5

The need for governance in the water sector

"We are nowhere near on pace to achieve that Goal [of basic sanitation] . . . and the biggest culprit: a lack of political will."
—*United Nations Secretary-General Ban Ki-moon*

"Water flows in your streams by the grace of God.
I applaud your elbow grease and toil."
—*A poem of Maulana Jalalludin Balkhi Rumi*

CHAPTER 5

The need for governance in the water sector

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The water shortage in Afghanistan is primarily driven by inefficient services rather than insufficient resources

The water sector in Afghanistan has suffered from inefficiencies associated with political and socio-economic disruption. The new Water Law and Water Sector Strategy reflect modern concepts of integrated water resources management. However, numerous problems remain, including the dislocation between an ambitious vision and shortcomings in infrastructure, institutions, management capacity,regulations and enforcement, and information. Progress is hindered because of the lack of adequate, predictable and sustained investment and the absence of mechanisms and processes to foster aid effectiveness. The challenge is to ensure that the relatively small share of development aid earmarked for the water sector is used efficiently in pursuit of goals that are sustainable and that help advance human development.

The water shortage in Afghanistan is primarily driven by inefficient services rather than insufficient resources, particularly with respect to drinking water and sanitation. How individuals, communities and institutions choose to govern their water resources has a profound impact on people's livelihoods and human development potential, as well as on environmental sustainability. Thus, the water crisis in Afghanistan is mainly a governance issue.

This chapter explores the state of water reform and the challenges facing reformin Afghanistan. It offers insights into the overarching concept of integrated water resources management (IWRM), which guides the recently adopted Water Law and makes decentralization and the participation of stakeholders in water resources management a priority. It shows that transforming IWRM into a practical reality is a difficult process, which is not yet fully supported in river basins by stakeholders. Another barrier is a general lack of capacity. This barrier will need to be overcome to move Afghanistan towards a more water secure future. Moreover, improvement in the water sector will not be possible, at least in the short to medium term, without international aid. The water sector remains severely underfunded. Greater commitment is critical, but so is dedication to ensuring that aid is effective and in line with the five principles of the Paris Declaration on Aid Effectiveness.

Water Governance and Human Development

Water governance refers to the range of political, socio-economic and administrative systems designed to develop, manage and distribute water resources. It is supported by

Governance requires open communication and strong cooperation both horizontally across sectors and between urban and rural areas and vertically from the local level to the international level

the mechanisms, processes and institutions through which all stakeholders, including interest groups and all residents, articulate priorities, exercise legal rights, meet obligations and mediate differences. Governance systems determine who obtains what, when, where and how; they arbitrate the right to water and the related services and benefits.

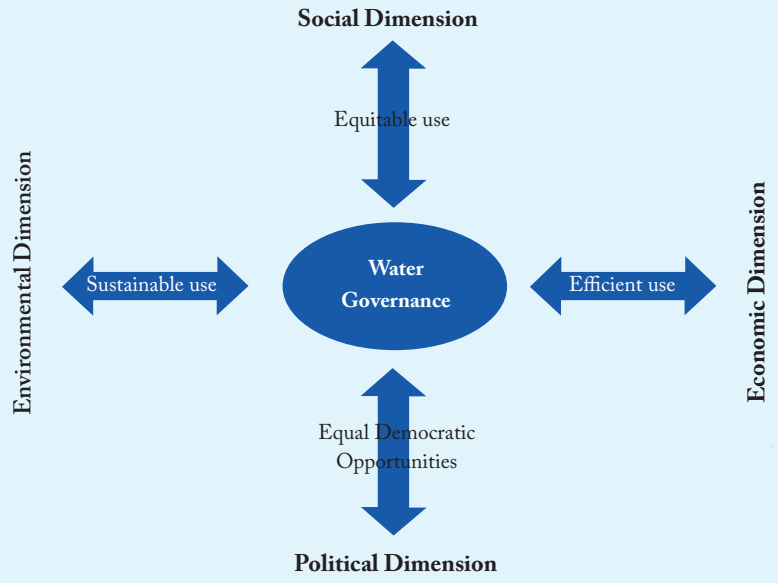
Thus, governance is centred on making choices, decisions and trade-offs. Water sector governance is complex and requires the representation of various decision-making interests. The actors may be local or central governments, sectoral agencies, river basin authorities, representatives of indigenous peoples, consumer bodies, private companies and others. Governance is therefore not limited to government, but includes the private sector and civil society.

Governance requires open communication and strong cooperation both horizontally across sectors and between urban and rural areas and vertically from the local level to the international level. This cooperation is facilitated by an appropriate legislative and regulatory framework. Decisions about water are anchored in governance systems that span three areas: government, civil society and the private sector. Facilitating dynamic interactions among all three is critical for developed and developing countries alike.

Establishing good water governance depends on pillars of human development. This is clear from the four dimensions of water governance, as follows (see figure 1):

- The social dimension revolves around a focus on the equitable use of water resources and thus represents one of the pillars of human development. Equity in water use, particularly with respect to irrigation, is problematic in Afghanistan (see chapter 4).
- The economic dimension involves the efficient use of water resources and the role of water in overall economic growth. Water use is inefficient in the urban and rural areas of Afghanistan, particularly with respect to irrigation. Improving water distribution and management would also improve efficiency.
- The political dimension centres on empowering stakeholders and citizens by assigning them the equal opportunity to influence the political process and monitor outcomes. This dimension represents the heart of human development because it involves providing all users with the chance to manage water and enjoy the benefits of water. Thus, the water sector reform in Afghanistan emphasizes the decentralization of water resources management with the aim of placing decision-making with water users.
- The environmental dimension revolves around ensuring that water governance allows for the enhanced and sustainable use of water resources, while preserving the integrity of ecosystems.

Figure 1 **The four dimensions of water governance are linked with human development concerns such as equity and equal democratic opportunities**



Source : Adapted from Tropp (2005).

The Water Sector Strategy

During the 1970s, three principal line agencies undertook the development and management of water resources, as follows:

- The Ministry of Energy and Water (MEW), responsible for irrigation and water power
- The Central Authority for Housing and Town Planning, responsible for urban water supply and sanitation
- The Rural Development Department, responsible for rural water supply and small-scale irrigation systems

From the 1980s to 2001, the sectoral management through line agencies collapsed because of war and civil unrest. During this period, non-governmental organizations (NGOs) and United Nations agencies provided limited support, primarily in rural communities. In 2002, an international conference in Kabul, known as the Kabul Understanding, laid the foundation for the development of the water sector in Afghanistan, which, beginning in 2004, was guided by the Strategic Policy Framework for the Water Sector.[1] This framework described the way forward and defined the specific policies, laws, regulations and procedures to be formulated, as follows:

- Revision of the Water Law of 1991
- A water resources management policy and related regulations
- The institutional structure for water resources management
- An irrigation policy and related regulations
- Regulations for water user associations (WUAs)
- National urban and rural water supply and sanitation policies and institutional development
- A groundwater policy
- A hydropower development policy
- An environment law

It was realized that, without substantial improvement in the management of water resources, including reform and the building of technical and management capacity at the local and national levels, the country would be unable to reach the targets in water and sanitation that are related to the Millennium Development Goals. To address this gap, the Afghanistan National Development Strategy (ANDS), within the pillar of social and economic development, includes a strategy for the water sector.[2] Water also features prominently in other sectoral strategies such as in agriculture, energy, the environment, rural development and urban development. This highlights the importance of adopting water resources management as an integrating approach.

Water sector reform is aimed at tackling the challenges highlighted in the Water Sector Strategy, as follows:[3]

- A lack of the institutional, human and financial resources necessary to deliver water services properly to the population
- A lack of mechanisms to regulate water use for irrigation, domestic supply, sanitation and hydropower generation
- A lack of integrated water sector governance
- A lack of reliable hydrological and metrological data and data on water quality
- Inadequate infrastructure and poor coordination among water sector projects

The Water Sector Strategy: vision and goals

The Water Sector Strategy consolidates priority policy issues, as well as recommendations for the sector. Covering a period of five years, it aims to facilitate the management of the nation's water resources so as

The Water Sector Strategy outlines no specific objective in sanitation

to reduce poverty, increase sustainable economic and social development, improve the quality of the lives of Afghans and ensure an adequate supply of water now and in the future.[4] An associated goal of the strategy is to improve the livelihoods of Afghans through the following:[5]

- Improved access to safe drinking water
- Enhanced household food security
- Protection from the negative effects of water shocks, drought and floods
- Sustainable development and the proper management of water resources
- Effective water user participation
- Poverty reduction and private sector development
- Effective services for efficient water use in all sectors so as to facilitate economic growth and social development

The Water Sector Strategy details specific objectives, which are identified as short (2007–10), medium (2007–13) and long term (2023 and beyond), as follows:

- The reform and development of legal and governance structures at the subnational and national levels, including the division of responsibilities among government agencies, the development of policies and regulations and the establishment of new water resources management and capacity-building institutions
- The development of sustainable water resources management policies and structures through the progressive implementation of IWRM
- The rehabilitation of existing water infrastructure and the expansion and construction of new structures in accordance with the National Water Resources Development Plan, including dams, canals, water supply networks, flood protection structures and wells for drinking water
- Capacity-building for information collection and analysis through the rehabilitation of hydro-meteorological and geo-morphological networks

The Water Sector Strategy outlines no specific objective in sanitation. It proposes a few benchmarks, but lacks a comprehensive situation analysis, established goals, a vision and a strategy to address the sanitation crisis in the country.

Progress and achievements: overly ambitious targets and inadequate commitment

The targets of the Water Sector Strategy represent a framework for accountability and the commitment of water sector agencies to collaborate to reach sector wide objectives. Most of these targets have not been achieved and are unlikely to be achieved on time (table 1). It thus appears that the targets are too optimistic and are based on faulty analysis and that the related efforts and investments are

Table 1 **ANDS water targets are not being achieved**

Target	Progress
Water resources management: Provide 30 percent of irrigation water from large water works by establishing river basin organizations (for example, river basin councils, sub-basin councils and related agencies) in Balkh, Kunduz and the western region by the end of 2010.	Not achieved. No river basin agency or river basin council has been established. WUAs have been established, but only informally;they lack legal status.
Urban development: In conformity with the Millennium Development Goals, greater investment in water supply and sanitation will ensure that 50 percent of households in Kabul and 30 percent of households in other major urban areas will have access to piped water and improved sanitation by the end of 2010.	Herat (85%), Kunduz (50%) and Mazar-i-Sharif (70%) have met the target. Kabul, Kandahar and Nangarhar have not.
Rural development: By the end of 2010, access to safe drinking water will be extended to 90 percent of villages, and access to sanitation to 50 percent of villages.	Current rural access to safe drinking water sources is 20 percent (see chapter 3). The current rate of progress of 1 percent per year means that the target will not be reached within the next few decades.

Sources: Government of Afghanistan (2008), MRRD and CSO (2009), data of the Ministry of Economy.

falling short. For example, ensuring by 2013 that 90 percent of the population would have access to safe drinking water is most definitely an overly ambitious target. Indeed, at the current rate of progress, the Millennium Development Goals for Afghanistan will only be achieved in 2042, more than two decades after the 2020 objective. The slow pace is evidence of a lack of commitment, particularly among the international community, to ensuring the delivery of basic services in Afghanistan.

Most targets have not been achieved and are unlikely to be achieved on time. It appears that the targets are too optimistic and are based on faulty analysis

IWRM: The Key Guidance Principle for Water Sector Reform

IWRM is a key concept for the planning and development of water resources and is central to the Water Law, which the National Assembly passed in 2009. Today, the Government of Afghanistan has adopted IWRM to implement the vision statement for the water sector. The main components of the IWRM concept are discussed hereafter.

The definition of IWRM

The Global Water Partnership provides a definition of IWRM that is widely quoted. According to this definition, "IWRM is a process which promotes the coordinated development and management of water, land, and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems."[6] There is however, no unique definition of IWRM.

Known as the Dublin Principles, guidelines on water resources management were drafted and adopted at the International Conference on Water and the Environment, in Dublin in January 1992, a prelude to the United Nations Conference on Environment and Development, in Rio de Janeiro in June of the same year.[7] The guidelines are based on an understanding of water as a finite, vulnerable resource essential to sustain life (see box 1).

Box 1 The Dublin principles

1. Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.
2. Water development and management should be based on a participatory approach involving users, planners and policy makers at all levels.
3. Women play a central part in the provision, management and safeguarding of water.
4. Water has an economic value in all its competing uses and should be recognized as an economic good.

Source: WWAP (2003).

The river basin approach, decentralization and stakeholder participation

IWRM rarely involves a single concept, and it is often associated with water governance principles. In the case of Afghanistan, IWRM is most often linked with two other components, namely, stakeholder participation and decentralization through a focus on river basins.

River basin management and decentralization: changing boundaries from administrative to hydrological

IWRM promotes a shift from administration to resource-based management. In the river basin approach, natural river boundaries are used to define the units for the management of water resources and the related institutional structures.

Decentralization is centred on ensuring that decision-making in water resources management occurs within a locally specific context

Decentralization is centred on ensuring that decision-making in water resources management occurs within a locally specific context. This is particularly relevant in a country such as Afghanistan, which contains five river basins and 34 sub-river basins, all of which are characterized by different profiles with respect to water availability, water use, land use and population density (see chapter 2). Management regulations, including water rights and water sharing practices, therefore vary significantly from one basin to another (see chapter 4), which also means that the potential for development differs.

Indeed, management and governance structures often depend on the level of development of a river basin (table 2). Initially, if water resources are abundant and if the various water uses do not conflict, the priority is usually to increase access to water supply services (the development stage). The utilization stage usually begins after the supply of water has been developed and is in use. This phase is often characterized by sharply increasing consumption as improved supply meets growing demand.

If demand rises and water resources become scarce relative to demand, reallocation begins. During this phase, excess resources remain largely unavailable. This means that providing more water for one user requires the reallocation of resources from another user. If the rising demand can no longer be met by simply creating more supply, a river basin is said to be closing. As opportunities to expand water supply decrease, the competition over current supply escalates, creating the need for improved governance. Governance has traditionally not received as much attention as technical issues.

The challenge for management institutions is to transition successfully from the requirements of the utilization stage to the requirements of the reallocation stage, during which allocation is necessary. However, the increased analysis and coordination across users and uses needed during the reallocation stage have major cost implications and are only justified if the natural ability of the system to satisfy the range of uses is exceeded.

The IWRM model has typically been developed and applied within the context of river basins that are closing. In Afghanistan, the adoption of the model, in tandem with a river basin approach, will have different characteristics and unique institutional requirements in each of the five river basins. Based on approximate flows already allocated (see chapter 2), the Panj-Amu and the Kabul river basins may be in the development stage. The Harirod-Murghab and Helmand river basins may be in the utilization stage, while the Northern basin, which is closed, typically fits the characteristics of the reallocation stage.

Table 2 **The development of river basins in Afghanistan**

	Stage 1: development	Stage 2: utilization	Stage 3: reallocation
Allocated flow, %	Low 0 - 40	Medium 40 - 70	High 70 - 100
Dominant activity	Construction: supply and storage infrastructure	Managing supply	Managing demand
Value of water	Low	Increasing	High
Groundwater	Development	Conjunctive use	Regulation
Conflicts	Few	Within the subsector	Cross-sectoral
Typical institutional tasks	Construction: planning and implementation	Operation, maintenance, expansion and rehabilitation	Intersectoral planning
Based by allocated flow	Panj-Amu Kabul Indus	Harirod-Murghab Helmand	Northern

Source: Adapted from Molden (2005).

The adoption of a river basin management approach and the decentralization of decision-making are necessary in Afghanistan given the differences across river basins. This also means that institutional development and capacity-building will vary across the basins. Prioritizing the implementation of IWRM in river basins in or close to the reallocation stage would be logical;however, over the last five years, the Panj-Amu River Basin Programme has received the most attention. The limitations of IWRM in this pilot case site are discussed in the section later.

Participation through multistakeholder platforms

Multistakeholder platforms such as river basin agencies and river basin councils facilitate inclusive participation in water resources management in river basins. Participation is often promoted alongside the notion that the governance of water resources and services is effective only if decision-making involves all stakeholders, including civil society. Participatory water governance models are usually adopted in response to poorly performing centralized state-managed systems, while water management policies are shaped by a trend towards less direct government involvement, but greater local participation in governance, management and financing.[8] In Afghanistan, this does not apply, however, because there has never been a strong centralized government operating state-managed systems, although the government did wield significant influence over local water management practices during the 1970s (see chapter 4). The influence of government has been practically nonexistent since then.

Decentralization poses important challenges, chief of which is the issue of how decentralization might lead to substantial improvement in local water governance. Participatory processes must allow local water users to control decision-making, while ensuring that key groups are not excluded. Typically, one of three generic models for water management through institutions is dominant in river basins, as follows:

- The hydrological model, whereby river basin organizations, cutting across administrative boundaries, take overall charge of water resources management
- The administrative model, whereby water management is the responsibility of organizations with interests unrelated to hydrological boundaries
- A model that implements coordination and facilitating mechanisms through existing administrative organizations with the aim of integrating and aligning planning and management objectives and activities[9]

The hydrological model, which is currently being piloted in the Panj-Amu river basin, should be appropriate for dealing with the upstream-downstream issues that administrative models usually fail to address. However, hydrological organizations typically require important investments of time and effort, but have had only limited demonstrable success world wide.[10] Experience also shows that river basin organizations often lack significant authority and usually reach only solutions that are based on the lowest common denominator.[11]

Coordinating mechanisms have the advantage of working well with and building on existing institutions rather than requiring major institutional change. Nonetheless, institutions in Afghanistan, including the mirab system, are not performing as well as they used to, which means that the challenge of coordination is greater than it might be in other contexts.[12]

In principle, multi-stakeholder platforms can ensure the participation of various interests that would normally have less chance to be heard. However, experience shows that strong stakeholders who prefer to maintain the status quo may undermine coordinating mechanisms, while existing institutions may not feel comfortable with the resulting decisions and will thus be reluctant to implement them.[13]

Participatory processes must allow local water users to control decision-making, while ensuring that key groups are not excluded

The Water Law

Passed in 2009, the new Water Law is based on article 9 of the Constitution of Afghanistan. It focuses on the reform of the water sector through extensive regulatory and institutional reorganization to provide the legal framework for implementing IWRM. It includes provisions aimed at the following:

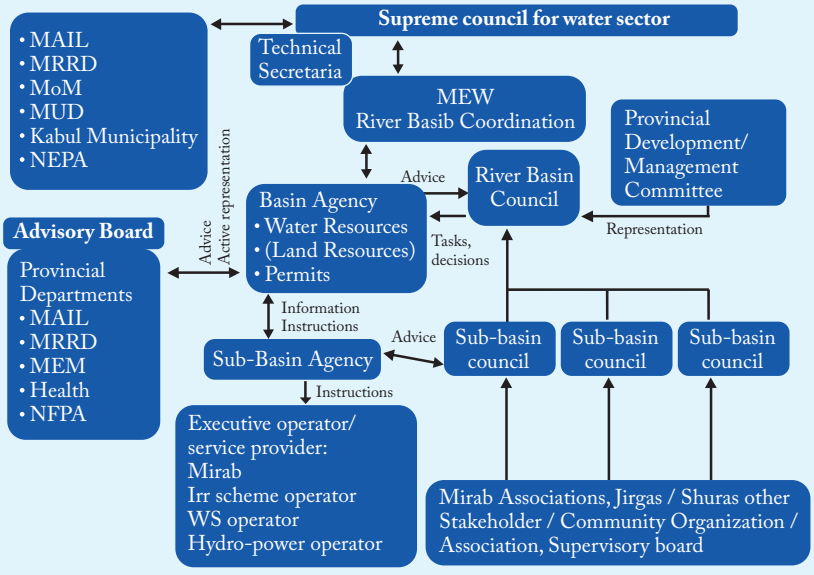
- Establishing an institutional structure for the implementation of IWRM
- Developing a system of water use permits and infrastructure licensing to formalize water rights and the diversion of surface water and groundwater for all uses except domestic uses
- A system of water pricing to recover the cost of water infrastructure, services and maintenance such as drinking water supply, treatment and operations
- Environmental protection

The Afghanistan Water Sector Strategy and Water Law reflect the hydrological model, which functions at three levels:

- The legal and policy functions of ministries
- The organizational functions of river basin management
- The operational functions of operators (for example, the outsourcing of operations and monitoring) and service providers

The organizational structure is illustrated in figure 2. The main agencies identified in figure 2 are described hereafter.

Figure 2 **The organizational structure for implementing IWRM in Afghanistan**



Note: MAIL = Ministry of Agriculture, Irrigation and Livestock. MM = Ministry of Mines. MRRD = Ministry of Rural Rehabilitation and Development. MUD = Ministry of Urban Development. NEPA = National Environmental Protection Agency.
Source: PARBP Inception Report (2010).

The Supreme Council for Water Affairs Management

Established in 2005 and chaired by the vice president of Afghanistan, the Supreme Council for Water Affairs Management is responsible for the following:

- Coordinating the activities of all governmental agencies involved in the water sector and monitoring the implementation of the Water Sector Strategy
- Recommending any newly drafted legislation and regulations for approval
- Monitoring the implementation of the relevant development plans by individual member ministries and agencies
- Functioning as a dispute resolution body for ministries or agencies that are in conflict over issues related to water
- Ensuring that member ministries and agencies comply with the Water Law

The mayor of Kabul, the minister of agriculture, irrigation and livestock, the minister of economy, the minister of energy and water, the minister of health, the minister of mines, the minister of rural rehabilitation and development and the minister of urban development are members of the Supreme Council for Water Affairs Management.

River basin councils

River basin councils and sub-river basin councils represent water users through WUAs, relevant local and national agen-

cies and other stakeholder groups, including women's groups. The idea is to encourage a high degree of community participation, particularly in water allocation.

River basin organizations should help clarify and realize the roles and responsibilities of the various interest groups existing within each basin, while facilitating conflict resolution and user coordination. MEW is charged with establishing the councils. The Water Law states that MEW "can delegate, after improving the required working capacity and capability through technical trainings, some of its authority to the river basin council in accordance with the water law, when appropriate."

River basin agencies

River basin agencies are composed of line ministry staff and are responsible for providing technical support and expertise in water resources management to river basin councils.

Thus far, not a single river basin agency or council has been established. Within the Panj-Amu River Basin Programme, however, working groups have been meeting since March 2008.

WUAs and irrigation associations

WUAs and irrigation associations are the least well defined organizations in the Water Law (see next section). Only one article (18) mentions WUAs. However, it does propose that future regulations should clearly define the functions, responsibilities and power of WUAs.

Over the past five years, despite this gap, various NGOs have been engaged in establishing WUAs, particularly through the government-led Panj-Amu River Basin Programme. A number of these WUAs are currently engaged in capacity-building programmes.

Over the past five years, positive results have been recorded in the expansion of irrigation in the downstream areas of canals, the reduction of inequities in water access between the head and tail reaches of canals and the reduction of the occurrence of conflicts (see chapter 4). Nonetheless, these WUAs are informal; they have not yet obtained legal status, pending the publication of regulations by MEW. This lack of formal status, combined with the deficiency of judicial, technical and financial support, is hampering development.

The reform of any governance system is a long-term, costly process

Challenges and Limitations in Implementing Water Sector Reform

Practical limitations in implementing IWRM in river basins

The reform of any governance system is a long-term, costly process. Yet, in Afghanistan, water sector reform has been undertaken without the aid of comprehensive studies detailing the weaknesses and failures of the existing arrangements and the differences across the five river basins. Analysis of water sharing issues within the agricultural sector in the river basins indicates that there has been no clear model for the approach to water management issues in Afghanistan (see chapter 4). The Water Sector Strategy only states that Afghanistan faces the following challenges:[14]

- Lack of institutional, human, and financial resources to deliver adequate water services to the population

The absence of a sound case for reform is frequently perceived as a serious barrier in implementing IWRM

- Lack of mechanisms to regulate water use for irrigation, water supply, sanitation and hydropower generation
- Lack of integrated water sector governance

The absence of a sound case for reform is frequently perceived as a serious barrier to implementation.[15] As long as stakeholders are not convinced that IWRM is going to succeed precisely where previous governance arrangements have failed, there might be little buy-in.

Furthermore, it appears from evidence around the world that there is often a major disconnect between the IWRM concept and existing systems of water governance. Intricate socio-economic realities, traditional practices and beliefs and conflicting, irresolvable demands present an insurmountable hurdle.[16] Experience with the pilot Panj-Amu programme reveals the extent of the difficulty in establishing river basin organizations and implementing IWRM. A lack of interest in prioritizing institutional changes in river basins, the shortages in data and measurement infrastructure, the limitations in the enforcement of rules and issues of representativeness stand in the way of transforming IWRM into a practical and realistic alternative (box 2). Stakeholders have little faith in new governance because of the lack of results after five years of discussions. Problems in capacity continue to undermine the smooth implementation of regulations. Indeed, legislation and additional regulations on implementation will have no impact unless water authorities are able to carry them out and administer them.

Box 2 The difficulties in making IWRM a reality: the case of the Panj-Amu river basin

Five years after the start of the IWRM process, there are still no functioning sub-river basin agencies and councils in the pilot Panj-Amu river basin. The only outcome has been the regular meetings of two working groups (one per sub-river basin) consisting of water users and line ministry staff. The following points highlight some of the limitations in making IWRM and river basin management a reality:

Institutional change: low interest and priority

Over the last five years, working group participants have remained largely disinterested in the topics proposed by facilitators and discussed during monthly working group meetings. Instead, they raise their own grievances and priority concerns during meetings. These are not generally related to management issues; they focus almost exclusively on construction projects. Because communities in the Kunduz basin experience scarcity almost exclusively during periods of drought, the incentive to attend meetings regularly at other times is not strong.

Within the government, drought mitigation is invariably associated with large-scale infrastructure development. Among farmers, however, the rehabilitation of canal infrastructure, whether head works or offtakes, is the main interest. This does not necessarily mean that there is no awareness among farmers of management issues, but being involved in a time-consuming, long-term process of discussion and negotiation ranks low on the scale of priorities relative to quick technical fixes.

There are other indications that actors have not yet embraced the importance of river basin management. Symptomatic evidence of this is the fact, highlighted in chapter 4, that, during the summer of 2008, the approach to conflict mitigation was based on past practices rather than on the newly established river basin organizational structure.

Lack of data and measurement infrastructure

The ability to make and implement sound decisions based on reliable data involves having the infrastructure available to measure and monitor water flows. Without data and monitoring, water authorities are unable to design credible plans or provide evidence for enforcement once defaulters have been identified. The relevant infrastructure is still not in full operation five years after the new governance framework was established. Relegating decision-making power to stakeholders in the allocation of water without also providing them with clear information about the amounts of water available cannot have the expected impact on efficiency. This has contributed to the reluctance of users to discuss water allocation issues.

(continued on next page)

Box 2 The difficulties in making IWRM a reality: the case of the Panj-Amu river basin

Lack of enforcement

There is a large gap between water rights and practice along canals and in river basins (see chapter 4). The lack of enforcement capacity is a primary reason. The success of the adoption of any new institutional framework by local actors depends to a large extent on the transaction costs of enforcement. Considering the high costs of enforcement in the Panj-Amu river basin, for example, there is a risk that the new institutions will exist only on paper. This became glaringly apparent during the 2008 drought (see chapter 4). Thus, enforcement and the ability to finance it need to be considered a key priority in efforts to improve water resources management.

Representativeness

A 2008 study revealed that stakeholders participating in the Panj-Amu river basin working group are not representative of all users. For example, invited mirabs or elders only represent the canals where the Panj-Amu River Basin Programme and the affiliated project are under way. Furthermore, there is a higher participation rate among line ministry staff than water users. Stakeholders will need to be appropriately represented so that important issues, including water management, that are of particular concern to water users may be addressed.

Sources: Authors compilation; Varzi and Wegerich (2008).

Instead of focusing on making sure the blueprint for institutional arrangements is perfect, more attention and resources might be spent on the development of pragmatic tools and the capacity of actors, including local institutions, to resolve issues, particularly the enforcement of regulations. This 'IWRM-light' would involve supporting and working with existing organizations. Meanwhile, this would be accompanied by policy and legislative initiatives to establish new hydrologically based institutional structures.[17] Once practical progress has been made and acknowledged on the ground, actors might become more inclined to shift progressively towards institutional structures that would fall within the framework of the Water Law. This might be appropriate in Afghanistan, where the implementation of legislation is time-consuming and where policies have relatively little impact at the local level. Plans must therefore be modified to adapt to situations as they become apparent.

The over arching issue of capacity

Institutional capacity

Law-making is often a painstaking process. In Afghanistan, it is more challenging because of weak implementation and enforcement capacity. Despite the adoption of IWRM, together with the river basin management approach and the creation of multistakeholder platforms, the Water Law contains gaps and contradictions, and the definitions it puts forward lack clarity. The legislation requires improvement.

It will take years, if not decades, for the law to be implemented and enforced. Nonetheless, some provisions need to be revisited and improved. The law has flaws; yet, this may not be a problem because the process of clarification offers an opportunity for greater participation and more inclusive discussion about the issues. Two areas that require additional attention are discussed hereafter.

Overlapping functions among irrigation associations and WUAs: The Water Law attempts to distinguish the functions of MEW and the functions of the Ministry of Agriculture, Irrigation and Livestock (MAIL). There are, however, overlapping functions in the formation and support of water management associations and infrastructure projects along major canals.

The Water Law makes a distinction between two types of local associations: the WUAs and the irrigation associations. These are related to two separate ministries, namely, MEW (for WUAs) and MAIL (for irriga-

Regulations will have to be enacted to provide guidance in the interpretation of the water law

tion associations). The distinction between WUAs and irrigation associations remains vague and does not seem to conform to imperatives on the ground, but, rather, to disagreements between ministries attempting to determine the institution under which such associations should fall.[18]

In the case of the pilot programme in the Panj-Amu river basin, associations are formed at the canal level. Canal water is used for numerous purposes, such as irrigation, domestic uses and productive uses, including the generation of electricity. Most contentious issues are linked to water sharing for irrigation. If separate canal associations were to fall under the responsibility of different ministries, this would likely lead to greater confusion, especially in resolving intercanal disputes.

In the Panj-Amu river basin, water users seek the resolution of grievances through the water management department, while the agriculture department has tended to remain less involved. The NGOs that have helped establish various associations during the past five years usually coordinate with MEW.

The Water Law states that MEW is ultimately responsible for settling disputes should local institutions fail to do so. Thus, irrigation associations that are under the authority of MAIL may have to resort to MEW to resolve conflicts.

Ideally, water users should be able to make their own decisions in establishing associations. Unnecessarily complicated relationships between associations and a ministry need to be carefully examined, and pragmatic solutions prioritized.

The rehabilitation of water structures: In specific functions, such as the rehabilitation of water infrastructure, the Water Law also lacks clarity on the distinct roles of MEW and MAIL (table 3). Thus, while the rehabilitation of infrastructure, including main canals, is assigned to MEW (article 10, paragraph 6), MAIL oversees the rehabilitation of irrigation networks (article 11, paragraph 1). Because each irrigation network is expected to include a main canal, there is overlap and confusion between the ministries.

Its use of the term traditional main canals represents another example of the way the law sows confusion with respect to the overlapping responsibilities of MEW and MAIL. Because the term has yet to be defined, MEW's responsibility to upgrade traditional main canals (article 10, paragraph 9) potentially overlaps with other provisions (article 11, paragraph 7) that assign MAIL the responsibility of modernizing irrigation networks. A ministry's responsibility for the rehabilitation of infrastructure ultimately leads to control over significant resources. Thus, any attempt to clarify responsibilities is likely to spark turf wars among ministries at the expense of water users. Yet, regulations will have to be enacted to provide guidance in the interpretation of the law.

Table 3 **Table 3: The responsibility for the rehabilitation of water infrastructure sometimes overlaps between MEW and MAIL**

Responsibilities for Rehabilitation of water infrastructures	
Ministry of Energy and Water	*Ministry of Agriculture, Irrigation and Livestock*
Building and rehabilitating dams, head works, main canals and oversee their safety and sustainability.	Rehabilitating, developing and protecting irrigation networks.
Establishing water user associations.	Establishing irrigation associations that will be assist in the decision making related to planning, the utilization of water resources and the maintenance of irrigation networks.
Modernizing traditional main canals.	Promote appropriate irrigation technology to improve quality and mitigate water wastage.
	Maintaining irrigation networks together with water users associations and fair distribution of water rights within existing networks.

Source: Adapted from Water Law (2009).

Human resource capacity

Individuals are key players in the establishment and operation of effective institutions. In the water sector, a lack of sufficiently skilled personnel is a barrier to the reform of government water agencies and the implementation of subnational and national policies. Of 1,050 staff in one agency, for example, only 30 are qualified and possess expertise related to their area of work.[19] Similarly, at the subnational level, experts continue to migrate from provincial water departments to the private sector and NGOs, where the work benefits and the opportunities for personal advancement are greater.

Individual technical capacity should be developed through higher education and training programmes. This aspect of capacity-building has featured strongly in the Water Sector Strategy, which also includes the longer-term objective of developing the local university and technical college curricula related to the water sector. [20] Despite this emphasis, the educational institutions responsible for training water professionals must overcome numerous obstacles that greatly reduce the ability to meet the ANDS water capacity goals (box 3).

Even where there is collaboration between NGOs and the ministries, language barriers and the lack of available staff hinder the transfer of skills from donor-driven projects to local agency staff. A capacity assessment conducted by the Asian Development Bank at MEW found that, while most donor-funded projects require that national ministry staff work alongside international experts, an insufficient number of suitably qualified staff are available to fill the positions.[21]

Gaps in the knowledge base

A lack of reliable data is another major barrier to water resource development and management in Afghanistan. The physical, technical, social and economic information required for the development, implementation and monitoring involved in water-related projects is limited. Policies and plans are constructed and adopted largely on the basis of historical data that are often inaccurate and usually out of date.

Efforts to improve the knowledge base are currently under way. There is investment in hydrological data networks, but progress is slow. Remote sensing technology, for example, is being used to collect data on the physical and technical aspects of water. European Union–funded social water management projects have relied on this technology to produce maps and images of canals, thereby facilitating decision-making among

A lack of reliable data is a major barrier to water resource development and management in Afghanistan

Box 3 Kabul Polytechnic University neglected: the challenges of capacity-building

Established with the support of the former Soviet Union in 1966, Kabul Polytechnic University was designed to train engineers skilled in a variety of disciplines. Though considered in Afghanistan as a leading institution responsible for training future engineers, it is still unable to produce engineers sufficiently skilled to implement modern concepts of river basin management and to oversee water projects.

Kabul Polytechnic University has five departments, which offer degrees in civil, electrical, mechanical, geological, mining, hydrological, water, environmental and computer engineering. A new department of water supply and environmental engineering was established in 2010. Of the 190 lecturers and professors teaching 2,500 students,only a handful hold postgraduate degrees. Each year, 50 to 60 students graduate with degrees in electrical and hydrological engineering.

Kabul Polytechnic University has experienced many successes and failures in the 44 years since its founding. During the war, the university lost many experienced professors. Some were killed; many others left Afghanistan and have never returned. Most of the lecture notes date from 1970, and many library books are in Russian. The university cannot provide Internet services to staff, professors, or students and now faces a budget shortfall, although it also desperately requires new equipment, including a computer laboratory, library, books and technical equipment. Professors report that wages are too low to cope with the high living costs in Kabul.

Source: Centre for Policy and Human Development interviews.

stakeholders, including at the local level. With reasonable effort, remote sensing thus offers the potential to increase the information available.

Efforts are also needed to improve and consolidate knowledge systems and to supplement these with other sources of information such as research, assessments and feasibility studies.

The knowledge gap among government water agencies, donors and local water organizations is being exacerbated by the lack of mechanisms to facilitate information sharing and distribution. Project progress reports are not widely distributed to the relevant stakeholders, but are retained instead for donors and first-level implementing agencies. A sector wide monitoring and evaluation mechanism is also not available. The information such a mechanism would gather would be crucial in ensuring that a wide range of stakeholders and beneficiary communities are involved in decision-making, that desired outcomes are delivered and that any deviations from stated goals are accounted for.

The inexperienced local private sector

The problem of inadequate capacity is not limited to the government sector. NGOs and private sector agencies are also plagued by insufficient capacity.

Although the number of private companies has multiplied significantly in the face of a growing demand for services, few of these companies have experience with irrigation works. It is therefore crucial that the private sector be supported so as to play an integral role in all capacity-building programmes and policies. For projects directly contracted by donor agencies, appropriate policy will involve working with relevant local contractors. Some projects, such as the European Union–funded Panj-Amu River Basin Programme, have adopted such practices.

Weak enforcement capacity

Legislation requires vigorous enforcement and systematic monitoring. Monitoring should be based on indicators that assess the effectiveness of new arrangements and help improve system performance. Unless the judiciary can adjudicate disputes in an effective, expeditious and transparent manner, there is little chance that rules will be respected and enforced beyond the status quo. Ample evidence on river basins and canals indicates that judicial support for newly formed organizations will be required to bring about effective change (box 4).[22]

Box 4 A customary water institution for conflict resolution

The Tribunal de Aguas de Valencia is a long-standing, customary water institution that meets every Thursday at Valencia Cathedral, Valencia, Spain. The aim of the tribunal, which was established by James I of Aragon in the 13th Century, is to regulate the distribution of irrigation water from the Turia River.

The water tribunal is recognized in Spanish law with authority to render decisions concerning conflicts among users of the Valencian irrigation network and with powers of enforcement. Although criticized for disregarding the tenet of centralized jurisdiction in Spanish law, the tribunal has earned the trust of water users. Its application of accepted principles, its upholding of guarantees, its speed and its efficiency have made the tribunal world famous.

Administered from within the Ministry of Public Works, the tribunal is independent; the judges are eight workers who are elected to office for two-year terms. The eight judges also represent a variety of irrigation networks or comunidades de regantes. The judges wear traditional smocks and hand down their sentences orally. The court is a civil tribunal, and its decisions can be enforced through fines or other sanctions. If voluntary compliance does not occur, then the tribunal can enforce its decisions through the elimination or confiscation of the water right. There is no right of appeal, and the tribunal is a model of efficiency because cases are solved rapidly.

Source: Iza and Stein (2009).

Financing the Water Sector: Beyond the Rhetoric

Developing and implementing water-related activities require funds, whether for infrastructural projects or planning, data collection, regulation and so on. Even if all the necessary policies and laws are in place, lack of funding will halt efforts to improve water access and supply.

Three broad functions define water sector management, as follows.

- Water resources management and development, including river basin development, storage and flood and drought management
- Water service delivery for agriculture, municipalities and households, including operation, maintenance, infrastructure rehabilitation and wastewater treatment
- Integrative functions, such as water sector policy development, research, monitoring and judicial support for compliance and enforcement[23]

Each of these functions is associated with investments and recurrent costs. Recovering these costs must be undertaken through government taxes, water service revenues, or external aid, on which Afghanistan still greatly depends.

An underfunded water sector

Donor contributions are vital to achieving the country's vision for the water sector, including the targets and benchmarks in water set through the Afghanistan Compact and the Millennium Development Goals for Afghanistan.[24] From 2001 to 2009, international bilateral and multilateral development aid to Afghanistan reached $24 billion (table 4). While largely project based, this assistance has been structured to support ANDS priority sectors, particularly over the past two years.

However, water does not feature as a core ANDS development sector in the allocation of aid. Instead, the water sector cuts across three ANDS development sectors, namely, infrastructure and natural resources, agriculture and rural development, and health. These three sectors comprise 48 percent ($11.7 billion) of the total development aid to the country (figure 3). Of this, the water sector has been the recipient of only $1.2 billion, or 5 percent of total development aid (figure 4).

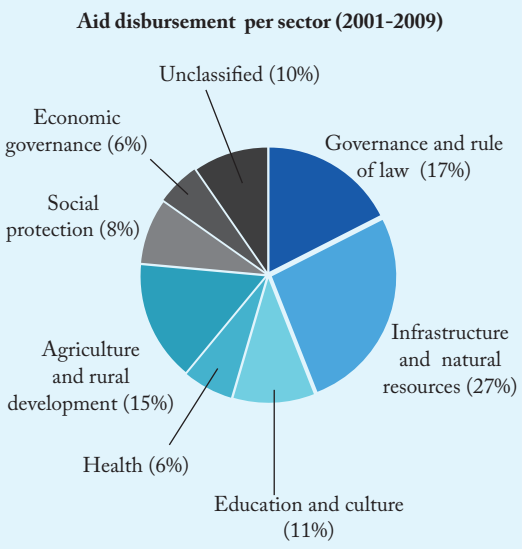
Worldwide, aid to the water sector has been relatively constant, at around 5.4–6.2

Table 4 **Sectoral allocation of overseas development assistance ($) to Afghanistan (2001-2009)**

ANDS Developmental Sectors	Committed, $ million	Disbursed, $ million
Governance and rule of law	4,229	2,132
Infrastructure and natural resources	6,421	4,060
Education and culture	2,542	1,636
Health	1,560	987
Agriculture and rural development	3,740	2,974
Social protection	2,025	1,705
Economic governance	1,352	1,748
Unclassified	2,322	2,065
Total	$24,191	$17,307

Source: Data of the Ministry of Finance (2010).

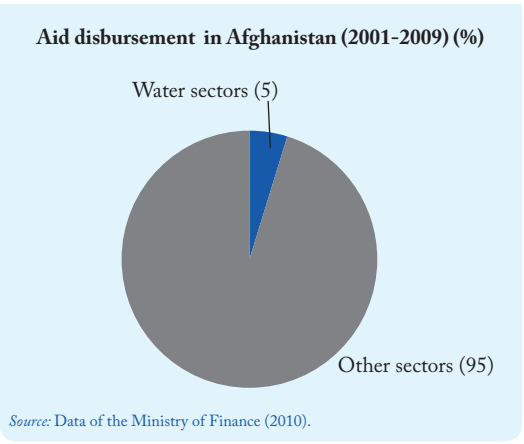
Figure 3 **Water does not feature as a core developmental sector in the ANDS as far as the allocation of aid is concerned**



Source: Data of the Ministry of Finance (2010)

Long-term initiatives such as dam construction become almost impossible under current budget conditions

Figure 4 **The under-funded water sector as percentage of total developmental aid**

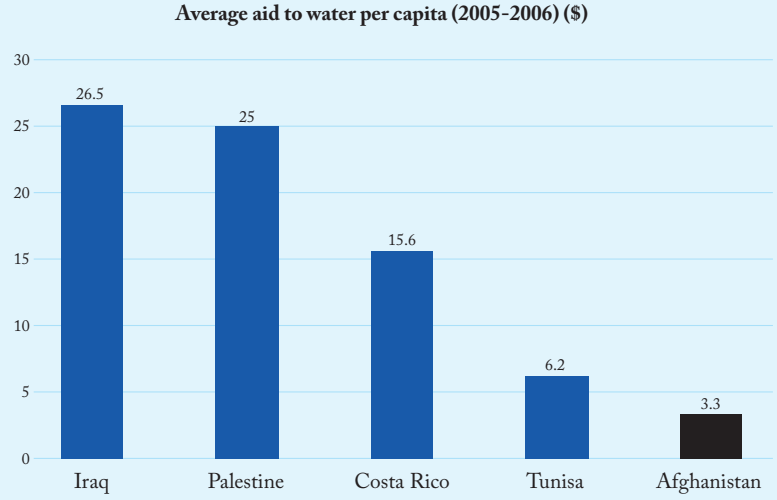


Source: Data of the Ministry of Finance (2010).

percent of total aid.[25] In Afghanistan, aid to the water sector is proportionally similar to or somewhat lower than the corresponding aid provided to other developing countries. However, in per capita water sector allocation, Afghanistan receives one of the lowest shares. While Iraq, Palestine and Tunisia received $26.50, $25.00, and $6.20 per capita, respectively, in 2005–2006, for example, Afghanistan received only $3.30 (figure 5). Because Afghanistan is lagging well behind the rest of the world in access to improved water sources and sanitation facilities (see chapter 3), infrastructure, storage facilities for irrigation and drought mitigation, and overall capacity and skills (see chapter 2), the low share of aid to the water sector in Afghanistan raises serious questions about the extent to which water is considered a priority in the country's recovery and development.

As a former United Nations special representative to Afghanistan stated in 2009, "Whether we look at poverty, food security, health, or economic development, there is no issue more important for this country at this time than the development of Afghanistan's water resources."[26] It appears that the numbers do not match the rhetoric.

Figure 5 **Despite its water crisis, Afghanistan received negligible funding for its water sector**



Sources: OECD and World Water Council (2008) for Iraq, Palestine, Costa Rica and Tunisa. Ministry of Finance for Afghanistan (2010).

Inconsistent trends in aid to the water sector, 2003–2009

International development assistance for the water sector in Afghanistan has increased dramatically since 2003. From 2003 to 2009, donor commitments to the sector rose by 38 percent, to reach a total of $456.8 million over the period. In 2004 alone, aid commitments jumped to $251 million, a 168 percent rise over 2003 (figure 6). This corresponded with the launch of important projects and national priority programmes such as the Afghanistan Urban Water Supply and Sanitation Project, phase II of the Kabul Water Supply Project, the Emergency Irrigation Rehabilitation Programme and the National Rural Water Supply and Sanitation Programme.

There was a temporary decline, to $89 million, in 2005, but, for the remainder of the period, aid to the water sector grew at an average annual rate of 8 percent. In 2009, the total aid committed to the sector was $160 million, an increase of 70 percent relative to the corresponding amount in 2003.

Figure 6 reveals that, although overall allocations for the water sector increased, they were unsteady. This type of erratic financial support inhibits long-term planning; planners and project designers require a predictable budget stream. Long-term initiatives such as dam construction become almost impossible under such budget conditions.

The poor performance of aid in the water sector

From 2003 to 2009, of the $1.2 billion in donor funds committed to the water sector, only 48 percent ($579 million) was disbursed for water projects.[27] Because data on aid expenditures are largely unavailable and in most cases unreliable, disbursement data are used as a measure of the performance of aid delivery. The 2009 'Donor Financial Review' states that, during 2003–2009, about 78 percent of the aid committed to various development sectors was effectively disbursed.[28] For the same period, only 33 percent of the aid earmarked for the water sector and channelled through the government budget was disbursed; donor agencies fared only slightly better, at 54 percent (figure 7).

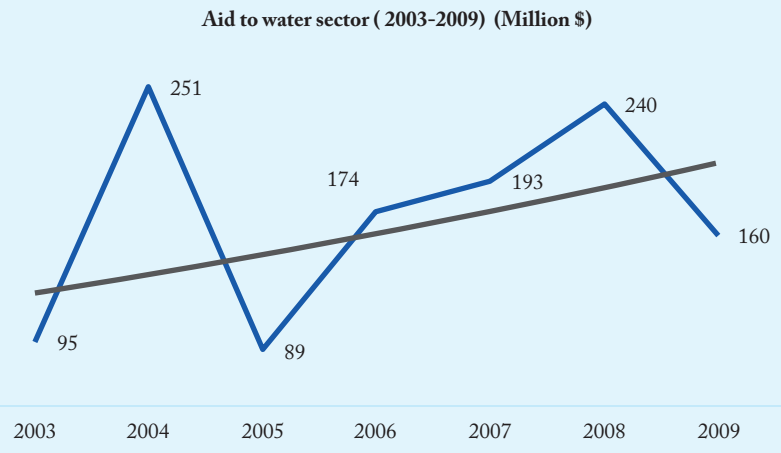
Given that the corresponding disbursement rate is 48 percent in the water sector, it is clear that government agencies and donors active in the water sector are not performing well. The issue of the low disbursement rate becomes more critical because of the growing need for improved water sources and the huge share of the population without access to safe, reliable water and improved sanitation facilities.

However, this is not true across the board. Donors such as the United Kingdom and the United States show a higher disbursement rate, at 77 and 67 percent, respectively. Meanwhile, the government performance is also poor: only 3 percent of discretionary resources are disbursed to the water sector.

The distribution of aid by water subsectors

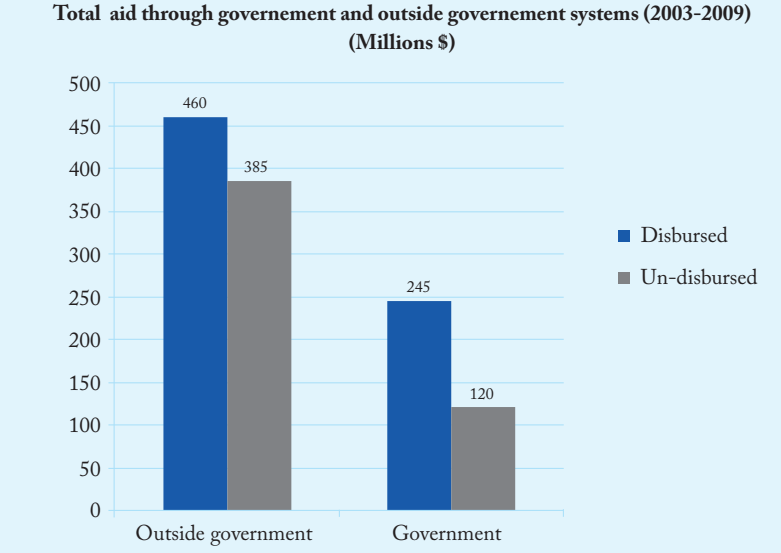
Activities funded under the category of aid range from support for water policy and planning to the construction of water infrastructure and capacity-building. The Development Assistance Committee of the Organisation for Economic Co-operation and Development divides water-related activities into six broad categories. These are also applicable to the water sector in Afghanistan (table 5).

Figure 6 **Increasing but unsteady trends in aid to water sector (2003-2009)**



Source: Data of the Ministry of Finance (2010).

Figure 7 **Low aid disbursement rates through government and donor agencies**



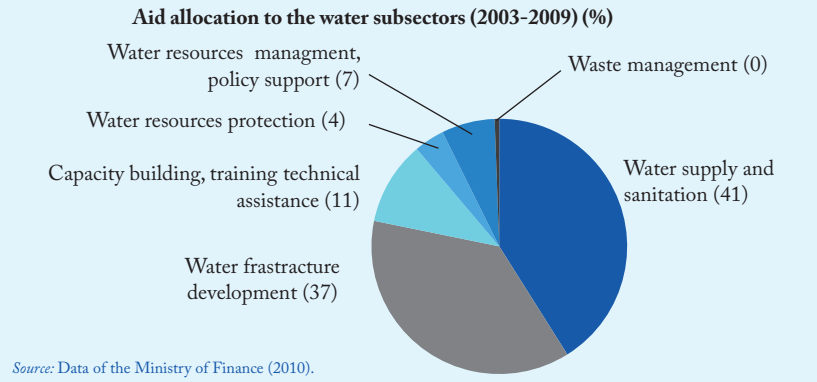
Source: Data of the Ministry of Finance (2010).

Table 5 **Distribution of aid by water subsectors (2003-09) ($)**

Water subsectors	Committed	Disbursed
Water supply and sanitation	494.5	294.6
Water infrastructure and development	447.1	191.8
Capacity building and training	127.8	37.1
Water resources protection	46.3	25.9
Water resources management, policy and administration	81.2	24.0
Waste management	7.0	5.5
Total	$1,204	$579

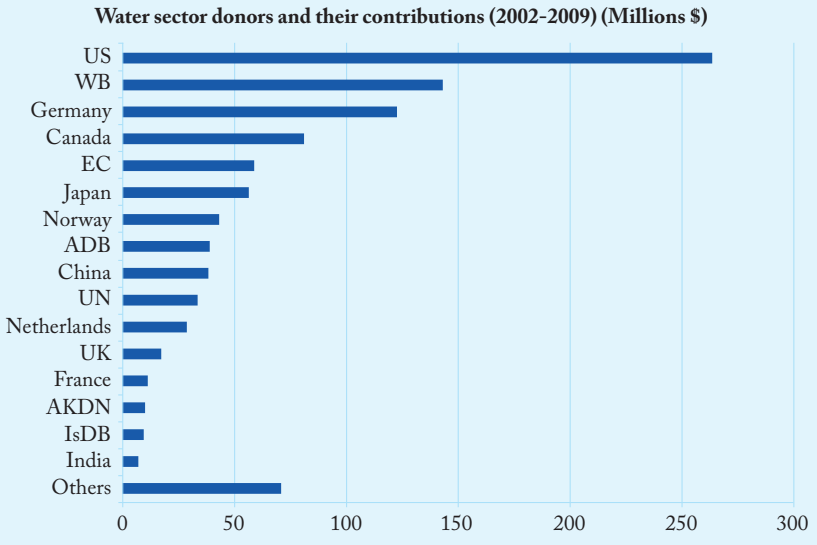
Note: Aid to projects that are primarily for hydropower is not included.
Source: Data of the Ministry of Finance (2010).

Figure 8 **WATSAN and infrastructure development take the highest share of aid to the water sector**



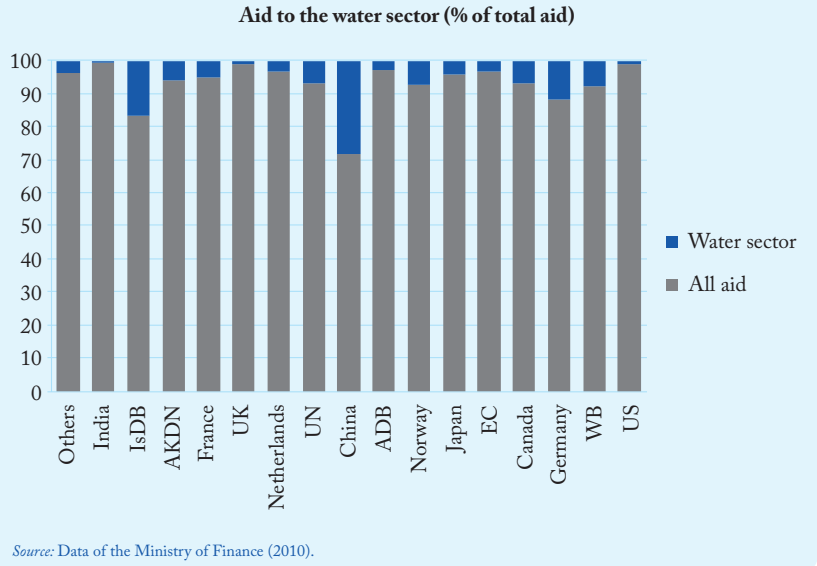
Source: Data of the Ministry of Finance (2010).

Figure 9 **The United States is ranked the top donor of aid to the water sector**



Source: Data of the Ministry of Finance (2010).

Figure 10 **The United States contributes the lowest proportion of its aid to the water sector**



Source: Data of the Ministry of Finance (2010).

Table 5 and figure 8 show that development aid in the water sector mainly supports water supply and sanitation, as well as the development of infrastructure, accounting for 41 and 37 percent ($495 million and $447 million), respectively, of the total aid commitment in the sector. Although water and sanitation also cover interventions that aim at improving hygiene, most of the aid commitments in the water sector are, in fact, aimed at infrastructure development. This reflects the focus of the government and its international partners on enhancing the foundations that ensure economic development and improvements in the socio-economic well-being of the Afghan people.

Allocation of aid by agency

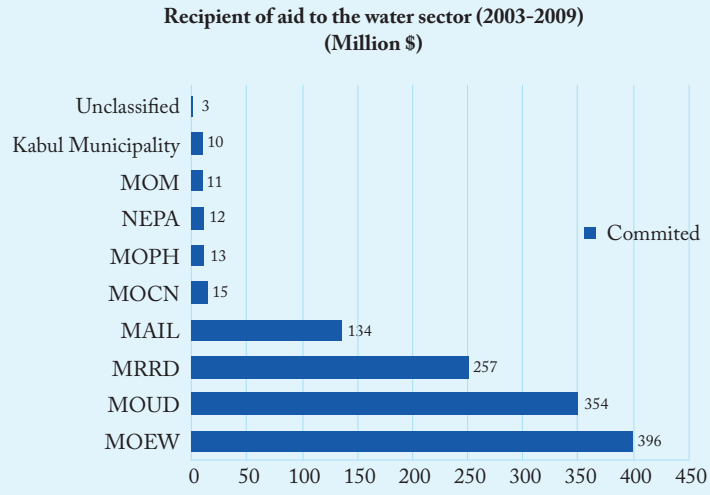
With approximately $264 million in aid commitments, the United States is the largest donor in the water sector. Its contributions accounted for 22 percent of the total aid committed to water projects in 2003–2009. It is followed by the World Bank, at 14 percent ($144 million); Germany, at 12 percent ($123 million); and Canada, at 8 percent ($81 million) (figure 9).

Water sector donors differ significantly in terms of the share of their total aid contributions that they assign to water projects. Figure 10 presents the paradoxical relationship that exists between water as a priority intervention and the share of total donor aid dedicated to water projects in 2003–2009. The donors that assign the largest shares of their aid contributions to the water sector are China (28 percent), the Islamic Development Bank (16 percent) and Germany (12 percent). Major water sector donors that contribute the smallest shares of their aid contributions to the water sector are the United States (1 percent), Canada (7 percent) and the World Bank (8 percent).

Main recipients

The four core water-related ministries—MEW, the Ministry of Urban Development, the Ministry of Rural Rehabilitation and Development, and MAIL—were the main recipients of water sector aid from 2003 to 2009, accounting for almost 95 percent of the total aid in the sector. Other agencies had to compete for the remaining 5 percent. Figure 11 ranks the top aid recipients relative to the total aid distribution. There are serious caveats, however. World Bank data suggest that as much as two thirds of development assistance is spent outside the government budget and thus outside governmental control and ownership.

Figure 11 **Four ministeries were the main recipients of water sector aid from 2003 to 2009**



Source: Data of the Ministry of Finance (2010).

Aid Effectiveness in the Water Sector

Financing should go hand-in-hand with the effective delivery of aid. In Afghanistan, a picture of aid emerges that is characterized by fragmentation, unpredictability and distortions in allocation and delivery. A plethora of factors influences this outcome, including a lack of well-developed policies; the absence of coherent, prioritized and needs-based programmes; poor capacity; and a complex governance environment, in addition to a lack of effective mechanisms for dialogue and coordination and limited data on water sector development.

All of these issues may be addressed through the five principles of the Paris Declaration on Aid Effectiveness (box 5). Because individual indicators on aid effectiveness are not available, we use the principles of ownership, alignment, harmonization, management for results and mutual accountability as the framework for our review of the situation.

The 2006 and 2008 surveys on monitoring the Paris Declaration provide an aggregate baseline for Afghanistan for each of the five principles of aid effectiveness. Because not all indicators are applicable, we use only those that will enable us to assess the progress in the water sector. Table 6 tabulates the principles against the relevant indicators and the baseline performance.

Box 5 **The five Paris principles**

In the Paris Declaration on Aid Effectiveness (2005), donors and governments together laid out the following five operating principles:

- Ownership: Partner countries exercise effective leadership over their development policies and strategies and coordinate development actions.
- Alignment: Donors base their overall support on the partner countries' national development strategies, institutions and procedures.
- Harmonization: Donors' actions are more harmonized, transparent and collectively effective.
- Managing for results: Managing resources and improving decision-making for results.
- Mutual accountability: Donors and partners are accountable for development results.

Source: Development Assistance Committee, Organisation for Economic Co-operation and Development.

Table 6 **Aid Effectiveness principles, indicators and baseline**

Principles of aid effectiveness	Indicators	Base line, 2008
Ownership	Operational development strategy that shapes public expenditure	D (rating)*
Alignment	Use of country systems (public finance management and Procurement)	48 percent of aid channelled through the government budget
Harmonization	Use of Program Based Approaches (PBA)	40 percent of aid provided in support of PBAs
Managing for Results	Results oriented reporting and assessment systems	D (rating)*
Mutual Accountability	Mechanism to assess progress with respect to implementing agreed commitments	Joint Coordination and Monitoring Board

Note: * A (strong) to E (weak).
Source: OECD (2007, 2008).

Ownership is defined as the ability of the government to lead the national development process by conceiving of credible and well-prioritized sector strategies and programmes that donors can align with their development assistance. The 2008 aid effectiveness study gave Afghanistan low marks for ownership because of the length of time required to implement ANDS. There are many reasons behind the delay. Although there is a stand-alone national water strategy in ANDS, stakeholders do not share the same vision for the development of the sector. Implementation is based on the plans and policies of individual ministries, and these, in most cases, diverge from ANDS priorities. The sector is similarly not well reflected in the national budget. Mechanisms for linking the policy and programme priorities of the Water Sector Strategy with the budget process are largely non-existent.

The challenge in future will be to synchronize individual policies with ANDS and the budget process so as to place an even stronger emphasis on linking aid and public expenditures to sector priorities. The hurdles are even greater at the subnational level, where planning and monitoring capacity is weak (box 6). The ability of the government to lead the development process is handicapped in the provinces.

Provincial development plans have been drafted in all provinces. These plans could enable local governments to take ownership and practise leadership. However, the capacity challenges are too great.

The extent to which there is alignment between development aid and national development plans and priorities is best measured by the recipient government. According to the 2008 aid effectiveness study, using the institutions and systems of partner countries increases aid effectiveness by strengthening the sustainable capacity to develop, implement and account for policies to citizens and to national representative bodies such as parliaments. In this sense, the alignment in the water sector is weak.

Only approximately 30 percent of the total aid in the water sector is delivered using the government public finance management systems, including the procurement system. This is considerably lower than the corresponding level of 48 percent in the case of total aid. In both cases, the remainder is managed and delivered directly by donors, with little or no engagement of government systems.

Aid harmonization primarily revolves around improving the coordination among agencies and streamlining procedures so that the duplication of effort is reduced and transaction costs are minimized. In the water sector in Afghanistan, harmonization is moderate. Although the Afghanistan Supreme Council for Water Affairs Management was established to coordinate and direct the development of parameters for investments in national water resources, its effectiveness has not yet been demonstrated.

The Water Sector Strategy identifies eight national programmes for the water sector. To

Box 6 The ownership of aid is challenged by weak state capacity in Faryab Province

Faryab Province is located in the north-western region of Afghanistan. Only 25 percent of the population uses a protected water source. Moreover, a large segment of the population has severe problems because of saline water. The Water, Sanitation and Irrigation Programme and the National Solidarity Programme, two large-scale rural development programmes, have spent more than $6.1 million on water, sanitation and hygiene projects in Faryab.

In 2007, the local government developed a provincial development plan through a consultative process. The plan sought to identify priority projects for a period of five years. It was expected to serve as a tool to promote the ownership of development by the government and facilitate the alignment of donor-funded projects in Faryab. Currently, a Norwegian provincial reconstruction team is requesting that NGOs consult with and obtain approval from the appropriate local government department before submitting a project proposal. This represents a positive step towards enhancing aid effectiveness. However, the application of the provincial development plan in Faryab is challenged by obstacles in the ownership, alignment and harmonization dimensions of aid effectiveness.

For example, the local government generally lacks the capacity to engage with local communities, design strategies and develop plans beyond a simple wish list. Donors and NGOs therefore fill the void by conducting their own surveys, identifying development needs as they see fit and making their own plans.

Moreover, because NGOs are the main project organizers and offer higher salaries, they attract the few qualified staff away from government offices. This translates into a vicious cycle: government capacity is not developed, and adequate overall development plans are not formulated. This damages the credibility of the government because local residents understand that NGOs are delivering the services that would normally be provided by the government.

Nonetheless, the government could play a stronger role by ensuring that the projects are delivering results efficiently. However, state institutions are unable to perform this monitoring and regulatory role. For instance, the most well equipped provincial institution is the Faryab rural rehabilitation and development department. This department includes a water and sanitation unit, but the unit is staffed by only three water engineers and one health officer, who handles hygiene education for the entire province.

There is clearly a shortage of human resources to coordinate water, sanitation and hygiene interventions, survey the NGO projects being implemented, monitor projects and certify progress through the Ministry of Rural Rehabilitation and Development and the United Nations Development Programme. Without transparent monitoring, suspicion about the real cost of water projects is raised. Indeed, per capita project expenditure distributions in Faryab are uneven: the highest spending occurs in Maymana, the provincial capital, at $11.4 per person, and the lowest spending occurs in the district of Belchiragh, at $0.28 per person.

In terms of harmonization, there are mechanisms that would allow for greater cooperation among actors. However, there are problems in implementation. NGO staff usually meet with local government authorities and other local actors to sign memoranda of understanding so as to persuade all the main players to participate in particular projects. Yet, this usually takes place only after the projects have been negotiated with and approved by the donors, thus effectively limiting the meaningful input of local inhabitants and the local government during project planning. The memoranda therefore tend to have little practical significance.

In terms of managing for results, the situation is mixed. A number of NGOs have established mechanisms for monitoring and evaluation in their own projects, but there is no government-controlled or standardized monitoring and evaluation.

Sources: Ibrekk et al. (2006), CPAU (2010).

achieve aid harmonization, all ministries and agencies are required to align their ongoing and planned projects with the national water programmes. For example, projects and activity components that focus on capacity-building are supposed to be clustered within the Capacity-Building and Institutional Development Programme. Similarly, projects and activities concerned with the rehabilitation of infrastructure and the planning and implementation of new infrastructure are to be undertaken within the Water Resources Development Programme. Projects focused specifically on the rehabilitation and development of traditional irrigation systems and emergency irrigation infrastructure are to be

Effective water governance is almost impossible in the absence of reliable and timely information about water availability, demand and access

joined under the Irrigation Rehabilitation Programme. Similarly, water resources management activities are to be bundled under the River Basin Management Programme, which is to facilitate the transition to IWRM.

Managing for results in the water sector is weak. For example, water sector information systems have been developed by various water agencies in complete isolation from each other. The quality and coverage of the information are poor, and access tends to be limited to the organization that manages the system. Likewise, there is no clear framework for monitoring or for reviews to report on progress and contribute to the national policy and budgeting processes.

Mechanisms for mutual accountability in the water sector are almost non-existent. Through the joint coordination and monitoring board, water sector benchmarks, particularly those in the Afghanistan Compact, are assessed and reported on to a high-level meeting of the government and international partners. This process is ad hoc, however, and the benchmark analysis is general and has little impact on policy decisions in the government and the donor community. A joint performance assessment framework needs to be developed and supported through the use of specific, quantifiable indicators. This would facilitate a stronger partnership among agencies and provide a reasonable basis for expanding aid to the water sector.

Improving Governance and Aid in the Water Sector

Water governance is a means to an end, which is effective water management. However, the end is also better human development outcomes among individuals, households and communities,which, as a result,are able to access water more equitably and sustainably and in a way that fosters empowerment, especially among the most vulnerable and marginalized, including women, Kuchis (nomadic pastoralists), children and the elderly.

Effective water management can be characterized as follows:

- Efficient: Water management maximizes the use of water resources within rationalized patterns of consumption that benefit most consumers and take into account not only water, but also other resources, including social and human capital.
- Equitable: Benefits and costs are both shared within a transparent process designed to promote sound water management decisions.
- Sustainable: Water management supports the well-being of society without undermining the integrity of the hydrological cycle or the ecosystems that depend on this cycle.

Experience in seeking to improve water governance shows that development cannot be charted in advance, but rather it must be navigated through process of learning and adaptation. Navigating such a journey requires new approaches to public management, policy-making and natural resources management, approaches that embrace the inherent uncertainty and complexity of our inter-related economic, social and environmental systems. In water governance reform in Afghanistan, similar new approaches will have to be followed in certain areas. These areas are outlined in the next subsections.

Filling the information gap and sharing knowledge

Effective water governance is almost impossible in the absence of reliable and timely in-

formation about water availability, demand and access. To ensure effective and inclusive participation,this information must be made accessible to the needs of stakeholders with diverse backgrounds and differing levels of educational attainment. The establishment of an appropriate infrastructure and environment for monitoring and evaluation will be an important step in the effort to gather information and reduce the transaction costs associated with tracking progress in decision-making and the implementation of plans.

Providing infrastructure

Infrastructure development is not yet sufficient to support changes in management. Infrastructure must therefore be built to improve supply and reduce inter seasonal variations in water availability. This should represent an opportunity to control water flows more effectively and contribute to more efficient management and operations. It should also advance ties of trust with external actors. Planning infrastructure development through collaboration with river basin agencies and river basin councils or working groups should be viewed as a team-building effort. Infrastructure planning attracts stakeholder interest and is a good entry point for discussions on water allocation and other key issues.

Developing skills and enhancing capacity

In the water sector, investment in infrastructure alone will not produce the desired development outcomes. Investment in human and institutional capacity is equally important. The immediate objectives can only be realized through the deployment of skilled personnel and effective institutions. Achievement of the long-term goal of establishing reliable, safe and sustainable water services is directly dependent upon the achievement of short-term goals.

Collecting, analysing and disseminating water information require expertise that has not yet become developed in Afghanistan. Education initiatives and awareness campaigns that target all actors and institutions must be emphasized if water resources are to be utilized responsibly and equitably. This could be undertaken through on-the-job training and a process of guided learning. The Water Sector Strategy emphasizes the potential role of universities in training present and future generations of water managers. It is evident that such a capacity is not now available. The international community therefore has a responsibility to provide this capacity.

In the meantime, Afghan experts within the country and in the diaspora must be engaged in the effort. Few local professional engineers possess the skills and knowledge necessary to undertake national water development, including addressing irrigation and water storage deficiencies, but the same is not true of Afghan engineers residing outside the country. Because of the poor state of capacity, the government must persuade these expatriate engineers to return at least for short periods.

A serious shortcoming is the lack of a listing source of resident engineers at the Afghanistan Engineers Association. Although the association is open to membership by postgraduate engineering students at approved institutions, it focuses only on the publication of engineering manuals in Dari, English and Pashto. It is not active in professional development,and it does not seek to facilitate the entry of qualified Afghans into water sector projects. Therein lies a paradox: the need for qualified personnel is desperate; yet, most graduates of engineering faculties across the country are unemployed and enjoy little opportunity to acquire new skills and knowledge in water resources management.

Focusing on conflict resolution and the enforcement of regulations

The sustainable operations of newly formed organizations such as WUAs require the following:

- Rules must be straightforward, easy to understand and include locally devised access and management regulations.
- The enforcement of rules must be facilitated.
- Adjudication must be accessible and affordable.
- Directors of monitoring services and other officials must be accountable to users.

Over the last five years, several social water management projects have been focusing on WUA formation and have managed to ensure that the first two points above are being met through a participatory process. However, the last two points are hardly being addressed and appear to be a major hurdle in the long-term sustainability of newly formed WUAs. Thus, in parallel with WUA capacity-building, the government, through MEW and MAIL, should focus on providing judicial support for the local enforcement of by-laws. The availability of affordable adjudication will be a key factor in ensuring the sustainability of the newly formed WUAs.

The Water Law does not refer to possible support for WUAs as part of the responsibilities of river basin agencies. According to article 34, however, if WUAs are unable to resolve water conflicts internally within seven days, it is the responsibility of river basin councils and river basin agencies to intervene to seek resolution. If unsuccessful after a month, water users should seek the assistance of the courts for resolution. In the agricultural sector, conflicts related to water access must be resolved locally within a short time-frame. An interval longer than 10 days to two weeks in summer between turns among irrigators in the use of irrigation water is most likely to lead to crop failure. Yet, most sub-river basin councils and agencies are too distant and thus not practical for conflict resolution among most farmers. Relying on the courts to resolve water-related issues is not a traditional practice. Overall, the transaction costs of such procedures are most likely to discourage water users from becoming allies of governance reform.

Developing self-financing procedures

The development and maintenance of a new governance system require financing. Capacity-building and communication and information management are particularly costly. There have been discussions at river basin councils about setting water user fees to cover the cost of running water systems, but no other steps have been taken. It is unrealistic to consider self-financing in the first years of such an important institutional change. Users will not be interested in financing a new and unfamiliar system that has yet to prove its worth. This means that costs will have to continue to be borne by the international community, at least until water users can become convinced that the new system brings benefits that will outstrip their expenditures.

Priority Actions for Improving Aid Effectiveness in the Water Sector

Progress in the water sector is being hindered not only because of the lack of adequate, predictable and sustained investment and problems in the delivery of aid, but also because of the absence of mechanisms, instruments and processes to foster aid effectiveness. The challenge is to ensure that the relatively small share of development aid earmarked for the water sector is used as efficiently as possible and in pursuit of goals that are sustainable

and help advance human development.

Ownership could be promoted at the subnational level by clarifying the roles and responsibilities of state entities, decentralizing line ministries, building institutional and systems capacity at the local level, decentralizing budgetary and planning responsibilities and expanding the participation of communities and civil society in the design, implementation, management and monitoring of development activities (see table 6).

Without public finance management and budget execution capacity, the donor community is unlikely to increase direct aid to government budgets. Alignment between donor support and government strategies and development initiatives is difficult in the context of widespread allegations of government corruption. There must be a genuine effort to implement the government's anti-corruption strategy, enhance the transparency of government operations (especially tax, procurement and expenditure activities), build effective mechanisms for monitoring and auditing and overhaul the anti-corruption commission to ensure its integrity.

The human and financial resources of the joint coordination and monitoring board and the United Nations in Afghanistan must be strengthened. The government's harmonized reporting format should be the basis for donor commitments to providing the government with timely, comprehensive and accurate information on aid flows. Overall, Afghanistan's local and national development priorities, including ANDS, should remain the measure through which donors assess the consistency of aid programmes.

Harmonization requires that pooled funding arrangements be enhanced. However, this poses a dilemma for donors because of the lack of government capacity. Another serious barrier to harmonization is the fact that major donors tend to concentrate funds within the areas of operations of their co-national military units and provincial reconstruction teams rather than channelling funds to the government so they can be distributed throughout the country.

Managing for results means that the lack of reliable data and information must be addressed. However, the international assistance effort is motivated by a variety of international and domestic political and security objectives beyond humanitarian concerns. It may therefore be questioned whether the provision of development assistance is the primary aim of the international community and, thus, whether managing for results is a significant priority.

Mutual accountability should build on the joint coordination and monitoring board. To accomplish this, the government and donors must establish effective watchdog organizations that possess the specialized skills to assess the quality of the information being distributed.