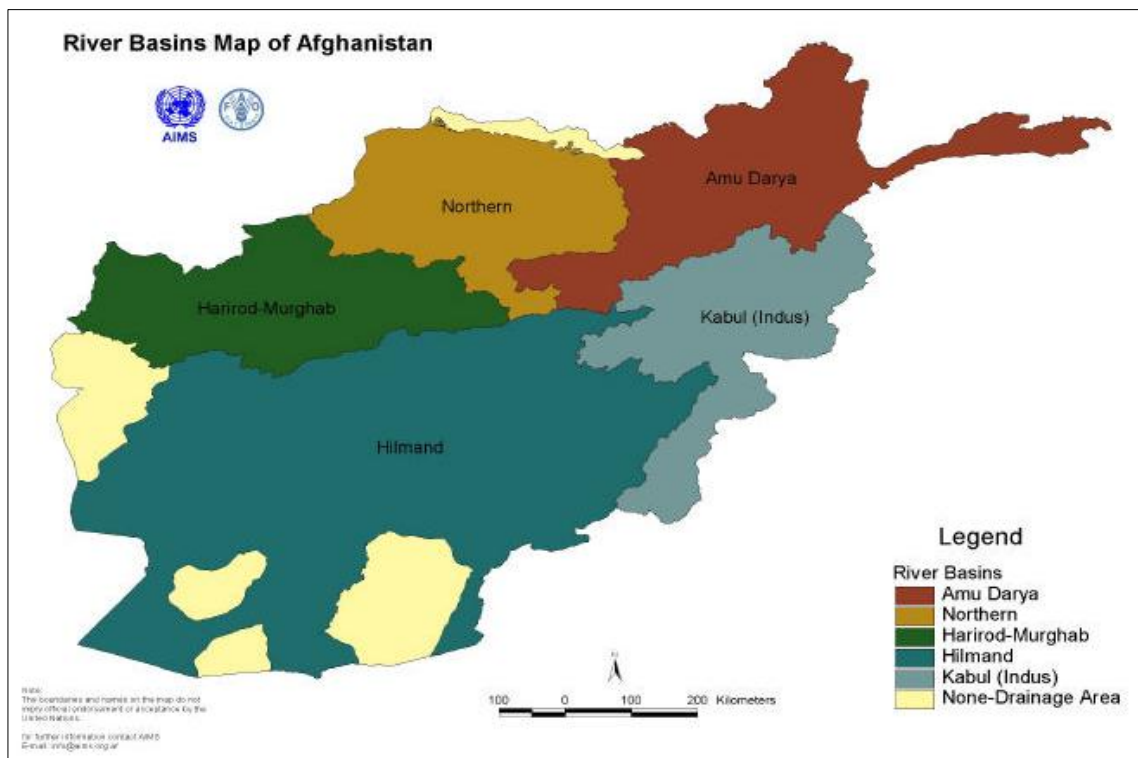
Like the Water Sector Strategy, the Water Law adopts an integrated water resources management approach based on a transition towards river basin development and a strong role for local stakeholder participation.⁸⁹ The Water Sector Strategy, for instance, stressed the need

The Water Law delegates primary and supporting responsibilities over aspects of water protection, control, and management to the following 11 Afghan ministries or departments:

1. *Ministry of Energy and Water*
2. *Ministry of Mines*
3. *Ministry of Public Health*
4. *National Environmental Protection Agency*
5. *Ministry of Agriculture, Irrigation, and Livestock*
6. *Ministry of Urban Development*
7. *Ministry of Rural Rehabilitation and Development*
8. *Ministry of Transport and Aviation*
9. *Ministry of Foreign Affairs*
10. *Ministry of Interior*
11. *Ministry of Border and Tribal Affairs*

for “end user” participation in decision making relating to water resource management, operation, and maintenance of water supply systems, as well as allocations of water use.⁹⁰ Likewise, the Water Law encourages stakeholder involvement in overall water resource planning and management, recognizing that this involvement is particularly important at the local level.⁹¹

To this end, the Water Law establishes river basin agencies and councils to promote the involvement and participation of local water users and other relevant stakeholders in the decision-making process.⁹² These river basin councils are meant to be established in each of Afghanistan's five river basins identified in the map below.



Among other things, the river basin councils have the following responsibilities in their respective basins:

- determining water allocations in accordance with national water policy;
- managing and monitoring the right to use water;
- establishing criteria to evaluate, adjust, and deny water use permits;
- issuing, modifying, and canceling water use permits;
- supervising activities and reviewing decisions of sub-basin councils; and
- resolving disputes that arise due to the distribution and use of water.⁹³

In addition to the river basin agencies and councils, the Water Law requires the Ministry of Energy and Water to establish sub-basin councils composed of members representing local “water users, relevant government institutions, and other relevant stakeholders.”⁹⁴ The sub-basin councils have similar dispute resolution powers as water basin councils but no authority

to issue or modify water use permits.⁹⁵ As already noted, the decisions and activities of the sub-basin councils are subject to review and supervision by the relevant water basin council.⁹⁶

In keeping with the integrated approach to water resource management, the Water Law anticipates that local water user associations will play a key role in protecting and managing water resources.⁹⁷ The law establishes two different associations: water user associations and irrigation associations. Article 10(12) requires the Ministry of Energy and Water to establish water user associations, which are voluntary assemblies of “real and legal persons” who meet to consider the “social, economic and vocational use of water” within their communities.⁹⁸ Article 11(5) charges the Ministry of Agriculture, Irrigation, and Livestock with establishing irrigation associations.⁹⁹ The role of irrigation associations is detailed in Article 23, which states that the Ministry of Agriculture, Irrigation, and Livestock can delegate responsibility for the distribution of water within the irrigation networks (*i.e.*, canals) in designated areas to registered irrigation associations.¹⁰⁰ Article 23 links these irrigation associations with the traditional management of irrigation systems by allowing irrigation associations to delegate management and responsibility of water rights to a *mirab bashi* or *mirab* designated by the association.¹⁰¹

b. Permitting process for water usage

To better regulate water usage, the Water Law prohibits the use of water without a permit except in the following four circumstances:

- drinking water, livelihood, and other needs, provided the daily consumption does not exceed 5 cubic meters per household;
- navigational uses, provided no damage occurs to the banks and right-of-way area of the river and there is no adverse impact to the quality of water exceeding permissible norms;
- fire extinguishing; and
- existing water rights until the Water Law’s river basin permitting process is implemented.¹⁰²

Implementation of the Water Law’s permitting process is intended to gradually replace existing water rights.¹⁰³ As the law continues to be implemented, activity permits will be required to undertake specified activities related to water storage and other associated uses.¹⁰⁴ Usage licenses will be required for specified uses of water resources.¹⁰⁵ Under the Water Law, the following uses or activities will require approval of a permit or license prior to undertaking:

- surface or groundwater use for newly-established development projects;
- disposal of wastewater into water resources;
- disposal of drainage water into water resources;
- use of water for commercial or industrial purposes;
- use of natural springs with mineral contents or hot springs for commercial purposes;
- digging and installation of shallow and deep wells for commercial, agricultural, industrial, and urban water supply;

- construction of dams and other structures for impounding water when the storage capacity exceeds 10,000 cubic meters; and
- construction of structures that encroach banks, beds, courses, or protected rights-of-way of streams, wetlands, *karezes*, and springs.¹⁰⁶

Once a permit or license is issued, a river basin council may cancel or modify it if the water user, without justification, fails to utilize or over utilizes the amount of water that has been allocated to the user.¹⁰⁷ Additionally, a river basin council may cancel or modify a license or permit when adequate water is not available to support the use or national interests demand.¹⁰⁸

c. Criminal penalties for violators

Criminal penalties may be imposed against any person who commits any of the following acts:

- blocks, diverts, or destroys water resources;
- removes or destroys measurement devices and signs erected by the relevant authorities;
- re-routes the direction of the flow of water resources or otherwise interferes with water distribution without legal authority;
- encroaches into the right-of-way of public waters, river banks, streambeds, canals, ditches, springs, *karezes* and other sources of groundwater, swamps, and wetlands that are considered public water resources; or
- pollutes water beyond the permissible limit.¹⁰⁹

If convicted, the violator may be sentenced to up to two years' imprisonment and fined an amount equal to the damages resulting from the act.¹¹⁰

d. Dispute resolution procedures

In addition to criminal sanctions, the Water Law includes a comprehensive process for dispute resolution through non-criminal or civil mechanisms.¹¹¹ Article 34 envisions a multi-stage process of dispute resolution that is intended to resolve disputes over water use and irrigation networks in only 15 days, excluding the right to seek judicial review following the final administrative decision. This tight timeframe no doubt reflects the reality that crops and harvests are dependent on water supply and, thus, disputes relating to water supply and irrigation networks must be resolved promptly to be of any practical assistance and minimize potential harm to users and farmers.¹¹²

Resolution of disputes among water users relating to usage starts with the local water user association, which attempts to mediate the dispute with the assistance of the *mirab* or *mirab bashi*.¹¹³ If the users do not agree to resolve the dispute in two days, the matter is referred to the sub-basin council, which has three days to resolve the dispute.¹¹⁴ After three days, the dispute is referred to the river basin council, which has four days to resolve the dispute.¹¹⁵ If there is still no resolution, the matter is referred to the Ministry of Energy and Water, which has six days to resolve the dispute.¹¹⁶ A user who remains dissatisfied with the Ministry of Energy and Water's decision may challenge the ministry's decision by filing objections with the primary court within 30 days of the ministry's final decision.¹¹⁷ Consistent with most administrative review schemes, the Water Law does not anticipate any right to judicial review

of water use disputes without first exhausting the dispute resolution mechanisms available before the water user association, sub-basin council, river basin council, and Ministry of Energy and Water.¹¹⁸

Table 1: Process for resolution of disputes over water use



The Water Law establishes a similar process for resolving disputes between farmers over irrigation networks. When disputes over irrigation networks arise, they are first submitted to the local irrigation association, which has two days to resolve the dispute with the assistance of the *mirab* and *mirab bashi*.¹¹⁹ If the parties do not agree to resolve the dispute in two days, the matter is referred to the sub-basin council, which has three days to resolve the dispute.¹²⁰ After three days, the dispute is referred to the river basin council, which has four days to resolve the dispute.¹²¹ If there is still no resolution, the matter is referred to the Ministry of Agriculture, Irrigation, and Livestock, which has six days to resolve the dispute.¹²² A farmer who remains dissatisfied with the Ministry of Agriculture, Irrigation, and Livestock’s decision may challenge the decision by filing objections with the primary court within 30 days of the ministry’s final decision.¹²³ Once again, there is no opportunity for judicial review of disputes over irrigation networks without first exhausting these administrative procedures.¹²⁴

Table 2: Process for resolution of disputes over irrigation networks



Although the Water Law does not elaborate on the process for judicial review of disputes relating to water use or irrigation networks, it appears that the usual practice and rules governing formal judicial proceedings in Afghanistan’s primary and appellate courts apply. In other words, a case would first be filed in the responsible primary court. Each party would then have a right of intermediate appeal to the provincial appeals court, with the further right of final judicial review by Afghanistan’s Supreme Court.

Article 34’s multi-stage review process attempts to combine informal mediation or dispute resolution mechanisms with an administrative review mechanism that culminates in formal judicial review of the final agency decision. The “parties” to this process are not defined in the law but likely include individual farmers or landowners, as well as *mirabs* and water user or irrigation associations with adverse claims or positions on questions of water usage and access. The criteria that local associations, sub-basin councils, river basin councils, and ministry

officials should use to resolve these disputes are not identified apart from reference to the Water Law's general provisions and any permits that may be issued. Once the responsible ministry makes a final decision, a right to judicial review is provided but, once again, the criteria under which the ministry's decision will be reviewed are not stated.

In most administrative review schemes, judges are required to extend deference to the reasoned decisions of administrative agencies charged with implementing laws. This deference is intended to reflect the expertise of agencies operating within their spheres of responsibility. The Water Law does not specify whether any such deference should be extended in relation to the underlying decisions of the responsible ministries or local associations and river basin councils involved in the dispute resolution process. If not clarified, the Water Law could allow judges to write on a blank slate, assessing anew each party's position on the dispute without regard to the reasonableness of any prior decision or recommendation made by the responsible ministry. This prospect would undermine the effectiveness and efficiency of the entire dispute resolution mechanism. To give full effect and meaning to the intended dispute resolution mechanism, formal judicial review should be limited to assessing the reasonableness or lawfulness of the final administrative decision. This approach would have the added benefit of expediting the judicial review procedure by narrowing the scope of issues subject to review.

C. Islamic law

Any discussion of water rights under Afghan law also must consider the provisions of Islamic law. Article 3 of Afghanistan's Constitution provides that "[n]o law shall contravene the tenets and provisions of the holy religion of Islam in Afghanistan." Additionally, the Water Law provides that the rights of water users, including rights-of-way for water resources, shall be interpreted "in accordance with the principles of Islamic jurisprudence."¹²⁵

"The Qur'an recognizes the importance of water, alluding to its fundamental importance in *sura* 21:30, which states, '[w]e have made every living thing of water.'¹²⁶ Classical Islamic law treated water as being held in public trust because it was considered a community right and central to the ritual acts of worship and sustaining human life itself.¹²⁷ Private ownership of water rights was generally forbidden.¹²⁸ Private persons could use public water sources for irrigation so long as they did not infringe upon a third party or damage the community.¹²⁹

This approach is illustrated by a case involving a husband who diverted water from land owned by his first wife to irrigate the land of his second wife. The first wife complained about the diversion, noting that her land had traditionally been irrigated with the water. The husband responded by claiming that, because there was a surplus of water at the time, there was no harm in diverting some of the water to his second wife's land. The local council agreed, finding that, although the first wife's land had priority for irrigation, the husband could divert excess water so long as the supply to his first wife's land was sufficient.¹³⁰

"Do not withhold the superfluous water in order to withhold the superfluous grass."
Sahih Bukhari

The council's finding is consistent with the Islamic concept of beneficial use, which recognizes a limited or qualified right to ownership of water when an individual adds value by conserving or distributing water.¹³¹ Conversely, Islamic law prohibits a person from withholding or

misusing water by polluting or degrading it.¹³² In the case of a dispute, the Shari'a prescribes procedures for the determination of rights by a *mirab* or other local official, who has final authority in the matter.¹³³

D. Traditional customs and practices

As already noted, the Water Law anticipates that water rights will be interpreted in a manner consistent with the principles of Islamic law, as well as the “praiseworthy customs and traditions of the people.”¹³⁴ In modern Afghanistan, however, the “praiseworthy customs and traditions of the people” are not easily defined because they vary from region-to-region and village-to-village.

From observations made and interviews conducted during UNAMA Rule of Law's field study, control of water distribution in most communities remains largely in the hands of local *mirab bashis* or *mirabs* whose decisions are largely respected. An ancient manual, the *Taximot Hakobe Ab* by Abdul Rahman Jami,¹³⁵ is sometimes used to guide these local authorities in questions relating to water allocation, measurement, and administration of water rights. The manual, which was written in the 15th Century, is still used in the Western Region of Afghanistan. It contains formulas for the calculation of water flow, design of irrigation systems, and rules for water allocation within irrigation systems.¹³⁶



Photos: Srinivas Chokkakula

Taximot Hakobe Ab, by Abdul Rahman Jami, as kept in Herat Department of Agriculture, Irrigation and Livestock

The *Taximot Hakobe Ab* is not publicly available. One copy is held in the archive of the provincial Department of Agriculture, Irrigation and Livestock in Herat but not maintained on public display or otherwise accessible to the general public. Nevertheless, those familiar with the *Taximot Hakobe Ab* regard it as a highly persuasive, if not definitive, source of traditional water rights.¹³⁷ The lack of public access to the manual, however, renders it difficult to assess whether what some parties to disputes say is enshrined in the *Taximot Hakobe Ab* as a traditional practice is, in fact, tradition or even written in the actual text.

The difficulty in relying on customary law or traditional practices to resolve water disputes is that there is no single set of rules that can be codified and applied in a uniform manner.¹³⁸ Rather, the system operates more as a reconciliation process than an adjudicatory process.¹³⁹ This flexibility allows disputes to be resolved in a context specific manner that is sensitive to

local concerns.¹⁴⁰ But, as will be seen in the following section, that very flexibility renders traditional practices vulnerable to manipulation, particularly by influential persons.¹⁴¹

III. Nature of water disputes

Given the critical importance of water to the agricultural sector, and the environmental and structural constraints on access to water sources for agricultural uses, internal disputes over water rights frequently arise among land owners, farmers, and neighboring villages and provinces.¹⁴² The stakes involved in these disputes are high as many rural communities depend on reliable access to water sources to grow the crops and nourish the livestock on which their lives and livelihoods depend.¹⁴³

“Rights to agricultural land, particularly irrigated land, are jealously guarded against encroachment. This may occur on a small scale when a neighbor is plowing into an adjacent field or in disagreements over the placement (or replacement) of boundary markers or irrigation channels.”

*Barfield, Afghan Customary Law, p. 20
(citing Zadran 1978:309)*

Regrettably, some water disputes quickly escalate into violent confrontations. One commentator observed:

. . . it is not the legal questions concerning the land and water itself that cause the greatest problems. Rather it is the immediate responses that people make when they feel their perceived rights are being challenged that lead to trouble. Even minor disputes can quickly escalate into fistfights or worse when people are working their fields. One man may shoot another and ignite a bloodfeud or a person injured in a fight may seek arbitration and demand compensation for his wounds. In settling these consequent issues, who was right or wrong about the cause of the original fight is of little importance.¹⁴⁴

Disputes about water are not limited to individuals with competing claims; they sometimes spread to entire communities. One extreme example of this reportedly occurred in Kunar, in eastern Afghanistan, where two neighboring villages clashed over the diversion of water from a small mountain stream.¹⁴⁵ The clash spurred several murders, which in turn fueled a cycle of retaliatory killings. This cycle of violence ended only when one of the villages relocated its entire population to another valley. Fortunately, violence of this scale is not common, but it illustrates how dramatically disputes over water rights can affect not just individuals but entire communities.

Indeed, disputes relating to water rights also spread from province-to-province. Two recent examples illustrate this point. The first example is drawn from a dispute relating to the distribution of water from the Taloqan River, which crosses both Takhar and Kunduz Provinces. The second example relates to the distribution of water from the Panjshir River to the Kapisa and Parwan Provinces.

The Takhar-Kunduz province dispute required the intervention of a high-level delegation, which examined the agricultural needs of both provinces and, based on that analysis, recommended that water resources from the Toloqan River be apportioned 62.6% for Kunduz Province and 37.4% for Takhar Province. This recommendation was subsequently approved by presidential decree and is presently being monitored by representatives of the Ministry of Agriculture, Irrigation, and Livestock.¹⁴⁶ No further disputes have arisen.

The dispute between Kapisa and Parwan Provinces, on the other hand, has not yet been resolved. This dispute relates to interpretation of a decades-old agreement governing the use of canal from the Panjshir River to Parwan Province. Parwan Province claims that the agreement allows it to use the canal to supplement its water supply during dry seasons. Kapisa Province disagrees. To maintain an adequate water level in the river and preserve the supply of water to Kapisa Province, provincial officials in Kapisa have periodically cut off water flow through the canal to Parwan Province, including during dry seasons. The dispute has not yet been resolved, resulting in continued uncertainty for farmers in both provinces.

Disputes among individual water users are more prevalent. One of the main areas of dispute observed during UNAMA Rule of Law's field study was alleged misuse or "stealing" water from irrigation canals. Neighboring land owners accused others of impermissibly diverting water from irrigation canals or other sources by erecting private dams or otherwise changing the intended flow of water.¹⁴⁷ Another common dispute involved allegations of users drawing more water than allocated by, for instance, opening canal outlets longer than the *mirab*'s instructions, as well as digging additional or wider sub-canals, particularly on private property. Changes in the diameter of irrigation canals increase the flow of water and, thus, impact the distribution of water through the system. Disputes relating to tampering and diversion of waterways are particularly likely to arise during dry seasons when the water level is at its lowest, particularly for downstream users.

Changes in the types of crops grown on irrigated lands also can adversely impact surrounding water users. Certain crops such as rice require a significantly greater volume of water to grow than other crops such as wheat.¹⁴⁸ Additionally, the construction of private hydroelectric stations and drilling of shallow or deep wells—both of which reduce water levels—also can adversely impact other water users and, thus, give rise to disputes.¹⁴⁹ Downstream users are particularly impacted by pollution resulting from upstream users' discharge of sewage and other waste into waterways.¹⁵⁰

Communal responsibility for ordinary maintenance and repair work is another source of dispute. In some cases, disagreements arise among community members over the necessity of, responsibility for, and costs of maintaining or repairing irrigation systems.¹⁵¹ Lastly, there were isolated reports of persons "occupying" an irrigation canal and charging farmers for its use.¹⁵²

Regardless of the precise source or nature of the dispute, mechanisms must be provided to resolve them before they escalate into violence. Public confidence in formal and informal dispute mechanisms will only be restored when disputes over water rights are resolved in a

transparent and equitable manner. Failure to do so threatens the continued growth of one of Afghanistan's most vital economic sectors. The effectiveness of Afghanistan's existing legal frameworks in achieving this goal is addressed in the next section.

IV. Effectiveness of existing legal frameworks for resolving water disputes

As already noted, Afghanistan provides both formal and informal means for resolving disputes related to water rights. The Water Law anticipates a complex regulatory regime driven largely by local users. This formal mechanism is supplemented by traditional customs and practices coalesced around the *mirab*'s longstanding authority and respect in relation to water rights.

UNAMA Rule of Law's field study revealed that, in practice, the *mirab* remains the central figure in the resolution of water right disputes, notwithstanding the Water Law's comprehensive regulatory scheme.¹⁵³ The majority of persons surveyed responded that they relied exclusively or, at least, predominately on local *mirabs* to resolve disputes. Interviews with court officials confirmed that only one or two cases relating to disputes over water rights were filed in provincial courts. Moreover, these formal cases typically involved not technical legal issues relating to claimed water rights but, rather, legal remedies for the physical violence flowing from the underlying dispute.¹⁵⁴

There are several reasons for this divergence in the use of formal versus informal dispute resolution mechanisms. One explanation is that the complex administrative structure anticipated by the Water Law is not yet fully implemented. Another explanation is that, despite its comprehensiveness, there are still substantial gaps in the Water Law's scope, particularly given its incorporation of undefined customs and practices. Additionally, independent studies establish that the public continues to perceive—whether correctly or not—the judiciary as among the most corrupt institutions in Afghanistan. The combination of these three elements helps explain why parties to water disputes continue to turn to traditional mechanisms to resolve water disputes, despite the Water Law's seemingly comprehensive framework for dispute resolution.

A. The Water Law's administrative framework is not fully implemented

The UNAMA Rule of Law field study showed that the Water Law's integrated water resources management approach has not been fully implemented. The administrative structure for local participation through river basin councils, sub-basin councils, and water user and irrigation associations exists only in a few regions or provinces:

- River basin councils have only been established in the Kabul River basin in Kabul and for the Harirod-Murghan River basin. The three other river basins have no established council.
- Sub-basin councils also only exist in two (Kabul and Harirod-Murghan River basins) of the five river basins.

- Irrigation and water user associations are established in most provinces but, in most cases, the associations do not appear to be operating in practice.

Even when the basin and sub-basin councils are established, the Water Law's reliance on the geographic boundaries of river basin areas creates a dichotomy with existing political boundaries of Afghanistan's administrative regions and provinces. The geographic and political boundaries are not the same. As a result, even when fully implemented, a risk exists that the Water Law's anticipated administrative structure may not be seamlessly integrated into existing regional and provincial reporting channels.

Gaps in the administrative structure also mean that the Water Law's anticipated permitting system governing water usage likewise has not been implemented.¹⁵⁵ Countrywide, the UNAMA Rule of Law survey showed that no new water permits have been issued, registered, or modified by any river basin council since the Water Law was enacted in 2009. As a result, the planned gradual conversion of existing water rights to permitted rights is essentially moribund, with not a single conversion of existing water rights taking place. This delay in conversion of rights means that no transparent register of water rights exists. Unless and until a transparent register of water rights is developed, as the Water Law anticipated, disputes over water rights will continue to arise.

Additionally, UNAMA's survey revealed substantial confusion over the intended administrative structure. Some participants expressed dissatisfaction with the sheer number of agencies involved in the process of water resource distribution, management, development, and administration,¹⁵⁶ and the inefficiencies inherent in such a complex administrative regime.¹⁵⁷ As noted above, the Water Law assigns primary or supporting roles to no less than 11 separate ministries or agencies. Although overall coordination is intended to be provided by the Supreme Council of Land and Water, there is little tangible evidence to show that the Supreme Council is fulfilling this coordination role in a meaningful or, at least, visible way. Among other things, no central database of water resources has been developed, thereby limiting the ability of any planning agencies anticipated by the Water Law, including the High Council, in preparing any coherent management strategy.¹⁵⁸

B. Even when the Water Law's administrative framework is implemented, substantive gaps may remain

Although the Water Law anticipates a comprehensive regulatory system for managing water resources, even when fully implemented, its scope may not be as broad as first appears. Most significantly, the Water Law incorporates many of the "praiseworthy customs and traditions of the people."¹⁵⁹ As already seen, however, these customs and traditions are not defined in any transparent or readily-accessible manner. Consequently, the incorporation of these undefined customs and standards could, if not clarified, introduce substantial ambiguity and potential arbitrariness into the Water Law's interpretation and application.

The Water Law also creates a potential conflict with the Civil Code in relation to the allocation of irrigation water for agriculture. Under the Civil Code, distribution of irrigation water shall be done in a way that it is proportionate to the surface of land that needs to be irrigated.¹⁶⁰ The

Water Law, in contrast, gives priority to the use of water for “drinking” and “livelihood,” and does not provide any method for allocating the use of water for agriculture.¹⁶¹ Some balance among the different priority uses of water must have been intended as the Water Law drafters could not have anticipated that all water be allocated to drinking and livelihood to the exclusion of agriculture use. The Water Law, however, is silent as to how this balance should be achieved in a manner that is not only fair but conducive to economic growth. As already seen, Afghanistan’s praiseworthy customs and traditions do not help fill this critical gap.

The complexity of the Water Law’s multi-stage dispute resolution and administrative review scheme raises additional concerns. Although the Water Law contains a strict 15-day time-frame for resolution of disputes at the administrative level, final administrative decisions by the responsible ministries (Ministry of Energy and Water, or Ministry of Food, Agriculture, and Livestock) remain subject to judicial review. The time required to complete all three stages of judicial review (primary court, appeals court, and Supreme Court) will take substantially longer to complete than most farmers or landowners, who urgently require water to sustain crops, can afford to wait, particularly if no deference to the decisions of the responsible ministry is required.¹⁶² The crops of fortunate farmers or landowners will be fully harvested before the formal judicial proceedings anticipated by the Water Law are completed; in many cases, however, crops dependent on timely resolution of disputes over water rights are likely to be destroyed before a final judicial decision is delivered. Some form of interim judicial relief or preliminary order based on the party’s likelihood of success is required to prevent the potential nullification of rights that may result from prolonged administrative and judicial proceedings.

Other gaps relate to the sufficiency of remedies and technical ability of responsible officials, including judges, to assess responsibility for violations of water rights.¹⁶³ Water officials and judges lack the technical tools to accurately measure water levels and water use. Water meters or other technology to accurately measure water use are not widely available in Afghanistan; instead, local *mirabs* measure water levels by chalk marks placed on canal walls and, based on estimated changes in water levels, make “educated” guesses about water use. Thus, it is exceedingly difficult for claimants to prove—as a factual matter—who is ultimately responsible for decreases in water levels or flow or that one user’s use of water exceeds the agreed-upon allocation.

Additionally, criminal penalties alone provide no compensation to farmers or landowners whose crops are lost. Nor do court sanctions or fines.¹⁶⁴ Meaningful administrative or judicial relief must include compensation for the actual damages resulting from violations of water rights, including full compensation for losses incurred in the destruction of crops due to inability to exercise lawful water rights.¹⁶⁵ Only in this way will farmers or landowners who are wrongfully deprived of their water rights be in a position to plant new crops and continue to contribute to the agricultural sector’s growth.

C. Continued public distrust hinders formal dispute resolution mechanisms

No matter how comprehensive the regulatory scheme may be, public trust and confidence in government institutions, particularly the judicial sector as the final arbiter of water rights, is essential. Regrettably, corruption in the formal justice sector continues to be an obstacle to

resolving disputes over water rights.¹⁶⁶ Independent surveys have identified Afghan courts as among the country's most corrupt institutions.¹⁶⁷ Integrity Watch Afghanistan's *National Corruption Survey 2014* and Transparency International's *Global Corruption Barometer 2013*, for instance, both ranked the judiciary as the most corrupt Afghan government institution.¹⁶⁸

In addition, access to the formal justice system is uneven, particularly in commercial matters where competence is typically confined to large urban areas. "Distrust in receiving fair redress in court means that many business disputes are resolved by other means, such as tribal *jirgas* or informal mediation and arbitration."¹⁶⁹

The proposed Conciliation Law, which the Ministry of Justice's Legislative Department (*taqneen*) recently submitted to the Council of Ministers (essentially a presidential cabinet) for submission to the National Assembly, is intended to formalize these informal means of dispute resolution. Under the proposed law, decisions of traditional *jirgas* that are accepted by both sides to a dispute may then be recorded in the records of formal courts and, thus, given formal binding legal effect. As discussed in the next section, the widespread use of traditional dispute resolution mechanisms and the proposed merger of informal dispute resolution with the formal justice sector raises particular concerns for vulnerable groups such as women and children.

D. Traditional dispute resolution mechanisms are well regarded but carry their own concerns

Throughout Afghanistan's history, governance of the water sector generally was managed at the provincial and local levels.¹⁷⁰ The local *mirab* had the power to make key decisions concerning the maintenance of irrigation facilities and the distribution and usage of water.¹⁷¹ The *mirab* also provided the necessary bridge between farmers and responsible government officials.¹⁷²

Years of conflict, however, have damaged this traditional governance structure relating to water rights.¹⁷³ The Water Law intended to revitalize the traditional structure by gradually transitioning it to a modern integrated approach to water resource management. As already seen, local participation is one of the hallmarks of this modern integrated system but it is not yet fully operational.

Delays in implementation of the Water Law have perpetuated the predominant role *mirabs* traditionally have played in the resolution of water disputes. The UNAMA Rule of Law field study established general satisfaction with most *mirab*'s abilities to resolve disputes equitably.¹⁷⁴ One testament to this could be the very small number of cases submitted to the responsible ministries or filed in the formal courts relating to water rights—though, as already discussed, there may be other explanations for the small number of formal cases apart from satisfaction with the *mirabs*' decisions.

Yet, not everyone respects the decisions of *mirabs*. The UNAMA field study identified isolated instances of *mirabs* being beaten or threatened in relation to decisions they made relating to water allocation. Additionally, some respondents observed that complaints against persons perceived to be influential or powerful simply are never made because the assumption is that no one, including the *mirab*, will hold them accountable.

Mirabs are not immune from the usual sort of corruption that infiltrates the formal justice sector. While no direct evidence was found, the compensation system for *mirabs* is typically based on a share of crops harvested. This provides an incentive for *mirabs* to support the persons responsible for planting and harvesting the crops, not the persons seeking to challenge growers. Additionally, as poorly compensated as they are, *mirabs* are at least as vulnerable to bribes and other attempts to “buy” their favor as formal justice sector officials, including judges and prosecutors.

Lastly, concerns remain that resolution of disputes through traditional means will disfavor historically disenfranchised groups like women and children. Although women comprise approximately 32% of the agricultural workforce,¹⁷⁵ their ability to obtain equitable resolution of water disputes is sometimes difficult in a traditionally patriarchal society. The lack of transparency in relation to what constitutes the customs and traditions relevant to resolving disputes about water rights renders it impossible to accurately assess whether the *mirab*'s decision in any particular case was the product of an impartial application of established rules or undisclosed bias. This situation will be alleviated only with greater transparency surrounding the entire decision-making process.

V. Conclusion and recommendations

The government's priorities for national development correctly recognize the crucial role agriculture plays in Afghanistan's future economic growth and the well-being of its people. Water is the fuel that drives the agricultural sector.

Years of conflict have deteriorated irrigation systems. Repeated droughts and reduced precipitation have reduced surface water sources. Unregulated drilling of wells has significantly depleted ground water levels.

The permitting system envisioned by the Water Law was intended to promote a more coherent and coordinated system for regulating Afghanistan's limited water resources. Regrettably, that goal has not yet been fully realized and gaps in the existing regulatory system persist.

These gaps are the source of disputes among individuals and, sometimes, entire communities. Some of these disputes have resulted in physical violence and, in at least one case, unleashed a cycle of revenge killings that forced an entire community to relocate.

To reduce the number of future disputes over water rights and promote the continued growth of the agricultural sector, consideration should be given to the following recommendations:

- The Water Law's administrative structure should be fully implemented in all water basins by establishing the water basin councils, sub-councils, and user associations the law anticipated. At present, only a handful of regions and provinces have the complete administrative structure the Water Law anticipates.¹⁷⁶ As a result, the permitting process anticipated by the Water Law has not yet been fully implemented. Full implementation of the Water Law's permitting scheme is essential to achieve its goal of harnessing limited water resources and curbing practices such as the unregulated drilling of deep wells that have an adverse effect on water levels.

- The Supreme Council of Water Affairs Management should more fully utilize its authority to coordinate and streamline the management of water resources among the responsible ministries and departments. From information available to the public and from public perception, the Supreme Council does not appear to be coordinating water sector strategies at least not in any visible way.¹⁷⁷ Additionally, the multiplicity of agencies and ministries involved in water resource management invites confusion and calls out for greater cohesion in the division of responsibility over water resources, particularly irrigation water.¹⁷⁸ Consideration should be given to establishing one lead ministry charged with developing and implementing strategies ensuring that the irrigation needs of the agricultural sector continue to be met.
- The process for dispute resolution with the possibility of judicial review thereafter should likewise be streamlined so that administrative decisions may be implemented without interfering with crop growth or harvesting.¹⁷⁹ Temporary orders or forms of relief should be fashioned to ensure that crops are not lost due to delays in resolving water rights. Additionally, judges should extend appropriate deference to reasoned decisions of the responsible ministry or ministries, whose expertise in the management of water resources should be carefully considered in reaching any judicial decisions.
- To ensure adequate remedies for those whose water rights have been violated, administrative or judicial officials should award financial compensation for direct and consequential damages, including fair market value of any crops lost, resulting from the violation. Although the Water Law outlines criminal penalties for violations, it does not adequately develop the scope of civil remedies available to those whose rights to water are violated.¹⁸⁰
- To promote greater transparency, the traditional practices and customs relating to water rights, such as the *Taximot Hakobe Ab*, should be made publicly available in libraries or on the Internet, along with copies of formal and informal decisions made by administrative bodies, courts, and *mirabs*. Without public access to the reasoned bases for decisions, the informal system of justice remains vulnerable to manipulation and the fairness of proceedings cannot be meaningfully assessed.¹⁸¹

If accepted, implementation of these recommendations will require continued donor support in the form of technical expertise and infrastructure development. UNAMA is well positioned to assist the government in coordinating this donor support. It also will continue to provide the responsible government officials with the technical legal advice and guidance required to ensure that water disputes are resolved in an equitable and transparent manner.

ENDNOTES

- ¹ Food and Agriculture Organization of the United Nations, *Irrigation in Central Asia in Figures: AQUASTAT Survey-2012*, 2013, p. 87 (“FAO AQUASTAT Survey-2012”), available at <http://www.fao.org/docrep/018/i3289e/i3289e.pdf>.
- ² Ministry of Irrigation, Water Resources and Environment, *Strategic Policy Framework for the Water Sector*, May 2004, p. 2 (“2004 Strategic Policy Framework”), available at <http://www.cawater-info.net/afghanistan/pdf/aswf.pdf>.
- ³ Richard Ghiasy *et al.*, *Afghanistan's Private Sector: Status and Ways Forward*, October 2015, § 2.4.1 (Ghiasy, *Afghanistan's Private Sector*”), available at https://www.sipri.org/sites/default/files/2016-04/SIPRI_Afghanistans-Private-Sector_Report-2015.pdf.
- ⁴ FAO AQUASTAT Survey-2012, p. 87; Government of Afghanistan, *National Priority Program 1: National Water and Natural Resource Development*, Final Draft, p. 35 (“NPP 1”).
- ⁵ Ghiasy, *Afghanistan's Private Sector*, § 2.4.1; *see also* International Center for Agricultural Research in the Dry Areas, *Needs Assessment on Soil and Water in Afghanistan*, September 2002, p. 9 (“There is a strong relationship between the amount of precipitation, length of growing season and altitude.”) and p. 55 (“Since rainfall is scanty and highly variable over most of the country where topography and soils are suitable for agriculture, there are only a few areas where rain fed crops can provide a reliable basis for livelihoods.”) (“ICARDA Needs Assessment”), available at http://afghanag.ucdavis.edu/natural-resource-management/soil-topics/soil-manuals/Rep_Needs_Acess_Soil_Water_ICARDA.pdf.
- ⁶ FAO AQUASTAT Survey-2012, p. 95, Figure 3.
- ⁷ *Id.*, p. 103; ICARDA Needs Assessment, para. 18.
- ⁸ *See* FAO AQUASTAT Survey-2012, p. 103; Ghiasy, *Afghanistan's Private Sector*, § 2.4.1.
- ⁹ ICARDA Needs Assessment, p. 35.
- ¹⁰ *See* FAO AQUASTAT Survey-2012, p. 87.
- ¹¹ *See id.*
- ¹² NPP 1, p. 23.
- ¹³ 2004 Strategic Policy Framework, p. 2.
- ¹⁴ *See* FAO AQUASTAT Survey-2012, p. 87 (estimating that Afghanistan's rural population in 2011 was 77%, down from 80% in 1999); ICARDA Needs Assessment, para. 1 (estimating that 75% of Afghanistan's population resides in rural areas).
- ¹⁵ ICARDA Needs Assessment, para. 1.
- ¹⁶ FAO AQUASTAT Survey-2012, p. 87.
- ¹⁷ Ghiasy, *Afghanistan's Private Sector*, § 2.4.1.
- ¹⁸ FAO AQUASTAT Survey-2012, p. 87; *see also* NPP 1, p. 23 (estimating that licit agriculture accounts for 32% of the country's gross domestic product).
- ¹⁹ Agriculture, Value Added (% GDP), World Bank National Accounts Data, and OECD National Accounts Data Files, 2014, available at <http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>.
- ²⁰ Ghiasy, *Afghanistan's Private Sector*, § 2.4.1.
- ²¹ FAO AQUASTAT Survey-2012, p. 87 (“Decades of war have destroyed much of Afghanistan's irrigation and other water supply systems, which are vital for the agricultural economy. In recent years the situation has been complicated by the drought.”); NPP 1, p. 35.
- ²² NPP 1, p. 35; Ghiasy, *Afghanistan's Private Sector*, § 2.4.1.
- ²³ *See* ICARDA Needs Assessment, para. 9 (agreeing that water scarcity and poor infrastructure are the primary obstacles of economic growth in the agricultural sector).
- ²⁴ Vincent Thomas *et al.*, *Developing Transboundary Water Resources: What Perspectives for Cooperation between Afghanistan, Iran and Pakistan?*, May 2016, p. 5 (“Thomas, *Developing Transboundary Water Resources*”), available at <http://www.areas.org.af/Uploads/EditionPdfs/1607E%20Developing%20transboundary%20water%20resources.pdf>; Ghiasy, *Afghanistan's Private Sector*, § 2.4.1; *see also* ICARDA Needs Assessment, p. 9 (“There is a strong relationship between the amount of precipitation, length of growing season and altitude.”) and p. 55 (“Since rainfall is scanty and highly variable over most of the country where topography and soils are suitable for agriculture, there are only a few areas where rain fed crops can provide a reliable basis for livelihoods.”).
- ²⁵ FAO AQUASTAT Survey-2012, p. 85.
- ²⁶ Afghanistan National Development Strategy, Water Resource Management, Water Sector Strategy, February 2008, p. 1 (“2008 Water Sector Strategy”), available at <http://moec.gov.af/Content/files/Water%20Sector%20Strategy%20-%20English.pdf>.

- ²⁷ Ghiasy, *Afghanistan's Private Sector*, § 2.4.1; *see also* Food and Agriculture Organization and World Bank data (ranking Afghanistan as the 19th least rain-fed country in the world in 2014), *available at* <http://data.worldbank.org/indicator/AG.LND.PRCP.MM>.
- ²⁸ FAO AQUASTAT Survey-2012, p. 95, Figure 3.
- ²⁹ *Id.*
- ³⁰ *Id.* at p. 103; ICARDA Needs Assessment, para. 18.
- ³¹ FAO AQUASTAT Survey-2012, p. 103; ICARDA Needs Assessment, para. 18.
- ³² *Id.*
- ³³ FAO AQUASTAT Survey-2012, p. 103.
- ³⁴ 2008 Water Sector Strategy, pp. 24-25.
- ³⁵ ICARDA Needs Assessment, para. 18. Although beyond the scope of this report, the depletion of groundwater resources poses a substantial threat not only to irrigation water but also to the availability of drinking water, given that the “majority of the population uses groundwater as its prime, and often only, source of drinking water.” FAO AQUASTAT Survey-2012, p. 103.
- ³⁶ *See id.* at p. 103; Ghiasy, *Afghanistan's Private Sector*, § 2.4.1.
- ³⁷ *See* ICARDA Needs Assessment, p. 15; FAO AQUASTAT Survey-2012, p. 87 (noting that irrigation is essential for agricultural development in Afghanistan).
- ³⁸ ICARDA Needs Assessment, p. 18. The remaining 15% of agricultural production in Afghanistan is rainfed.
- ³⁹ *Id.*
- ⁴⁰ *Id.* at pp. 15, 18.
- ⁴¹ *Id.* at p. 18.
- ⁴² UNAMA ROL Field Observation.
- ⁴³ Water Law, published in the Ministry of Justice Official Gazette No. 980 on 26 April 2009, arts. 23(2) and 34(1) (“2009 Water Law”); ICARDA Needs Assessment, para. 11; 2008 Water Sector Strategy, p. 12.
- ⁴⁴ ICARDA Needs Assessment, p. 35; 2008 Water Sector Strategy, p. 12.
- ⁴⁵ ICARDA Needs Assessment, p. 52; 2008 Water Sector Strategy, p. 12.
- ⁴⁶ ICARDA Needs Assessment, p. 35.
- ⁴⁷ *Id.* at p. 15; Spate Irrigation Network, *Spate Irrigation in Afghanistan*, p. 1, *available at* http://www.spate-irrigation.org/wordpress/wp-content/uploads/OP10_SI_Afghanistan_SF.pdf.
- ⁴⁸ *See* 2004 Strategic Policy Framework, p. 2 (estimating that about 90% of irrigation is by traditional means and only 10% is by formal means such as large scale irrigation projects).
- ⁴⁹ *See* ICARDA Needs Assessment, pp. 15, 35; 2008 Water Sector Strategy, p. 12.
- ⁵⁰ *See* ICARDA Needs Assessment, para. 11; 2008 Water Sector Strategy, p. 12.
- ⁵¹ *See* ICARDA Needs Assessment, p. 35.
- ⁵² *See id.* at para. 11.
- ⁵³ *See id.* at p. 35.
- ⁵⁴ *See id.* at para. 9 and p. 35 (“the efficiency of the conveyance system has been reduced by as much as 80% of its original capacity”).
- ⁵⁵ FAO AQUASTAT Survey-2012, p. 94.
- ⁵⁶ NPP 1, p. 41.
- ⁵⁷ *Id.*
- ⁵⁸ *Id.*
- ⁵⁹ *See* The World Bank, *Water Brings Life to Farmlands in Kandahar Province*, 20 July 2016, *available at* <http://www.worldbank.org/en/news/feature/2016/07/20/water-brings-life-to-farmlands-in-kandahar-province>.
- ⁶⁰ The Kabul Times, *Kajaki Dam helps Afghanistan's economic growth*, 4 October 2016, *available at* <http://thekabultimes.gov.af/index.php/opinions/economic/12002-kajaki-dam-helps-afghanistan%E2%80%99s-economic-growth.html>.
- ⁶¹ 2008 Water Sector Strategy, p. 24.
- ⁶² *Id.*
- ⁶³ FAO AQUASTAT Survey-2012, pp. 93-94, Table 4 and Figure 1; *see also* ICARDA Needs Assessment, p. 14 (estimating that 99% of total water pumped was used for irrigation).
- ⁶⁴ FAO AQUASTAT Survey-2012, p. 87; *see also* NPP 1, p. 23 (estimating that licit agriculture accounts for 32% of the country's gross domestic product).
- ⁶⁵ 2004 Strategic Policy Framework, p. 2; *see also* NPP 1, p. 23.
- ⁶⁶ 2008 Water Section Strategy, p. 3.
- ⁶⁷ NPP 1, p. 41.
- ⁶⁸ Afghan Constitution, art. 14.
- ⁶⁹ *Id.*
- ⁷⁰ Civil Code, art. 2347.

- ⁷¹ *Id.* at arts. 2346-2347.
- ⁷² *Id.* at art. 2349.
- ⁷³ *Id.* at art. 2353.
- ⁷⁴ *Id.* at art. 2348.
- ⁷⁵ *Id.* at art. 2352.
- ⁷⁶ *Id.* at art. 2350.
- ⁷⁷ *Id.* at art. 2351.
- ⁷⁸ 2009 Water Law, art. 1.
- ⁷⁹ *Id.*
- ⁸⁰ *Id.* at arts. 2 and 8(1).
- ⁸¹ *Id.* at art. 6.
- ⁸² *Id.*
- ⁸³ *Id.* at art. 7.
- ⁸⁴ *Id.*
- ⁸⁵ *Id.* at art. 28.
- ⁸⁶ *Id.* at arts. 2 and 8.
- ⁸⁷ *Id.* at art. 8(2)-(10) and arts. 10-11.
- ⁸⁸ *Id.* at art. 9.
- ⁸⁹ Environmental and Social Management Framework for Afghanistan On-Farm Water Management Project, November 2010, p. 10 (“ESMFA On-Farm Management Project”), available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/11/16/000334955_20101116014820/Rendered/PDF/E25860EA0P12031Framework1appraisal.pdf; see also 2009 Water Law, arts. 4 and 12 (adopting integrated water resource management and development approach).
- ⁹⁰ ESMFA On-Farm Management Project, p. 10.
- ⁹¹ *Id.* at pp. 10-11.
- ⁹² 2009 Water Law, arts. 12-14.
- ⁹³ *Id.* at art. 14.
- ⁹⁴ *Id.* at art. 17.
- ⁹⁵ *Id.* at art. 17(2).
- ⁹⁶ *Id.* at arts. 14(8)-(10) and 17(2).
- ⁹⁷ ESMFA On-Farm Management Project, p. 11.
- ⁹⁸ 2009 Water Law, art. 3(8).
- ⁹⁹ ESMFA On-Farm Management Project, p. 11.
- ¹⁰⁰ *Id.*
- ¹⁰¹ *Id.*
- ¹⁰² 2009 Water Law, art. 19.
- ¹⁰³ *Id.* at arts. 19(4) and 20.
- ¹⁰⁴ *Id.* at arts. 3(5) and 21(2).
- ¹⁰⁵ *Id.* at arts. 3(6) and 21(2).
- ¹⁰⁶ *Id.* at art. 21.
- ¹⁰⁷ *Id.* at art. 15(1).
- ¹⁰⁸ *Id.* at art. 15(2)-(3).
- ¹⁰⁹ *Id.* at art. 35(1)-(5).
- ¹¹⁰ *Id.* at art. 35.
- ¹¹¹ *Id.* at art. 34.
- ¹¹² See Vincent Thomas, *Water Rights and Conflict Resolution Processes in Afghanistan: The Case of the Sar-i-Pul Sub-Basin*, December 2013, p. 115 (“Thomas, *Water Rights and Conflict Resolution Processes*”), available at <http://www.areu.org.af/Uploads/EditionPdfs/Water%20and%20Conflict.pdf>.
- ¹¹³ 2009 Water Law, Art. 34(1).
- ¹¹⁴ *Id.* at arts. 2009 Water Law, Art. 34(2).
- ¹¹⁵ *Id.* at arts. 16 and 34(3). In regions where no river basin or sub-basin council is established, the matter is referred to the relevant river basin authority for disputes over water use or water management department for disputes over irrigation networks. *Id.* at art. 34(7).
- ¹¹⁶ *Id.* at arts. 16 and 34(4).
- ¹¹⁷ *Id.* at arts. 16 and 34(6).
- ¹¹⁸ See *id.* at art. 16.
- ¹¹⁹ *Id.* at art. 34(5).
- ¹²⁰ *Id.*
- ¹²¹ *Id.* at arts. 16 and 34(5).
- ¹²² *Id.*

- ¹²³ *Id.* at arts. 16 and 34(6).
- ¹²⁴ *Id.* at art. 16.
- ¹²⁵ *Id.* at arts. 1 and 8(8).
- ¹²⁶ Hamid Khan, *Practitioner's Guide to Islamic Law*, International Network to Promote the Rule of Law, July 2013, p. 87 (“Kahn, *Practitioner's Guide to Islamic Law*”), available at http://inprol.org/sites/default/files/publications/2013/islamic_law_guide-july_2013_final_0.pdf.
- ¹²⁷ *Id.* at p. 88 (citing Melanne Andromedea Civic, *A Comparative Analysis of the Israeli and Arab Water Law Traditions and Insights for Modern Water Sharing Agreements*, *Denver Journal of International Law and Policy* 26, 1998, p. 439).
- ¹²⁸ *Id.*
- ¹²⁹ *Id.*
- ¹³⁰ Thomas Barfield, *Afghan Customary Law and Its Relationship to Formal Judicial Institutions*, United States Institute for Peace, June 2003, p. 20 (“Barfield, *Afghan Customary Law*”), available at <http://www.usip.org/sites/default/files/file/barfield2.pdf>.
- ¹³¹ Khan, *Practitioner's Guide to Islamic Law*, p. 88 (citing Chibli Mallat, *The Quest for Water Use Principles: Reflections on Shari'a and Custom in the Middle East*, 1995, pp. 127, 129-130).
- ¹³² *Id.*
- ¹³³ *Id.*
- ¹³⁴ 2009 Water Law, art. 1.
- ¹³⁵ Treatise of Maulana Abdul Rehman Jami (1414–1492) providing guidance for irrigation water distribution and water allocation in the Herat Province (“*Taximot Hakobe Ab*” literally translates into “distribution of water”).
- ¹³⁶ *Id.*
- ¹³⁷ Afghanistan Research and Evaluation Unit, *Interrogating Irrigation Inequities, Canal Irrigation Systems in Injil District, Herat*, 2009, p. 20 (“AREU, 2009 Herat Irrigation Survey”), available at <http://www.areu.org.af/Uploads/EditionPdfs/914E-Irrigation%20Inequities-CS-print.pdf.pdf>.
- ¹³⁸ Barfield, *Afghan Customary Law*, p. 42.
- ¹³⁹ *Id.*
- ¹⁴⁰ *Id.*
- ¹⁴¹ *Id.*
- ¹⁴² External cross-boundary disputes between Afghanistan and neighboring countries over water rights also arise but are beyond the scope of this report. For a recent study of the nature of some of these external, cross-boundary disputes see Thomas, *Developing Transboundary Water Resources*.
- ¹⁴³ See FAO AQUASTAT Survey-2012, p. 87.
- ¹⁴⁴ Barfield, *Afghan Customary Law*, p. 20 (citing Zadran 1978:309).
- ¹⁴⁵ Field Data collected from Hesarshahi Returnee Camp, Nangarhar.
- ¹⁴⁶ Presidential Decree No. 1405, 16 May 2009.
- ¹⁴⁷ UNAMA Rule of Law field reports from multiple provinces.
- ¹⁴⁸ See FAO, *Irrigation Water Management: Irrigation Water Needs*, 1986, chapter 2, table 3, available at <http://www.fao.org/docrep/s2022e/s2022e00.htm>.
- ¹⁴⁹ UNAMA Rule of Law field reports from Nijrab District, Kapisa Province.
- ¹⁵⁰ UNAMA Rule of Law field reports from multiple provinces.
- ¹⁵¹ *Id.*
- ¹⁵² UNAMA Rule of Law field report from Baghlan Province.
- ¹⁵³ Other commentators agree with this assessment. See ICARDA Needs Assessment, p. 16 (observing “in practice water is distributed according to the local tradition and agreements between farmers, *mirab*, and the government. Each village has at least one water master (*mirab*) who delegates his authority to sub-water masters responsible for the allocation of water to different fields of the scheme.”); Ghiasy, *Afghanistan's Private Sector*, § 2.6, n. 130 (“In rural areas, property, land and irrigation rights are common sources of dispute, resolved by jirga or traditional arbitration.”)
- ¹⁵⁴ See Barfield, *Afghan Customary Law*, p. 20.
- ¹⁵⁵ See 2009 Water Law, Art. 14(5).
- ¹⁵⁶ UNAMA Rule of Law interview with Nangarhar River Sub-Basin Council.
- ¹⁵⁷ Daily Outlook Afghanistan, *Afghanistan Water Sources Use by Neighboring Countries*, 17 September 2015, available at http://outlookafghanistan.net/national_detail.php?post_id=13110.
- ¹⁵⁸ Thomas, *Water Rights and Conflict Resolution Processes*, p. 115.
- ¹⁵⁹ 2009 Water Law, arts. 1 and 6.
- ¹⁶⁰ Civil Code, art. 1911.
- ¹⁶¹ 2009 Water Law, Art. 6.
- ¹⁶² Thomas, *Water Rights and Conflict Resolution Processes*, p. 115.
- ¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *See id.*

¹⁶⁶ Ghiasy, *Afghanistan's Private Sector*, § 2.6.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at § 2.6 n. 129 (citing both studies).

¹⁶⁹ *Id.* at § 2.6.

¹⁷⁰ 2008 Water Sector Strategy, p. 12.

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ *See also* AREU, 2009 Herat Irrigation Survey, pp. 28-29.

¹⁷⁵ *See* FAO AQUASTAT Survey-2012, p. 87.

¹⁷⁶ Section V(A), above.

¹⁷⁷ *Id.*

¹⁷⁸ Section III(B), above.

¹⁷⁹ *See* Section V(B), above.

¹⁸⁰ Section III(B)(2)(c)-(d), above.

¹⁸¹ Section III(D), above.