

# Equal to the task:

financing water supply,  
sanitation and hygiene  
for a clean, green and  
healthy Pakistan

August 2020



**WaterAid**



# Acknowledgements

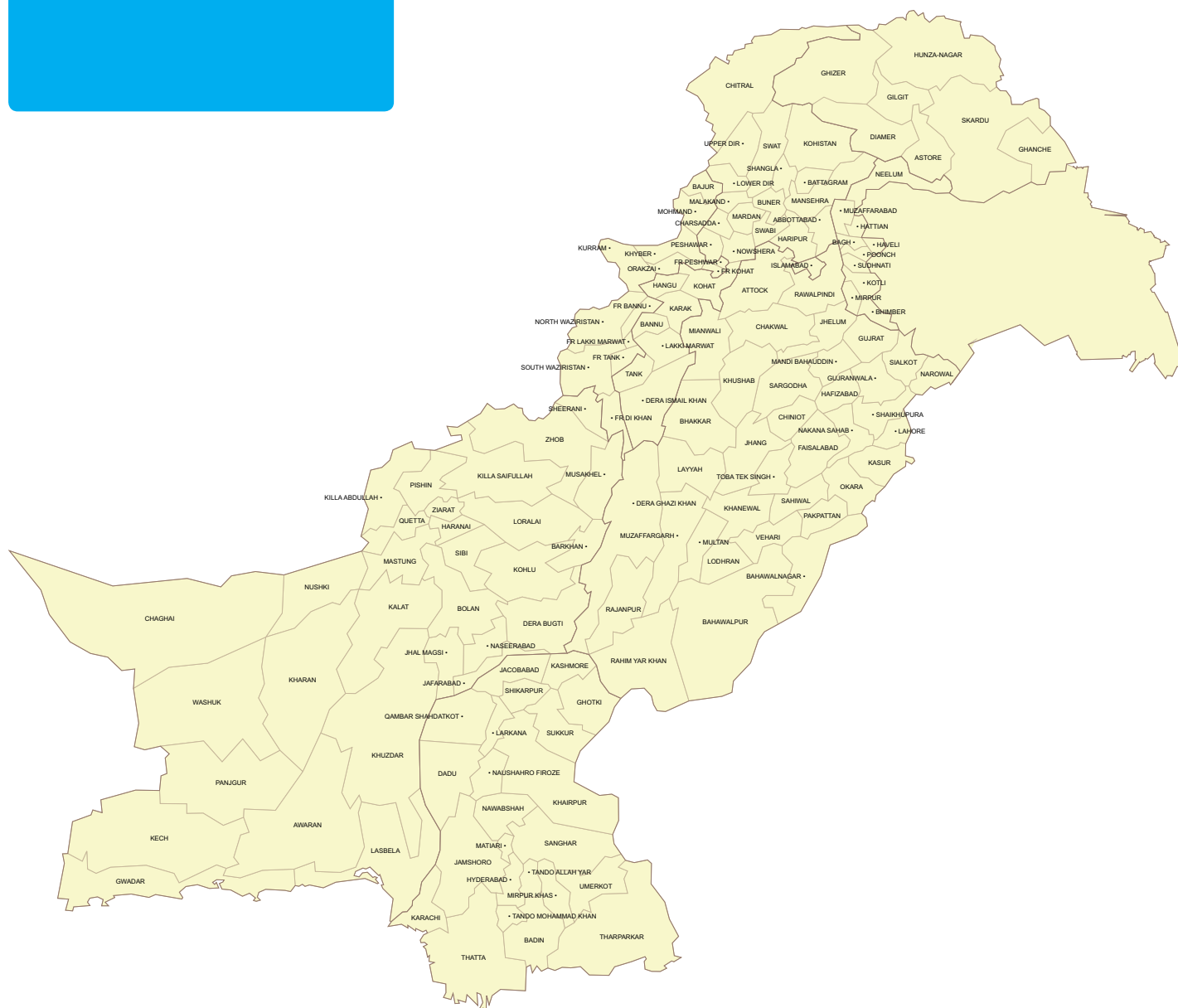
▲ Cover photo:  
A young woman carries  
water in the village of Yaarli,  
Sindh Province, Pakistan.

This is a WaterAid report, based on research and analysis from Development Initiatives.

This report was written by Richard Watts, Dan Walton (Development Initiatives) and Thomas Yeung (WaterAid) with contributions from Nadeem Ahmad, Nitasha Mubashar, Raheema Panhwar and John Garrett and Henry Northover (WaterAid Pakistan and UK).



# Official Map of the Islamic Republic of Pakistan



# Executive Summary



Pakistan faces major challenges ahead in tackling the COVID-19 pandemic and keeping progress on track to end poverty and achieve the Sustainable Development Goals (SDGs). **Equal to the task** is a new report by WaterAid and Development Initiatives, which focuses on the current state of financing of the water, sanitation and hygiene (WASH) sector. It highlights the need for renewed effort and purpose from the Government of Pakistan and the international community to mobilise the resources necessary to tackle the pandemic and deliver universal access to safe water, sanitation and hygiene within a clean and green Pakistan.

The COVID-19 pandemic began to gather momentum in Pakistan in March 2020 with reported cases increasing to over 282,000 by the beginning of August and reported fatalities over 6000.

The Government has responded across several fronts: with a lockdown of the economy on March 23rd, emergency cash payments to poor households through the Ehsaas Emergency Cash Program, addressing Personal and Protective Equipment (PPE) shortages in hospitals, establishing quarantine centres and education and communication campaigns to raise awareness of the essential preventative steps. It has also rolled out a programme of handwashing stations at communal points and in health care facilities and public places. Despite these efforts, the risks remain high for millions of Pakistanis across the country, particularly those who are vulnerable and living in poverty.

The report emphasises the need to mobilise substantial increases in funds for WASH in support of the Government's COVID-19 response and as part of accelerated action to achieve SDG 6. This step change in approach is necessary not just as a response to the pandemic, which requires rigorous and regular handwashing as a key preventative measure, but also to address the steep challenges facing the water sector more broadly. Rivers, lakes, wetlands, and the Indus Delta—are all in rapid decline due to excessive water withdrawals and widespread pollution. Severe groundwater depletion is also evident, particularly in Lahore, Quetta, and parts of southern Punjab.

Progress is not fast enough in delivering the essential services of safe drinking water, sanitation and hygiene. WHO/UNICEF data (2017) estimates that 126 million Pakistanis are without access to safe water, 166 million without safely-managed sanitation, and basic hygiene—a critical need in the current pandemic—is only available to 60% of households. There are also major differences in progress made and challenges ahead across different provinces.

The report estimates the scale of the national financing gap. The total cost of achieving Sustainable Development Goal (SDG) 6 targets 6.1 and 6.2 in Pakistan is estimated at US\$ 12.3 billion a year—with US \$7 billion needed for capital investment (new and replacement infrastructure) and US\$5.3 billion in operations and maintenance. This compares with an annual total WASH budget of only US\$ 1.1 billion (2017), of which the Government provided US\$ 973.4 million.

Before the COVID-19 crisis, the Government had ambitious plans to strengthen domestic resource mobilisation, as part of an Extended Funding Facility (EFF) programme agreed with the International Monetary Fund (IMF). This aimed to increase tax revenue from 15% of GDP to 20% of GDP by 2024. Although this is now a much more difficult challenge, the report urges the Government to sustain efforts over the coming decade to build the fiscal space necessary for investment in basic services for all.

The report recommends a five-fold increase in Government funding to the WASH sector—from federal and provincial governments—with a strong focus on equity and sustainability. Although this is not sufficient to address the financing gap in full, it would represent a serious step towards a level of funding “equal to the task” of addressing the essential WASH components of the Government’s COVID-19 response, achieving progress on SDG 6 and contributing to the aims of the Clean, Green Pakistan Campaign.

The international community also must support the Government in new ways—recognising that combating the pandemic and transitioning to a net zero-carbon future are critical global public goods that justify substantial increases in global financial support. The beginnings of this are in place with support for Pakistan from the IMF in its Rapid Financing Instrument, debt relief from the G20, and a new World Bank programme for disaster resilience and ecosystem restoration. This needs to be supplemented with actual cancellation of debt and substantially increased aid and climate finance in grant form from Pakistan’s cooperating partners.

Other key recommendations include the need for steps to address financial absorption constraints, strengthen coordination between federal, provincial and local institutions and action to address skills gaps.

► To combat the spread of coronavirus, WaterAid Pakistan have installed four handwashing stations at various locations in Muzaffargarh, Punjab, with over 5,000 estimated daily users. COVID-19 response Pakistan, April 2020.



# Section 1. Pakistan country context and sector analysis



## 1.1 Overview of country context, status and challenges

### 1.1.1 Progress over the past two decades, but challenges ahead

Since 2000, when Pakistan adopted the Millennium Development Goals (MDGs), the country has made mixed progress in human development. Ten MDG indicators were achieved, although 24 remained unmet despite progress being made.<sup>1</sup> The prevalence of poverty declined from 34.5% of the population in 2001/02 to 12.4% in 2010/11 and the MDG indicator was met, but key indicators surrounding goals 2 (Universal Primary Education) and 5 (Improving Maternal health) were missed by a large margin. Throughout the period the country suffered multiple shocks and challenges, ranging from extreme environmental events (e.g. floods, earthquakes) to political (security and humanitarian) and economic (balance of payments and debt) crises. In addition, the centralised nature of government was highlighted as a factor in resources not reaching the poorest and most vulnerable in society.<sup>2</sup> A 2019 IMF document reported 45.6% of the population living in multidimensional poverty and 45.0% of children under five suffering from stunting.<sup>3</sup>

With the inception of the Sustainable Development Goals (SDGs) the federal government has taken the necessary steps to localise them within the context of Pakistan's policies and strategies. They are key guiding aspects of the 2025 Vision, the 12th Five Year Plan and the country's annual development planning. In addition, following the 18th Amendment of the Constitution in 2010, which assured greater devolution of powers to the provinces, both provincial and local governments are aligned with achieving national development goals through their own development and master plans. There is a clearer guiding framework and increased localisation to support attainment of the SDGs in comparison with the MDG period, however the challenges faced in achieving the SDGs are no less great. The COVID-19 pandemic began to gather momentum in Pakistan in March 2020 with reported cases increasing to over 217,000 by the beginning of July and reported fatalities over 4,400. There are continuing security concerns and border tensions, a rapidly growing urban population with rising unemployment, and the significant threat posed by climate change, which risks livelihoods, particularly in the more arid areas of the country (such as Balochistan and Sindh).

<sup>1</sup> <http://www.undp.org/content/dam/pakistan/docs/MDGs/MDG2013Report/UNDP-Report13.pdf>

<sup>2</sup> Shafiq-ur-Rehman et al (2014), 'Fiscal Decentralization in Pakistan: 7th NFC Award as Case Study'. Public Policy and Administration Research Vol.4, No.6.

<sup>3</sup> IMF Country Report, Pakistan, July 2019.



These challenges are exacerbated by a decentralisation process that is not fully formed, impacting successful implementation of the development agenda. In many areas, relevant local government activity has been absent or extremely limited. This is exemplified by the water, sanitation and hygiene (WASH) sector.

### 1.1.2 The status of the water, sanitation and hygiene sector in Pakistan

The WASH sector typifies the more general picture of human development in Pakistan. Between 1990 and 2015, access to improved drinking water rose substantially from an estimated 53% of the population to 90%. The water MDG target was missed, but only by a narrow margin. However, over the last decade there has not been significant progress made in percentage terms (see figure 1a). Due to population growth this means that the number of people unserved by improved drinking water increased by five million (from 11.5 million to 16.6 from 2000 to 2015).

Under the current SDG period the targets have been raised from having access to improved (not limited) services to services that are safely managed. Of major concern is the fact that the proportion of the population with access to safely managed drinking water has fallen from 38% in 2000 to 35% in 2017. This is a total of 126 million people. Figure 1c outlines that the main reason for this lack of progress is water contamination, a trend that will need to be reversed if the SDG target 6.1 is to be met. If this is not the case, Pakistan faces the prospect of a further 40 million people without safely managed water in 2030.

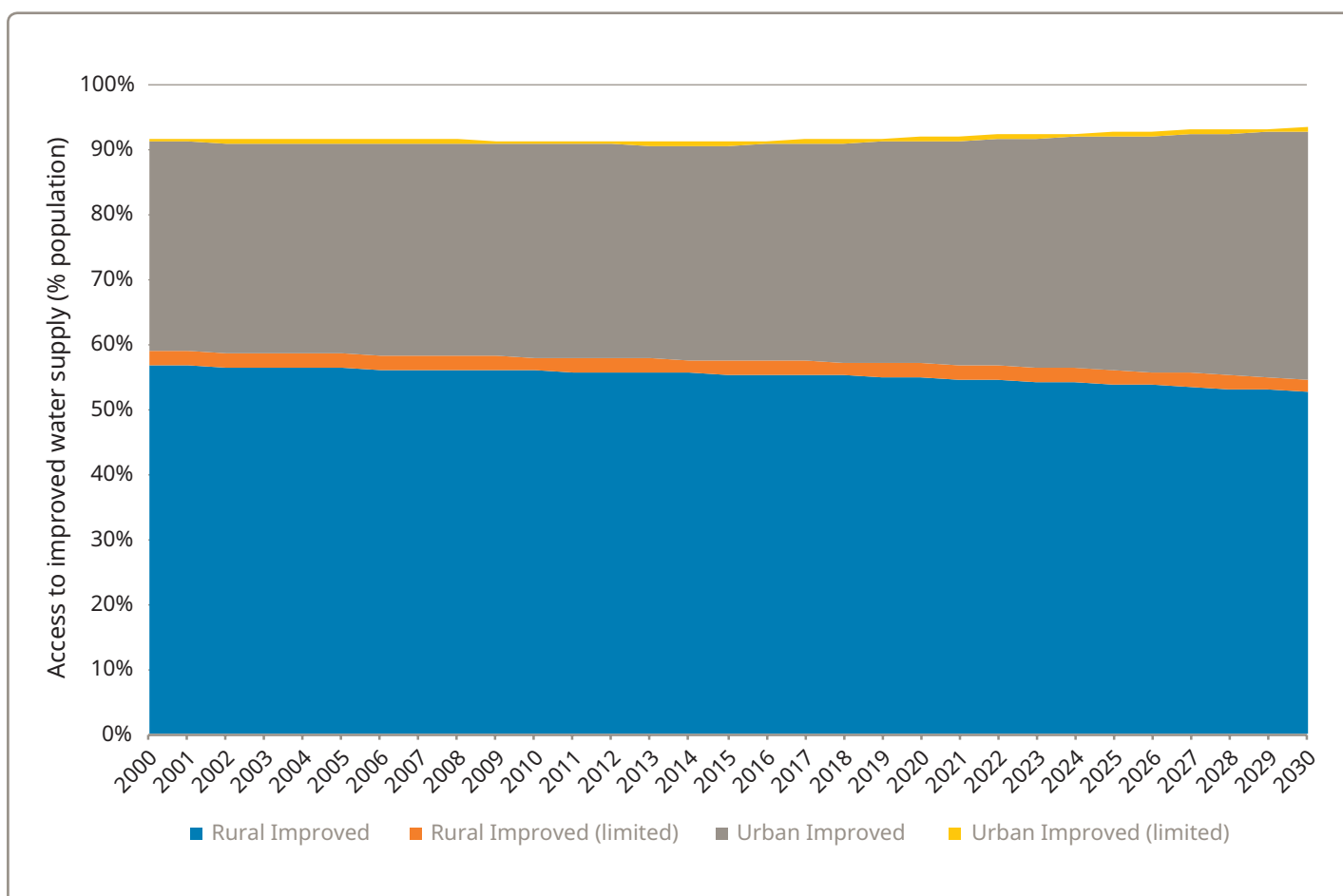
Regarding sanitation, there has been significant growth in the percentage of the population with access to improved facilities. This rose from 36% in 2000 to 66% in 2015 (see Figure 1b). Despite this growth, the level achieved was lower than the 90% targeted under goal 7 of the MDGs.<sup>4</sup> If this rate of progress were to be maintained up to 2030 the country would be close to achieving universal access to improved sanitation, with 81% having access to basic sanitation services (use of an improved facility not shared with other households) and 14% with access to limited services (use of an improved facility shared between two or more households).

Whilst it is not clear what proportion of basic facilities are safely managed, as no national data is available, results from the latest Multiple Indicator Cluster Survey (MICS) for Punjab province estimate that 40.7% of the population uses on-site facilities that are safely managed (shared and non-shared), with a further 9.3% using on-site facilities where excreta is taken for treatment and 24.5% connected to sewerage.<sup>5</sup> Whilst national level data is needed to track the SDG target, the findings from Punjab provide a positive indication of what may be possible in terms of achieving safely managed access nationally.

<sup>4</sup> <http://www.na.gov.pk/mdgs/MDGs-BOOKLET.PDF>

<sup>5</sup> [https://mics-surveys-prod.s3.amazonaws.com/MICS6/South%20Asia/Pakistan%20%28Punjab%29/2017-2018/Survey%20findings/MICS%20SFR\\_Final\\_English.pdf](https://mics-surveys-prod.s3.amazonaws.com/MICS6/South%20Asia/Pakistan%20%28Punjab%29/2017-2018/Survey%20findings/MICS%20SFR_Final_English.pdf)

**Figure 1a** - Percentage of rural and urban populations' access to drinking water services by type (2000 to 2017, estimated up to 2030)<sup>6</sup>

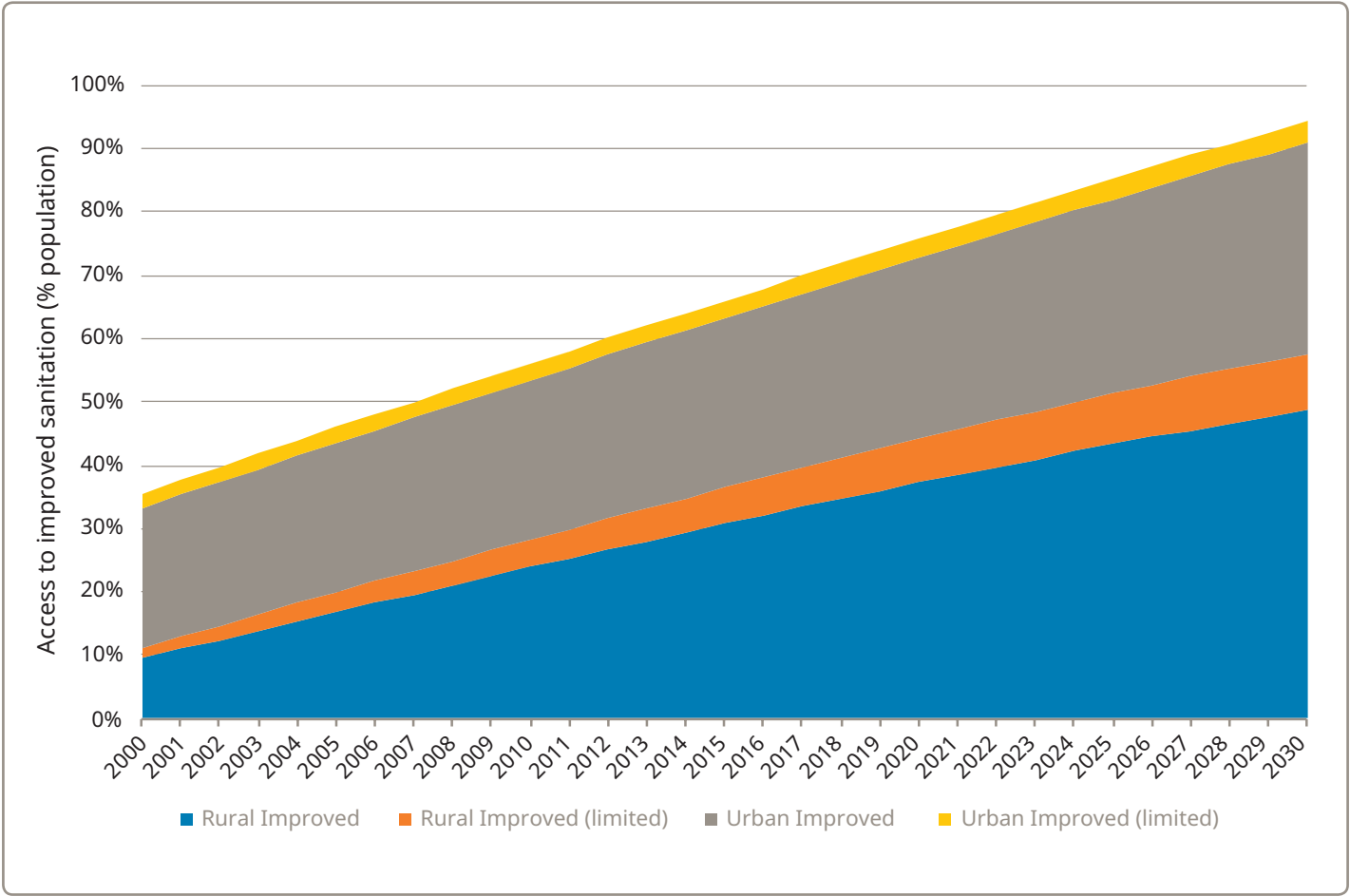


% (number of people, millions)	Unserved by safely managed drinking water (2017)	Unserved by safely managed drinking water (2030)
<b>Urban</b>	60% (43 million)	69% (69 million)
<b>Rural</b>	67% (83 million)	67% (97million)

<sup>6</sup> The population not covered under the six areas either relies on unimproved services (drinking water from unprotected dug wells or unprotected springs) or no service (drinking water directly from a river, dam, lake, pond, stream, canal or irrigation channel).



**Figure 1b** - Percentage of rural and urban populations access to sanitation services by type (2000 to 2017, estimated up to 2030)<sup>7</sup>



% (number of people, millions)	Unserved by safely managed sanitation facilities (2017)	Unserved by safely managed sanitation facilities (2030)
Urban	No data	No data
Rural	No data	No data



<sup>7</sup> The population not covered under the six areas either relies on unimproved services (use of pit latrines without a slab or platform, hanging latrines and bucket latrines) or open defecation (disposal of human faeces in fields, forest, bushes, open bodies of water, beaches or other open spaces or with solid waste).

**Figure 1c** - Percentage of rural and urban populations access to improved drinking water and sanitation facilities, by safely managed criteria (2010 and 2017)

Location	Sanitation	2010	2017	Location	Water	2010	2017
<b>Rural</b>	Disposed of in situ	No data	No data	<b>Rural</b>	Accessible on premises	77%	76%
	Emptied and treated				Available when needed	No data	No data
	Wastewater treated				Free from contamination	32%	33%
	<b>Safely managed sum</b>				<b>Safely managed (lowest value)</b>	<b>32%</b>	<b>33%</b>
<b>Urban</b>	Disposed of in situ	No data	No data	<b>Urban</b>	Accessible on premises	87%	81%
	Emptied and treated				Available when needed	No data	No data
	Wastewater treated				Free from contamination	45%	40%
	<b>Safely managed sum</b>				<b>Safely managed (lowest value)</b>	45%	40%
<b>National</b>	Disposed of in situ	No data	No data	<b>National</b>	Accessible on premises	80%	77%
	Emptied and treated				Available when needed	No data	No data
	Wastewater treated				Free from contamination	37%	35%
	<b>Safely managed sum</b>				<b>Safely managed (lowest value urban &amp; rural combined)</b>	37%	35%

Source: WHO/UNICEF JMP

Notes: Area chart represents total percent of populations access to improved water and sanitation, disaggregated by rural and urban and whether facility is limited or not. The grey area in the charts represents the estimated projection from 2015 to 2030 based on trend from 2000 to 2015 and urban and rural population projections up to 2030.

Basic hygiene is another area where significant progress is needed to ensure universal access by 2030. The latest estimate from the Joint Monitoring Programme (JMP) 2017 shows that basic hygiene is available to only 60% of households, with rural areas (45%) behind urban (83%), highlighting as with water and sanitation a key focus needs to be on improving provision in rural areas. The COVID-19 pandemic, for which handwashing and good hygiene are essential preventative measures, underscores the need for rapid improvements in these areas.

In addition to households, there is also a significant challenge in delivering water and sanitation services in schools. Currently only 57% of school children have access to improved drinking water facilities. Also 28% of school children (16 million) have no access to an improved sanitation facility.<sup>8</sup>

To advance progress towards achieving universal access to WASH, the federal government's Vision 2025 has integrated SDG 6 and the indicators under it. However, the Vision document does not outline any specific milestones between now and 2030 and the latest available Five-Year Development Plan<sup>9</sup> does not specify goals within it either. After the General Election in 2018, the government formulated WASH targets on the basis of Joint Sector Review (JSRs) and announced its commitment to achieving SDG targets 6.1 and 6.2. Moreover, the Prime Minister and new government launched a major countrywide environmental campaign in October 2018, called the Clean, Green Pakistan Movement. The Clean, Green Pakistan strategy was developed by the Ministry of Climate Change and includes actions in seven priority areas related to the environment. These are (a) increasing forest plantations, including in and around urban areas; (b) waste management, including industrial, liquid, and hospital as well as domestic waste; (c) safe sanitation, including making Pakistan Open Defecation Free by 2023; (d) improving hygiene, in particular relating to the food and the environment; (e) air pollution control; (f) safe drinking water; and (g) clean oceans and coasts.<sup>10</sup>

### 1.1.3 Inequalities in access

There are major inequalities in access to water and sanitation in Pakistan: by province, by rural and urban areas, by gender, disability, income and wealth. These inequalities also require focus and attention if the country's desired goals are to be met. Figure 2 shows the provincial level variation of access to in house water taps and motorised pumps for water supply and access to toilets (flush and non-flush) for sanitation purposes. Although these definitions are different from global SDG reporting, they nevertheless illustrate the wide variations between provinces. Across all provinces progress has been made from 2004/05 to 2014/15, however in Balochistan and Sindh access to piped or motorised hand pump water supply remains significantly lower than in Sindh Khyber Pakhtunkhwa and Punjab.



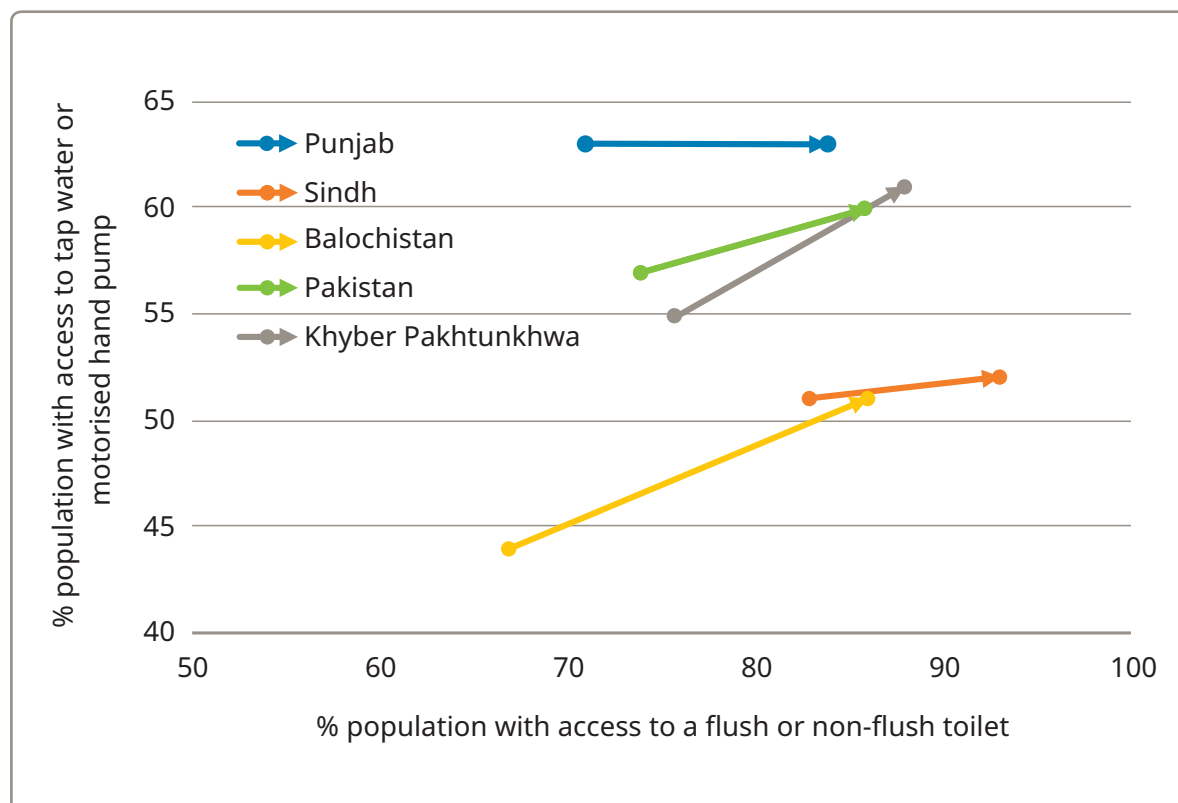
<sup>8</sup> 2018 Joint Monitoring Programme schools database.

<sup>9</sup> Currently the 11th Five Year Plan is published, although the 12th plan is in development and is likely to have more focus on WASH.

<sup>10</sup> Opportunities for a Clean and Green Pakistan, World Bank, 2019.



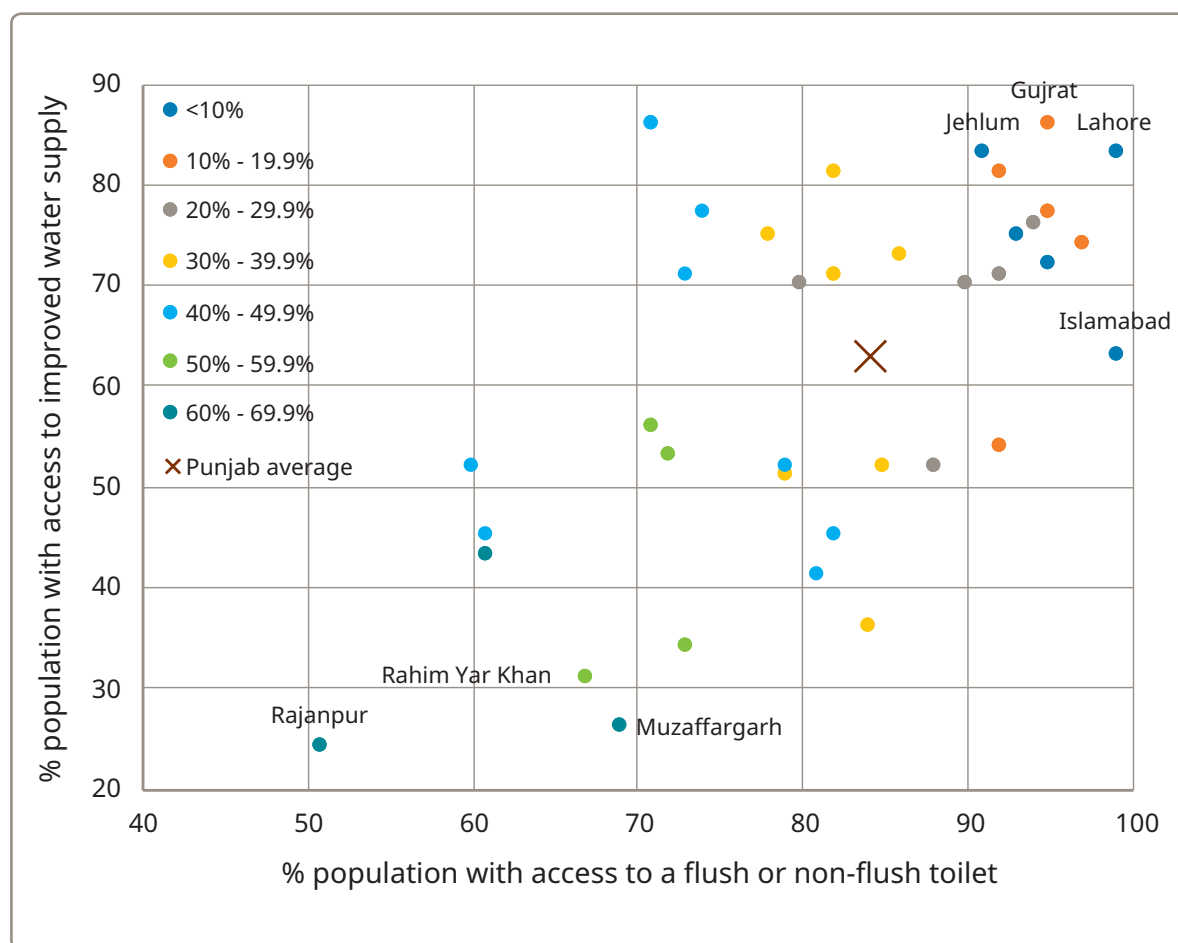
**Figure 2** - Percentage of population with access to certain improved water and sanitation facilities, 2004/05 to 2014/15, by province



In addition to differences in access between provinces, there is also a wide variation in access in districts within provinces themselves. For example, Figure 3 shows in the case of Punjab province, where water and sanitation facility access in 2014/15 was similar to the national average, there is a noteworthy variation. The gap between Rajanpur and Lahore district is stark, with a difference of 59% for water supply and 48% for sanitation. Whilst there may be various reasons for the differences, there is a clear link between the proportion of people that are multi-dimensionally poor and the access to certain improved types of WASH facilities.<sup>11</sup>

<sup>11</sup> This is also a finding of the World Bank, see When Water Becomes a Hazard, <http://documents.worldbank.org/curated/en/649341541535842288/pdf/131860-WP-P150794-PakistanWASHPovertyDiagnostic.pdf>

**Figure 3** - Percentage of population with access to water and sanitation facilities in Punjab province, by district and in relation to multi-dimensional poverty scores<sup>12</sup>



Source: PAKISTAN SOCIAL AND LIVING STANDARDS MEASUREMENT SURVEY (2014-15); Multidimensional-Poverty-in-Pakistan, federal Ministry of Planning.

In respect to hygiene, the MICS for Punjab<sup>13</sup> (2018) and Sindh<sup>14</sup> (2014) highlight the variation in access, with significant differences between the poorest and richest households (86.1% and 99.4% in Punjab, 55.3% and 87.3% in Sindh). In addition, although these and the national estimates were carried out at different times with differing methods, the variation between them highlights the potential distinct geographic variance in access to basic hygiene.

These inequalities show that there is a significant challenge with equity of access in Pakistan, meaning progress towards universal household access will be dependent on meeting the needs of specific populations, in particular the poor and most vulnerable.

<sup>12</sup> Colour coding shows the percentage of the population which is multidimensionally poor.

<sup>13</sup> <https://washdata.org/sites/default/files/documents/reports/2019-05/Pakistan%20Punjab%20MICS%202018.pdf>

<sup>14</sup> <http://sindhbos.gov.pk/wp-content/uploads/2014/09/01-Sindh-MICS-2014-Final-Report.pdf>

## 1.2 Institutional structure and key actors

### 1.2.1. Organisation structure of WASH delivery

Following the 18th Amendment of the Constitution, there has been considerable devolution of the responsibilities for delivering WASH services from the federal government to provincial and local governments. It is now provincial governments which have overall responsibility for delivery, although local governments can play a significant role.<sup>15</sup> This depends on their type and the responsibilities devolved to them as laid out in local government acts within the various provinces. The differing forms of WASH delivery structures in the different provinces make it hard to provide a definitive and fully accurate national diagrammatic representation. Nevertheless, Figure 4 outlines a simplified picture of the major WASH actors in Pakistan, key institutions within the three tiers of government, their responsibilities and the guiding policies, strategies, law and plans that shape their work.

▼ A young boy removing plastic bag from an open sewage in a street in Allah Rakhio Goth, UC4 Gudab town, Karachi, Sindh province, Pakistan, April 2015.

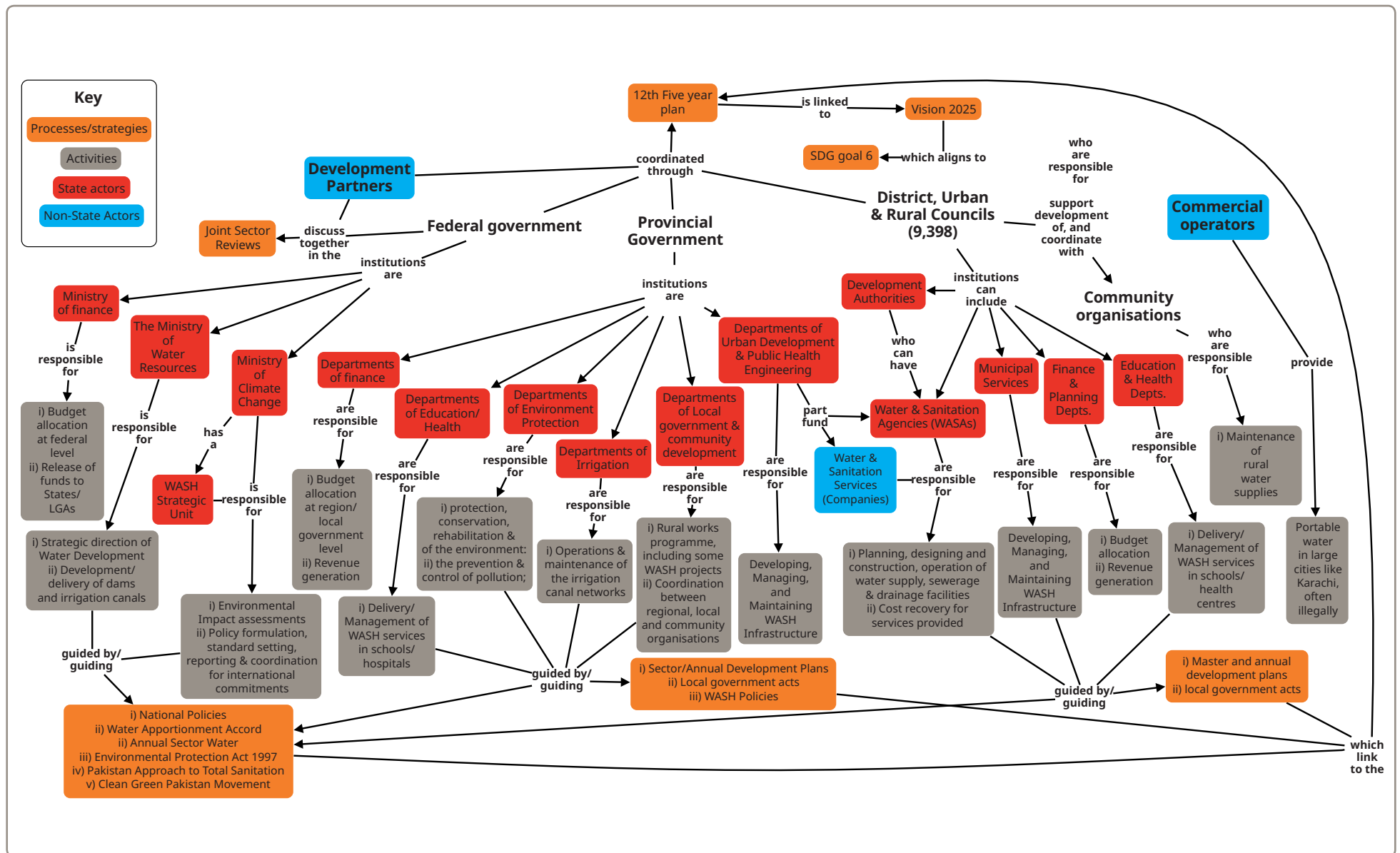


WaterAid/ Asad Zaidi

<sup>15</sup> There are 129 district councils across the four provinces, 619 urban councils made up of one city district, four metropolitan corporations, 13 municipal corporations, 96 municipal committees, 148 town councils, 360 urban union committees, and 1,925 rural councils. Additionally there are 3339 neighbourhood, 'tehsil' and village councils in Khyber Pakhtunkhwa. See: [clgf.org.uk](http://clgf.org.uk)



**Figure 4 - WASH sector actors and responsibilities in Pakistan**



At the federal government level, although ministries do not have responsibility for direct service delivery of WASH, there are several which remain of central importance, in particular the Ministry of Finance, the Ministry of Water Resources and the Ministry of Climate Change. The Ministry of Water Resources provides the overall strategy and policy setting for water resources in the country and is the custodian of the National Water Policy 2018. It is also responsible for infrastructure projects, which transcend provincial boundaries, such as dams and irrigation canals. The clear majority of drinking water is extracted from the ground and with the increased use of irrigation canals for drinking water in locations where ground water has become saline, the Ministry's role is highly relevant to WASH. The Ministry of Climate Change (MOCC) is responsible for environmental protection laws for preventing the pollution of water supplies. It also led the development of the strategy for a Clean and Green Pakistan. In addition, the recently created WASH Strategic Unit has responsibility for standard setting (including drafting new guidelines for provinces) and the coordination and reporting against international committed targets.<sup>16</sup>

The Prime Minister of Pakistan and the Ministry for National Health Services are leading the Government's response to the COVID-19 pandemic. This involves collaboration with the MOCC and provincial governments on the WASH-related aspects of the policy response.

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The Government has responded across several fronts: with a lockdown of the economy on March 23rd, emergency cash payments to poor households through the Ehsaas Emergency Cash programme, addressing Personal and Protective Equipment (PPE) shortages in hospitals, establishing quarantine centres and education and communication campaigns to raise awareness of the essential preventative steps. It has also rolled out a programme of handwashing stations at communal points and in health care facilities and public places. The COVID-19 Pakistan Preparedness and Response Plan (PPRP) set out the international assistance required by the government. It is aligned with the Pakistan National Action Plan and coordinates international support via the Ministry of Foreign Affairs (MoFA), the Ministry of Health Services, Regulations and Coordination (M/O NHSRC), National Disaster Management Authority (NDMA) and Provincial Departments of Health and Provincial Disaster Management Authorities (PDMAs). The Plan was prepared with the support of the UN and the WHO's Strategic Preparedness and Response Plan (SPRP). Despite these efforts, the risks remain high for millions of Pakistanis across the country, particularly those who are vulnerable and living in poverty. Box 1 sets out the main WASH-related actions taken as at the end of June 2020.

The Prime Minister of Pakistan has also been a key champion of the water resource management and WASH-relevant sectors. He launched both the 'donate for dams' (see Section 4) and the 'Clean and Green Pakistan' Movement.<sup>17</sup> The Government plans to allocate 1% of total government Public Sector Development Programme (PSDP) expenditure to the Clean and Green Pakistan campaign.<sup>18</sup> In addition,

<sup>16</sup> The unit was created after there was a recognition following decentralization there was no country level oversight of the sector. See SWA webinar: Sector strengthening in Pakistan, November 2017.

<sup>17</sup> <https://www.dawn.com/news/1438760>

<sup>18</sup> <https://tribune.com.pk/story/1968767/2-govt-spend-1-psdp-green-programme/>

the Ministry of Planning, Development and Special Initiatives is central to overall development planning in the country and the Ministry of Finance for the raising of domestic public resources and the disbursement of funds to lower tiers of government, through the 7th National Finance Commission (NFC) Award. Despite the decentralisation process, the federal government maintains responsibility for the bulk of taxation, which is shared under the 7th NFC, and non-tax revenue collection, which is not shared.



#### **Box 1: Hygiene and WASH -related aspects to the COVID-19 response**

- Regular WASH Sector Working Group meetings are held at national, provincial and ICT level. This includes 76 partners reporting on 4W Matrix.
- WASH Sector Preparedness and Response plan to combat Covid-19 has been prepared on 23rd April 2020 and being reviewed by MoCC and provincial government.
- A total of 61 million people have been reached through TV & radio till to date.
- Over 2.9 million at risk populations reached through community engagement on COVID-19 (UNICEF reached 2 million) with an additional 0.3 million reached (UNICEF 0.2 million) over the reporting period.
- 64,630 religious leaders including 23,356 through UNICEF (243 new) have been engaged and mobilised to promote social distancing, encourage praying at home and to promote key messages on COVID-19.
- Using WASH communication networks over 2.9 million people (1.3 million new) have been reached with COVID-19 hygiene promotion messages
- A total of 1009 hand washing stations have been installed at communal points enabling around 1.28 million people to wash their hands with clean running water and soap.
- 1,046,530 people have benefitted from WASH facilities installed in 454 Health Care Facilities.
- Total 24, 440 PPE's were distributed among 21, 738 Health physicians and 2,603 in Sanitary workers.

At the provincial government level, there are many departments that provide similar functions to those outlined above for the federal government. These include, for example, Departments of Irrigation (Dams/Canal development), Departments of Environment (environmental sanitation) and Departments of Finance and Planning. Given provincial governments' overall responsibility for WASH services, they also have Departments of Urban Development and Public Health Engineering. These are primarily responsible for overall planning and strategic frameworks for WASH, as well as capital investment in infrastructure. In addition, Departments of Health and Education have responsibility for the development of WASH services within their institutions. In Punjab and Sindh, Departments of Public Health Engineering (PHEDs) have developed WASH Sector Development plans until the year 2026. Departments of Local Government also develop WASH programmes and provide coordination with lower tiers of government and community groups. This is mainly in rural areas.



Provincial governments also have powers to raise revenue. These include taxes on real estate and agriculture. Taxes raised at provincial level accounted for 20% of total government revenue collected in 2016/17.<sup>19</sup> Intergovernmental transfers from the federal Government are largely unconditional, leaving provinces responsible in deciding final sectoral allocations.

Regarding local government, the highest tiers are district councils in rural areas and either city districts or municipal/metropolitan corporations in predominantly urban areas. They have key responsibilities for the provision of education and health services alongside the role of provincial governments. Local governments are therefore involved in ensuring the development, implementation and maintenance of WASH facilities within their education and health institutions. Within urban areas, city districts and municipal corporations are primarily responsible for planning, implementation and maintenance of WASH facilities. They have the power to recover costs through setting water rates. In major cities, such as Karachi, Lahore, Peshawar and Rawalpindi, specific Water and Sanitation Agencies (WASAs) or companies have been created to fulfil parts of these activities.<sup>20</sup> Under city districts and municipal corporations are municipal committees, which are mandated to provide, manage and operate WASH facilities. Delivery is through offices of municipal services. Within rural contexts, district councils support union councils, which are the tier below them, in providing, operating and managing WASH facilities. Local governments in Pakistan also work closely with community organisations, which are given responsibility over day-to-day management of public WASH facilities.

Development Partners play a key role in supporting the entire institutional structure. For example, they have supported WASH planning and strategy through the development of the Pakistan Approach to Total Sanitation (PATS). They provide on-budget funding for specific WASH infrastructure projects and provide capacity building to local governments and community organisations to assist in delivering their mandates. Examples of capacity building include the World Bank's Cities and Governance Improvement Project and the Government of Japan's support for a training academy in Punjab to improve the capability of five WASAs.<sup>21</sup> UNICEF has also played a key role in institutionalising Joint Sector Reviews (JSR), which have become a key dialogue mechanism between state and non-state actors.

Commercial operators also supply water in large cities to households that do not have piped supplies. These operators are often illegal, however. For example, in Karachi private water operators are reported to have siphoned off government-supplied water and used polluted water from dug wells as a source.<sup>22</sup> Although the national policy framework endorses private sector involvement in the provision of basic services, in practice the lack of a strong regulatory framework and enabling environment in the WASH sector acts as a constraining factor.<sup>23</sup>

<sup>19</sup> 2017 Article IV Staff Report, International Monetary Fund. <https://www.imf.org/en/Publications/CR/Issues/2017/07/13/Pakistan-2017-Article-IV-Consultation-Press-Release-Staff-Report-Informational-Annex-and-45078>

<sup>20</sup> The WASA in Quetta is under the Provincial government.

<sup>21</sup> [http://open\\_jicareport.jica.go.jp/pdf/12308334\\_01.pdf](http://open_jicareport.jica.go.jp/pdf/12308334_01.pdf)

<sup>22</sup> <https://www.npr.org/sections/goatsandsoda/2018/09/10/645525392/for-karachis-water-mafia-stolen-h2o-is-a-lucrative-business?t=1558525373716>

<sup>23</sup> <http://documents.worldbank.org/curated/en/649341541535842288/pdf/131860-WP-P150794-PakistanWASHPovertyDiagnostic.pdf>

## 1.2.2 Key challenges facing the sector

There have been several identified issues and challenges within the WASH sector. Although in many cases they interlink, they can be categorised into the areas of water resources, institutional structure and management, capability challenges and the enabling environment:

### i) Water Resources

**Rivers, lakes, wetlands, and the Indus Delta** – are all in rapid decline due to excessive water withdrawals and widespread pollution.<sup>24</sup> Severe groundwater depletion is also evident, particularly in Lahore, Quetta, and parts of southern Punjab. Scarcity in water availability is impacting the government's ability to provide functioning WASH services with sufficiency and quality of supply.<sup>25</sup>

**Effective water resource management is undermined** by (i) poor water data, information, and analysis; (ii) weak processes for water resources planning, allocation and regulation; (iii) environmentally unsustainable levels of water withdrawal; (iv) widespread pollution; and (v) low water productivity in agriculture.<sup>26</sup>

**Pressure on water resources will increase for several decades.** Pakistan's population is expected to exceed 300 million by 2047 (from 207.8 million in 2017), leading to much higher water demand—and resulting pollution—from households, agriculture and industry. With temperature increases as a result of climate change, water demand could increase by nearly 60 percent.<sup>27</sup>

### ii) Institutional structure and management

**Lack of country-wide oversight and guidance** – Legal frameworks for water are seen as inadequate at federal and provincial levels, policy frameworks as incomplete and policy implementation inadequate. Many of the problems relate to unclear institutional mandates, and a lack of capacity in water institutions.<sup>28</sup> Although the federal government's WASH coordination unit has been established, there remains a gap in terms of the guidelines and oversight to support the development of the sector.

**Overlap in responsibilities between government tiers** – responsibility for the WASH sector as outlined in the legislative framework overlaps between provincial and the first two tiers of local government. This can lead to a lack of clarity around who is responsible for developing, delivering, managing and operating facilities.<sup>29</sup>

**Issues with coordination between government tiers** – in combination with an overlapping of responsibilities, dialogue and coordination has been an issue between government tiers. For example, as noted above, there are differences in the extent of coordination between national strategic plans and those at the provincial level, including alignment to the SDG targets.

<sup>24</sup> The impact of river fragmentation by infrastructure and changed sediment regimes also contribute.

<sup>25</sup> This is explored in detail within the 2018 national water policy

<sup>26</sup> Pakistan, Getting More from Water, World Bank 2019.

<sup>27</sup> World Bank, 2019. Similarly, a recent UNDP study highlighted that there are large knowledge gaps on how climate change would impact supplies and that it was essential to reduce demand: <https://www.undp.org/content/dam/pakistan/docs/Environment%20&%20Climate%20Change/Report.pdf>

<sup>28</sup> World Bank, 2019.

<sup>29</sup> Outlined in Pakistan's briefing to the 2019 Sanitation and Water for All Sector Ministers' Meeting

### iii) Capability challenges

**Staff capacity issues** – within provincial and local governments there is seen to be an issue with capabilities and productivity of staff, to carry out mandates for delivering services and for cost recovery.<sup>30</sup> This is also impacting the utilisation rates of allocated spending (see Section 2.2.2).

**Challenges with monitoring and evaluation** – the issues of human resources and coordination detailed above have led to less effective monitoring and evaluation systems to track progress in both project implementation and progress against WASH targets. The challenge is highlighted by the SDG tracking framework's inability to track many WASH indicators.<sup>31</sup> Although the federal government integrated some WASH questions within the 2017 census, continuous data collection by local governments has proven a major challenge.

### iv) Enabling environment

**Lack of community capabilities and will to support the maintenance of WASH services** - Community based organisations (CBOs) play an important role in minor maintenance and functioning of WASH facilities. However, in some cases a lack of commitment to manage facilities by communities and low capability to carry out minor maintenance has led to a substandard level of functioning services in certain areas.<sup>32</sup>

**Challenges with the public financial management structure** – The structure outlined in the Constitution and framed within the 7TH NFC has led to a number of challenges. For example, provincial governments have maintained that the federal government is taking more than its permitted share and that the formula used is not fair. Also, as the federal government collects the majority of government revenue, it is argued that there is less incentive to raise increased amounts of tax for basic services such as WASH, as they are not directly responsible for delivery.<sup>33</sup>

**Rising cost of electricity** – Severe power outages have been a recurring problem for Pakistan, linked to the deficits in the availability of natural gas. The federal government has sought to improve the situation by relying increasingly on oil-based generation.<sup>34</sup> The reliance on oil imports led to an increase in the cost of electricity across the country with an impact on the finance of water boards and agencies. For example, the Karachi Water Supply and Sewage Board electricity costs almost doubled from 2010-11 to 2014-15<sup>35</sup> and the Faisalabad Water and Sanitation Agency budgeted expenditure for electricity increased by 33% in 2018/19 compared to 2017/18.<sup>36</sup> Lower oil prices in the context of COVID-19 are likely at least to mitigate these price impacts on utilities.



<sup>30</sup> [https://www.sdg-pakistan.pk/uploads/pub/Data\\_Gap\\_Report\\_Report\\_Version\\_5.pdf](https://www.sdg-pakistan.pk/uploads/pub/Data_Gap_Report_Report_Version_5.pdf)

<sup>31</sup> Ibid.

<sup>32</sup> For example, the Balochistan Joint Sector Review outlined that the approach to entrust small scale water and sanitation schemes to CBOs "has not yielded the desired results and a large number of water supply schemes in Balochistan became non-functional over the period of time".

<sup>33</sup> A useful overview of these issues is available here

<sup>34</sup> <https://openknowledge.worldbank.org/bitstream/handle/10986/30923/9781464811548.pdf?sequence=8>

<sup>35</sup> <https://openknowledge.worldbank.org/bitstream/handle/10986/29376/9781464812118.pdf?sequence=2&isAllowed=y>

<sup>36</sup> <http://wasafaisalabad.gop.pk/assets/uploads/Documents/6/Budget%202018-19.pdf>

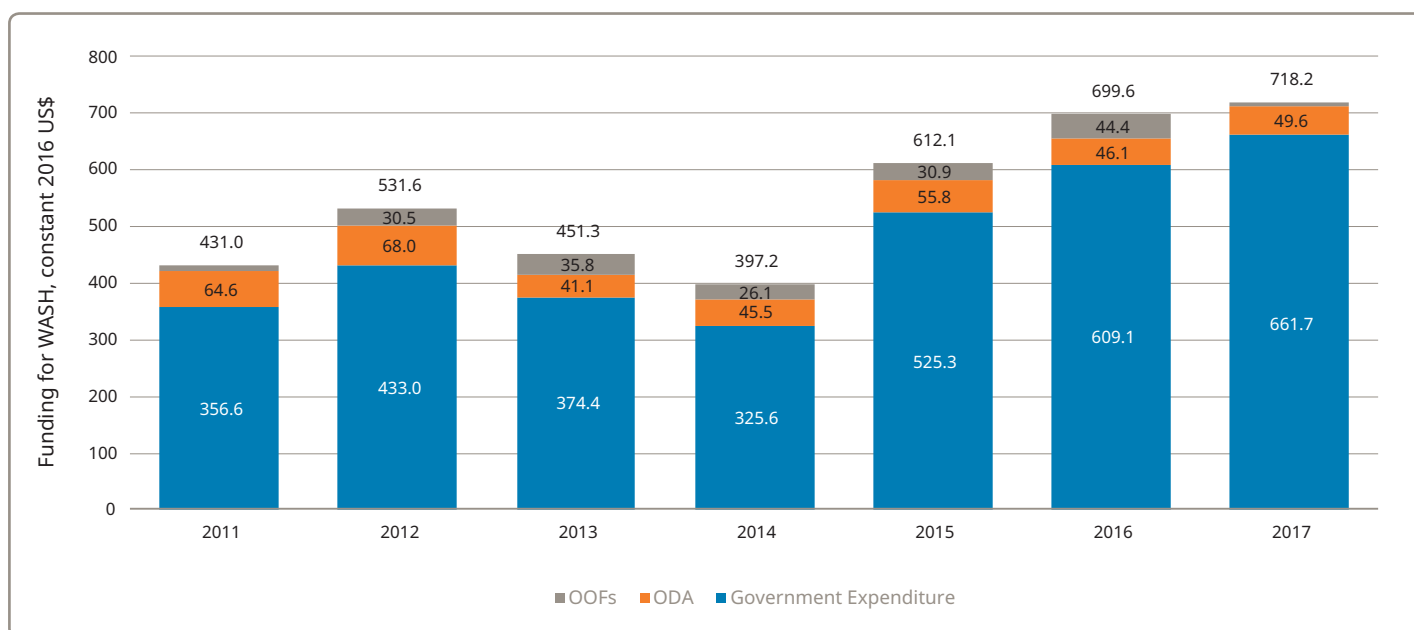


## Section 2. Overview of WASH sector financing

### 2.1 Overall picture of WASH financing

Public financing for WASH in Pakistan is primarily sourced from a mix of domestic public resources and Official Development Assistance (ODA) or aid, and to a smaller extent Other Official Financing (OOFs). As shown by Figure 5, funding has significantly increased since 2015. This is mainly as a result of increased government expenditure, which rose in real terms from US\$ 326 million in 2014 to US\$ 662 million in 2017.

**Figure 5** - Pestimate of the current status of WASH financing in Pakistan, 2011 to 2017



Source: OECD CRS database, PRSP Annual Progress Reports 2011/12 to 2016/17, Ministry of Finance Pakistan

Notes: Government expenditure will include some ODA, so there will be an element of double counting. Therefore, the figures should be treated as an estimate of the total funding for WASH

The UN Water 2019 Global Analysis and Assessment of Drinking Water and Sanitation (GLAAS) report indicated that the increase in funding from the Government continued in 2018. The Government's WASH budget rose to US\$ 973.4 million, an increase of 42.5% compared with 2017. The GLAAS report also indicates that household expenditure was US\$ 331.7 million in 2017, 0.29% of the total US\$1.134 billion estimated national expenditure on WASH.<sup>37</sup>

This section looks at government and donor resource flows in detail, before reviewing whether other development finance sources are also contributing to funding the WASH sector.

## 2.2 Government financing

### 2.2.1 Increases in government financing of the sector

Since 2000 the Pakistan economy has seen solid growth in almost every year. It has remained resilient even in the face of challenges to the wider prevailing global economy, security issues, the humanitarian crisis related to neighbouring Afghanistan, and environmental disasters. As a result of this economic growth, general government revenue increased in real terms from US\$ 18 billion in 2000 to US\$46 billion in 2017. Since 2016 economic growth has risen to over 5% per year driven by sustained growth in the agriculture, construction and manufacturing sectors and increased inward investment, aided by the China-Pakistan Economic Corridor. In addition, government revenue as a proportion of economic output grew from 12.6% of Gross Domestic Product (GDP) in 2011 to 15.2% in 2018. This provided the government with additional fiscal space, with revenue growing to an estimated US\$ 47.8 billion in 2018.<sup>38</sup> Due to the increased domestic public resources and increase in allocation to the WASH sector, funding grew in real terms from US\$ 326 million in 2013/14 to US\$ 662 million in 2016/17 (Figure 6). The Government budget to the WASH sector rose again in 2018 to US\$ 973.4 million.

Despite this growth in monetary terms, expenditure on WASH as a proportion of total government expenditure and GDP has remained relatively constant, increasing slightly since 2015 to 1% of spending and 0.2% of GDP respectively.<sup>39</sup> Pakistan's Poverty Reduction and Strategy Papers (PRSP) show that this is a similar picture to other sectors relevant to poverty reduction, such as agriculture and education, although the government has proportionally increased funding to the health sector. Roads, highways and bridges increased from 1.9% of spending in 2013/14 to 7.7% in 2016/17, in line with the government's Vision 2025 goal of becoming a hub and corridor for regional trade.

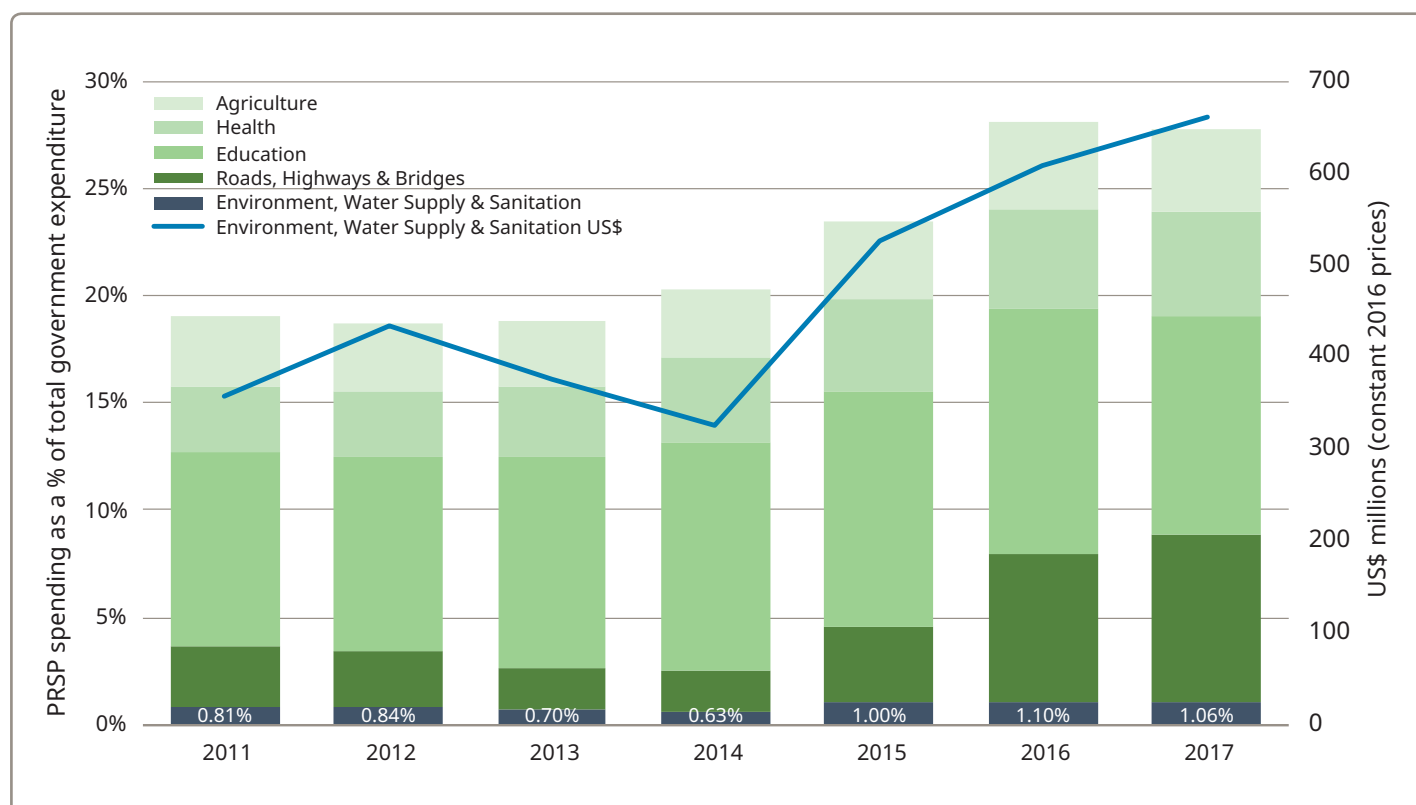


<sup>37</sup> GLAAS 2019, Annex vii

<sup>38</sup> Data from International Monetary Fund, World Economic Outlook, October 2019.

<sup>39</sup> See the government's 2018 briefing to the Sanitation Water for All (SWA) Partnership reported that in 2018 spending was also 0.2% of GDP.

**Figure 6** - PRSP Budgetary Expenditures for water, sanitation & environment and other key social sectors



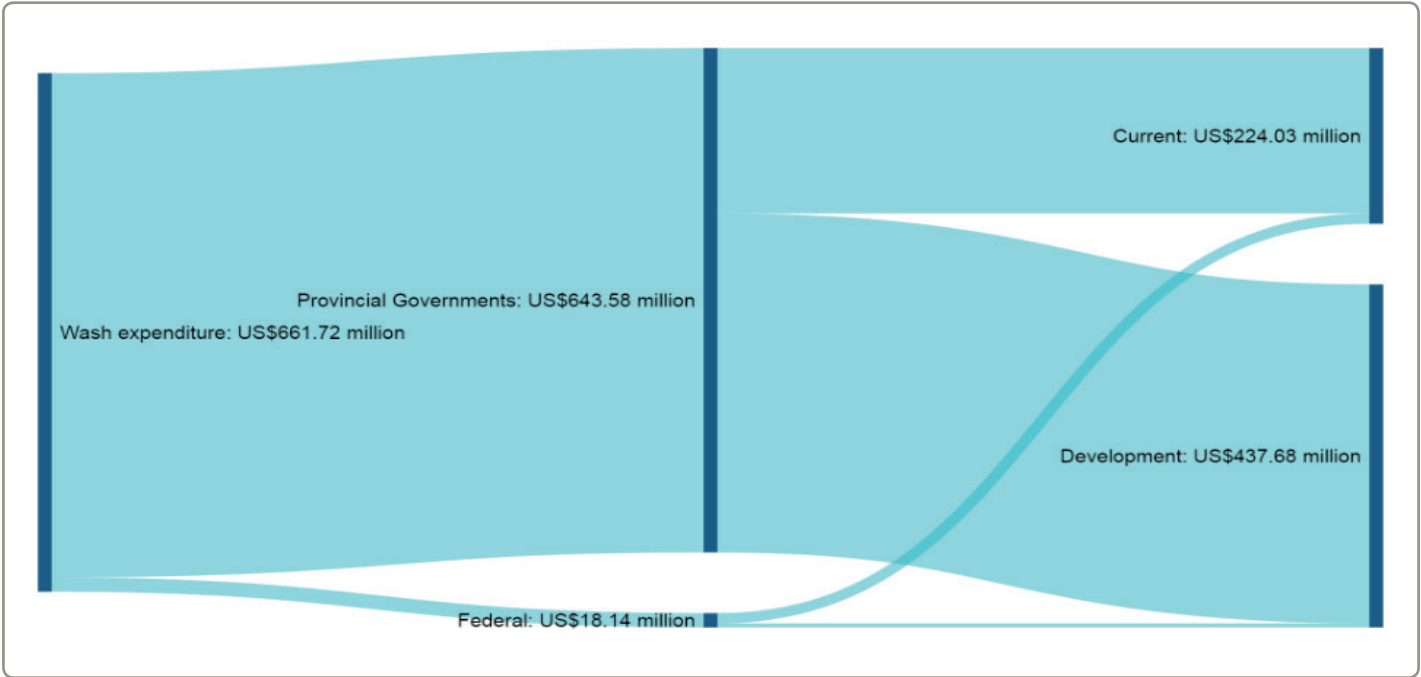
Source: PRSP Budgetary Expenditure of FY reports for years 2010-2011 to 2016-17, IMF WEO.

Notes: Year corresponds to end of financial year.

Regarding the composition of government spending, provincial governments accounted for almost all of the WASH budget. Figure 7 shows data for 2016/17 with provincial governments accounting for 97% of total funding and the Federal government 3%. The low levels of funding by the Federal Government highlight the scale of devolvement of responsibilities and fiscal decentralisation in the WASH sector following the change to the Constitution. There is also potentially significant funding from local governments (see Section 2.2.2), although the full extent of this is unclear. Figure 7 also outlines that provincial governments have a key role in disbursing both capital and recurrent funds: the former for development projects, and the latter to meet staffing and other recurrent costs.



**Figure 7** - 2016/17 Government funding to water, sanitation and the environment, by level of government and economic type



Source: PRSP Budgetary Expenditure of FY 2015-16 and FY 2016-17

The tables below set out the PRSP data for financial years 2017-18 and 2018-19. They show how the majority of development spending is carried out by the provinces, how this varies significantly between provinces and can change from year to year. Total allocations fell by over 32 billion rupees between FY2017-18 and FY 2018-19. There is more detailed analysis of subnational spending in Section 2.2.2.



◀ **Fatima, 13, washing her hands at the school’s outdoor washing facilities, Lahore, Pakistan, May 2020.**



**Figure 8** - PRSP Budgetary Expenditures of FY 2017-18 and FY 2018-19

**Environment/Water Supply and Sanitation, FY 2017-18, millions of rupees**

	Federal	Punjab	Sindh	KPK	Balochistan	Total
<b>Current</b>	1,167	9,496	1,746	4,898	7,297	24,602
<b>Development</b>	608	36,838	5,078	4,941	5,865	53,330
<b>Total</b>	1,775	46,334	6,824	9,839	13,160	77,932

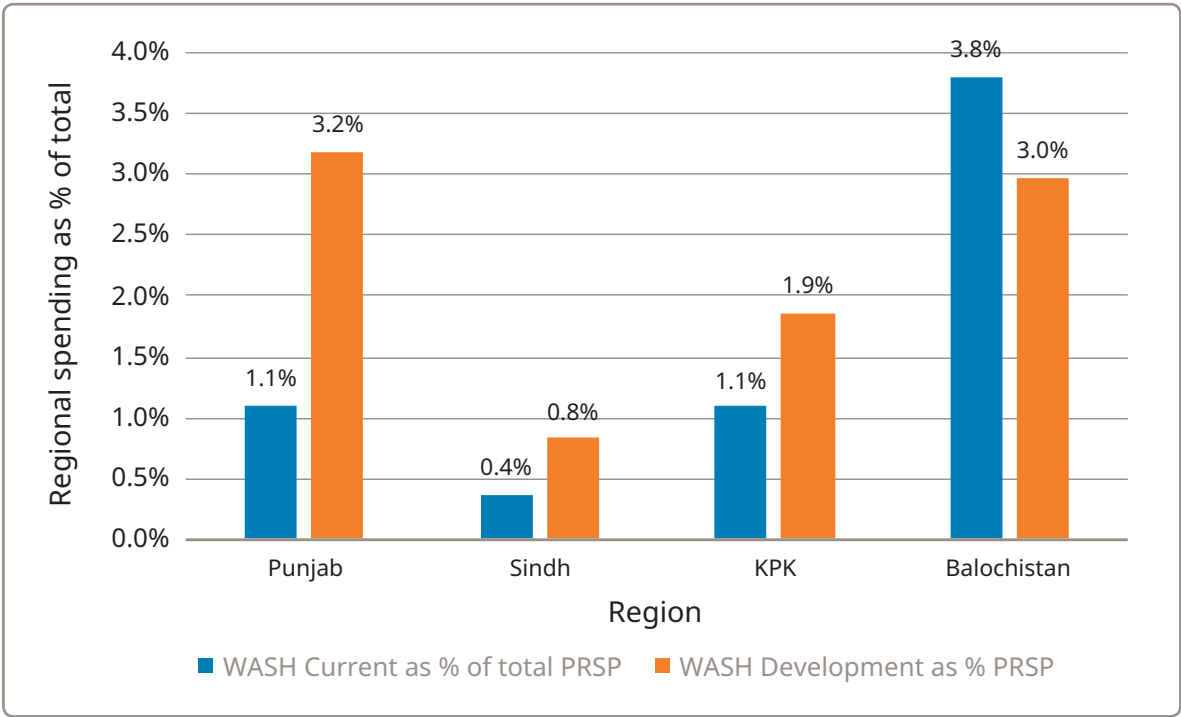
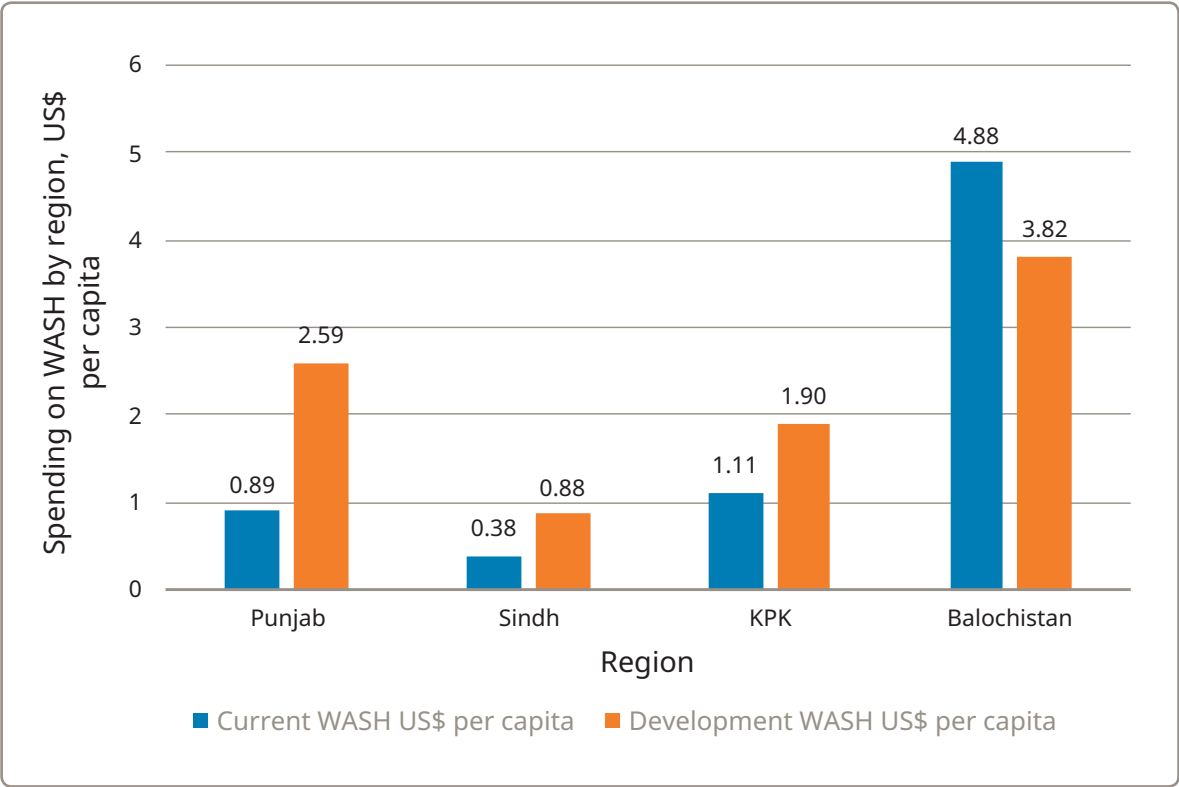
**Environment/Water Supply and Sanitation, FY 2018-19, millions of rupees**

	Federal	Punjab	Sindh	KPK	Balochistan	Total
<b>Current</b>	1,166	11,217	4,131	6,577	6,202	29,293
<b>Development</b>	620	7,513	180	4,238	3,342	15,893
<b>Total</b>	1,786	18,730	4,311	10,815	9,544	45,186

### 2.2.2 Sub-national government financing for WASH

Reviewing provincial governments in more detail confirms that there is a large amount of variability in budget allocations for WASH and WASH-related areas, both in per capita terms and as a percentage of the total budget (see Figure 9). This ranges from US\$ 1.3 per capita and 1.2% of total poverty reducing expenditure in Sindh, to a high of US\$ 8.7 per capita and 7.3% of the total budget in Balochistan. These differences could reflect several factors, including the capacity of provincial governments to raise taxes and finance the WASH sector, the fiscal envelopes available to different governments, and the balance between particular provincial and local governments in terms of authority and responsibility for the delivery of WASH services.

**Figure 9** - 2016/17 Provincial government spending on water, sanitation and environment (US\$ per capita and % budgetary expenditure on poverty reduction)



Source: PRSP Budgetary Expenditure for the 2016-17 financial year.  
 Notes: KPK refers to Khyber Pakhtunkhwa province. PRSP refers to Poverty Reduction Strategy Paper.

**Figure 10** - Total utilisation rate of WASH funding dropped significantly in 2016-17 compared to 2015-16

WASH allocations and expenditures (billions of Pakistani rupees, current prices)		2015-16			2016-17		
		Budget	Actual	Utilisation rate	Budget	Actual	Utilisation rate
<b>Punjab</b>	Recurrent	12.4	17.2	139%	12.6	10.7	85%
	Development	24.1	19.0	79%	45.2	31.1	69%
	<b>Total</b>	<b>36.5</b>	<b>36.2</b>	<b>99%</b>	<b>57.8</b>	<b>41.8</b>	<b>72%</b>
<b>Balochistan</b>	Recurrent	4.0	4.8	120%	4.2	6.3	150%
	Development	4.6	4.4	94%	15.4	5.5	36%
	<b>Total</b>	<b>8.7</b>	<b>9.2</b>	<b>106%</b>	<b>19.6</b>	<b>11.8</b>	<b>60%</b>
<b>Khyber Pakhtunkhwa</b>	Recurrent	1.6	3.5	218%	0.4	0.3	91%
	Development	7.4	5.4	73%	10.8	12.3	114%
	<b>Total</b>	<b>9.0</b>	<b>9.0</b>	<b>99%</b>	<b>11.2</b>	<b>12.6</b>	<b>113%</b>
<b>Sindh</b>	Recurrent	2.5	2.2	87%	2.4	2.0	83%
	Development	7.4	5.8	78%	4.7	4.6	97%
	<b>Total</b>	<b>10.0</b>	<b>8.0</b>	<b>80%</b>	<b>7.1</b>	<b>6.6</b>	<b>92%</b>
<b>Total</b>	Recurrent	20.6	27.8	135%	19.5	19.3	99%
	Development	43.6	34.6	79%	76.1	53.5	70%
	<b>Total</b>	<b>64.2</b>	<b>62.4</b>	<b>97%</b>	<b>95.7</b>	<b>72.8</b>	<b>76%</b>

Source: Joint WASH Sector reviews of the provincial governments of Balochistan, Khyber Pakhtunkhwa, Punjab and Sindh.

Although it is not possible to look holistically at local government expenditure on WASH, the expenditure of water and sanitation boards and agencies in five cities (Figure 11) provides an insight into the scale of possible expenditure not currently being captured. The five cities are Faisalabad and Multan in Punjab, Peshawar in Khyber Pakhtunkhwa (KPK), Karachi in Sindh and Quetta in Balochistan. The data show that there is potentially additional funding for WASH, raised by Water Boards and Agencies through a mix of water charges and other fees. This is particularly significant in the case of the Karachi Water and Sewerage Board, which mobilised more local income than received from the provincial government. In addition, Boards and Agencies receive funding for non-development spending from local government taxes (such as the Urban Immovable Property Tax) and electricity subsidies from provincial governments. These sources are potentially not captured by only looking at specific spending on water and sanitation by the Federal and Provincial Governments. There would be significant benefits from greater transparency of Water Board, Agency and Local Government WASH budgets and spending of local governments as well as Water Board and Agency spending on WASH. This would enable a more accurate estimate of total domestic public resource funding in Pakistan.



**Figure 11** - Expenditure by WASAs as a proportion of provincial government funding to the environment, water and sanitation sector

Water Boards and Agencies	Punjab province			Balochistan province	Sindh province
	Faisalabad	Multan	Peshawar	Quetta	Karachi
<b>Own source revenues (Rs. Million)</b>	1,123	407	221	48	7,940
<b>Own source revenues as a % of provincial environment, water and sanitation expenditure</b>	2.7%	1.0%	0.5%	0.4%	121.0%
<b>Non-development spending as a % of provincial environment, water and sanitation expenditure</b>	6.96%	4.15%	5.19%	1.04%	250.29%

Source: Various WASA reports and financial statements

Notes: Data used is from the latest available financial year for each WASA, ranging from 2015/16 to 2018/19

## 2.3 International public financing

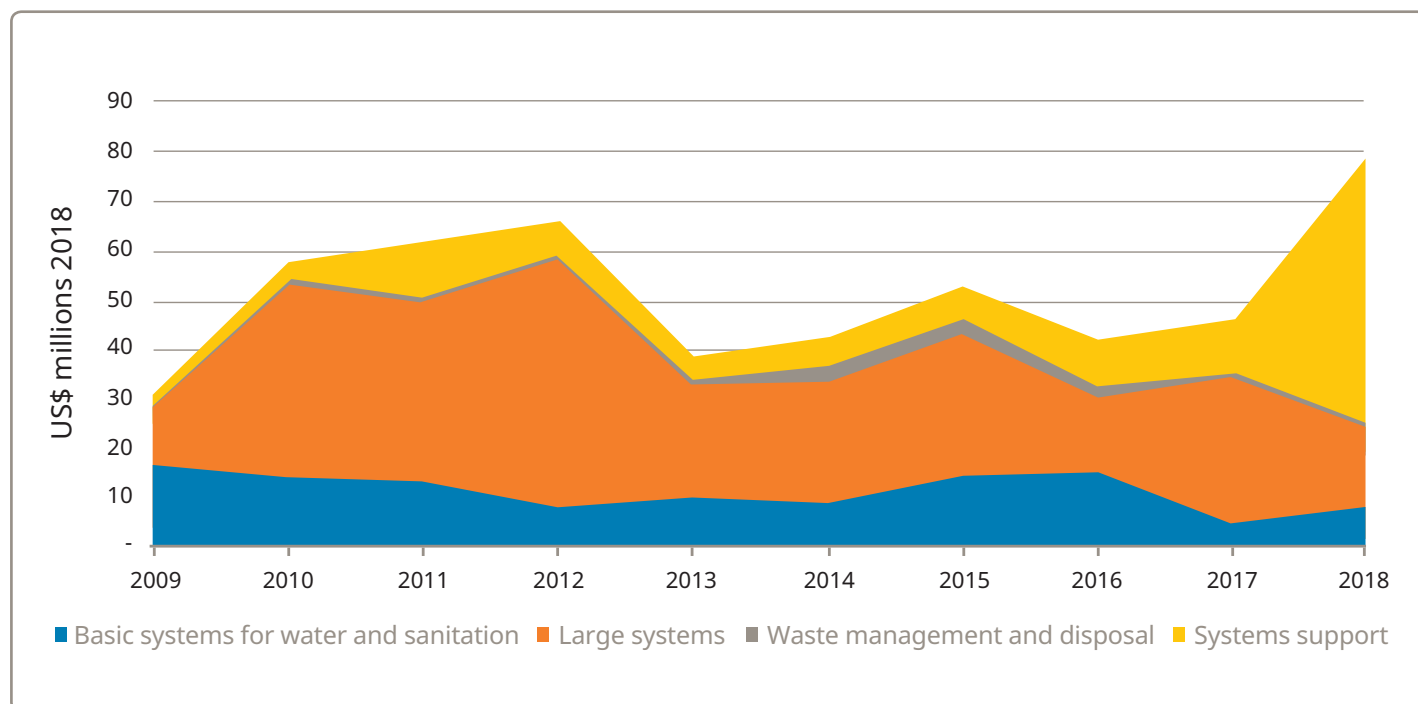
### 2.3.1 Overview of WASH specific

#### Official Development Assistance (ODA) financing

Over the last decade Pakistan has seen considerable growth in ODA reported to the water and sanitation sector. Although ODA disbursements have fluctuated over the last decade, the total in 2018 of US\$81.5 million represents a significant increase from the US\$30 million recorded in 2009 (Figure 12). In 2018 Pakistan received the 29th highest ODA disbursements to water and sanitation, making up 1.1% of total global ODA to water and sanitation. Water and sanitation accounted for 3.3% of total ODA received by Pakistan in 2018. Neighbouring India in comparison was the highest recipient globally of water and sanitation ODA (US\$ 518.6 million), accounting for 6.7% of the total ODA disbursed by donors reporting to the Development Assistance Committee (DAC).



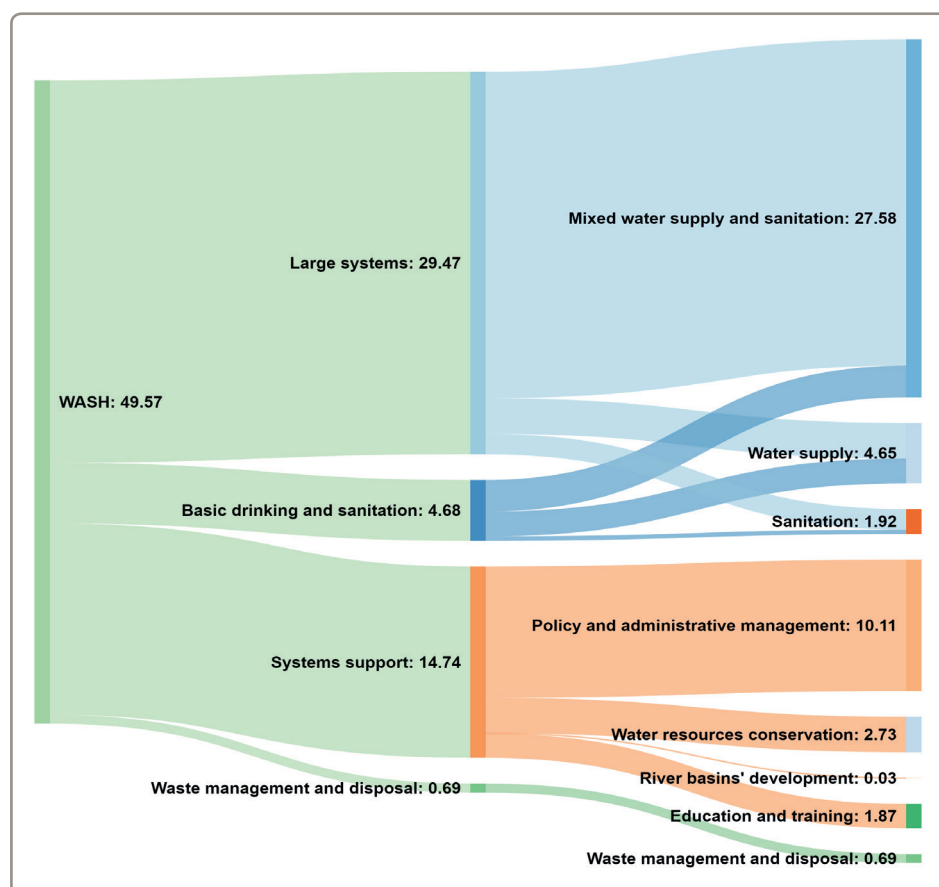
**Figure 12 - Water and sanitation ODA disbursements by sub-sector**  
(US\$ million, 2009 to 2018)



Source: OECD Credit reporting system

Figures 12 and 13 show that ODA in recent years has been dominated by disbursements in large water and sanitation systems and systems support. The annual average for 2016-2018 is US\$ 24.7 million for water sector policy and administrative support, US\$ 20.1 million for large systems and US\$ 9.7 million for basic systems. This increase in systems support since 2010 may reflect the growing concern from donors around the sustainability of water and sanitation services in Pakistan, low levels of recurrent funding and the need to assist provincial and local governments following the devolution of power to them. For example, the US Government in 2017 provided most of its ODA to local governments for systems support.

**Figure 13** - 2017 Snapshot of ODA disbursements to water and sanitation (sub-sector and purpose codes, US\$ million)



Source: OECD Credit reporting system

The International Development Association of the World Bank (41% of the total), Japan (21% of total), the United States (12%), and the Asian Development Bank (6%) are the major official donors of water and sanitation ODA to Pakistan, accounting for 79% of the annual average of US\$ 60 million 2016-2018. UNICEF, the United Kingdom and Switzerland were other key development partners, accounting each for 4% of the 2016-18 annual average.

In June, the World Bank announced a major commitment linked to Pakistan's Clean, Green Campaign, with US\$188 million made available for a five-year programme to address environmental degradation, deforestation, climate change-caused disaster risks in the country. It aims to use nature-based solutions such as increasing forest cover, strengthening hydro-meteorological forecasting for effective delivery of disaster risk management services. It includes a 'Green Nigehbaan' initiative to provide job opportunities to youths and daily-wagers as part of the 10 billion tree afforestation project. Regarding the modality of ODA and the channel of delivery, disbursements from Japan<sup>40</sup> and the United States were in the form of grants and were channelled through the government.<sup>41</sup> The Asian Development Bank and the World Bank also channelled ODA disbursements through the government but these were primarily in the form of loans.

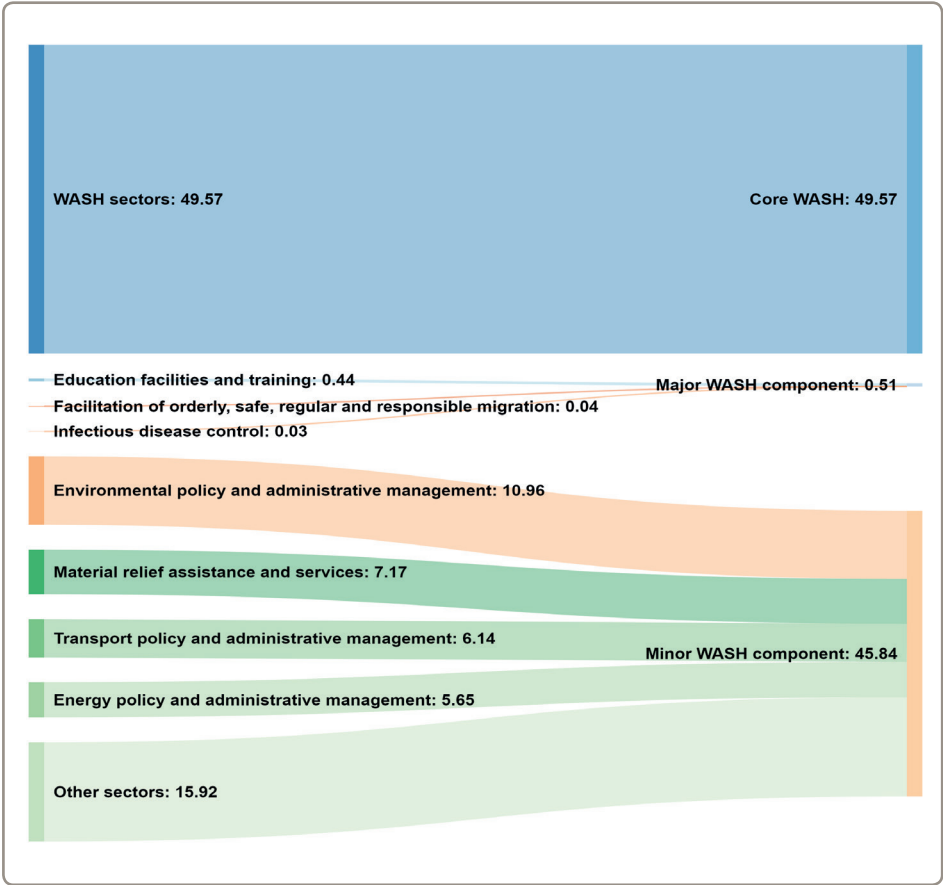
<sup>40</sup> This was predominantly focused on a project to improve the energy efficiency of water supply in Lahore. <https://www.jica.go.jp/pakistan/english/office/topics/press150618.html>

<sup>41</sup> This was predominantly focused on a project to improve the energy efficiency of water supply in Lahore. <https://www.jica.go.jp/pakistan/english/office/topics/press150618.html>

2.3.2 Wider potential international public financing to WASH

Outside of the ODA disbursements specifically for water and sanitation, there is also a significant proportion of ODA reported in other sectors that has WASH as a major or minor component within it. Figure 14 shows in 2017 that disbursements not coded as WASH were at similar levels to those coded as WASH-specific. Typically, these projects with WASH-relevant funding were focused around emergency humanitarian relief, environment and energy, indicating how WASH can cut across several different and varied sectors. This also highlights the need for better reporting on ODA, so that either projects can be disaggregated into different purpose codes, or a secondary purpose code could be applied so that humanitarian funding could be disaggregated from ODA for longer-term development.

**Figure 14** - ODA funding for water and sanitation coded projects and others that have a major or minor WASH component (2017 ODA disbursements, US\$ million)



Source: OECD Credit reporting system

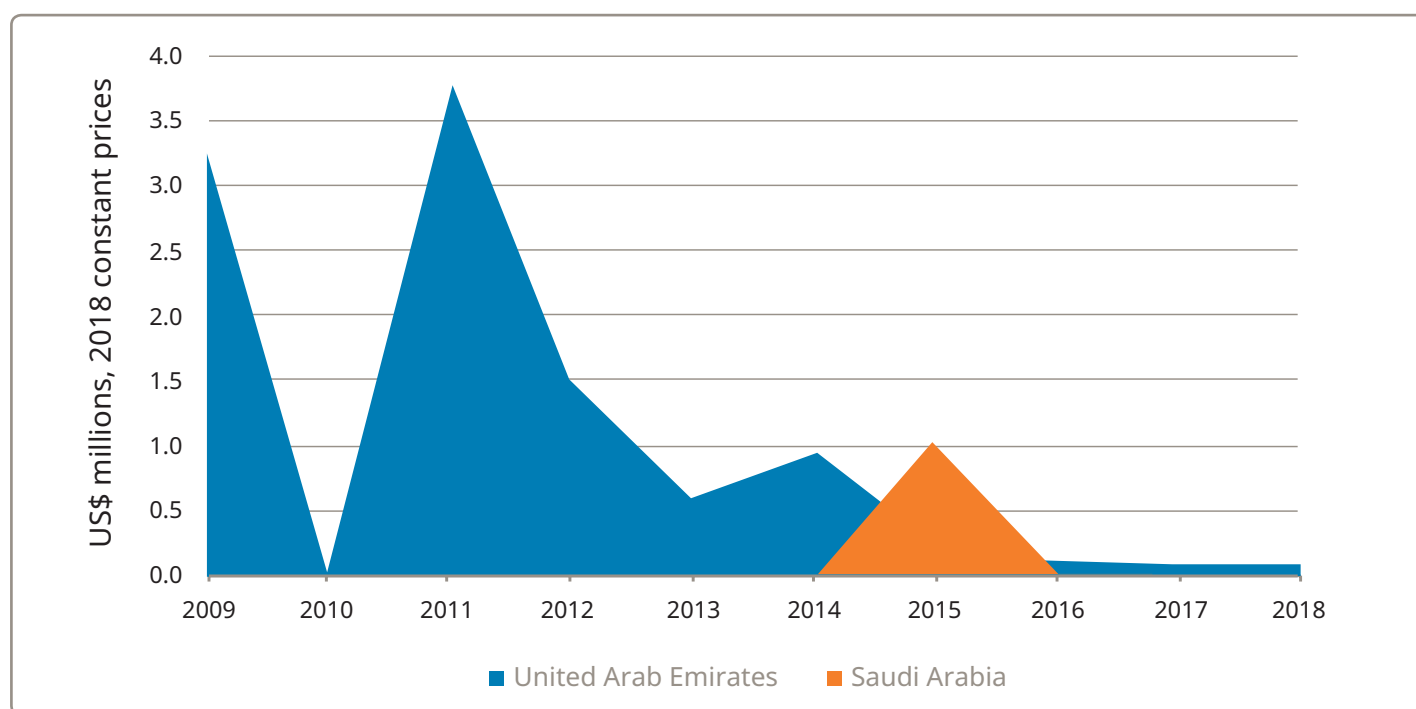




### 2.3.3 Review of non-DAC ODA flows, possible SS cooperation and foundation support

Although Development Assistance Committee (DAC) bilateral donors and multilaterals provide most of the total ODA support to Pakistan, the United Arab Emirates (UAE) and Saudi Arabia also report some disbursements to the WASH sector (see Figure 15). The largest of these was from the UAE in 2011, accounting for just under US\$ 3.8 million.

**Figure 15** - Non-DAC aid disbursements to water and sanitation (US\$ million, 2009 to 2018)



Source: OECD Credit reporting system

Between 2016 and 2018, the Asian Development Bank and the International Bank for Reconstruction and Development of the World Bank provided an annual average of US\$12.5 million and US\$9.1 million to water and sanitation in the form of other official flows (OOFs).<sup>42</sup> China and the Islamic Development Bank have also been significant disburseurs of development assistance to Pakistan, although not within the WASH sector.<sup>43</sup>

<sup>42</sup> Disbursements which did not meet the eligibility for ODA, for example because the grant element of the loan was less than 25%.

<sup>43</sup> <http://www.ead.gov.pk/userfiles1/file/EAD/2018/Final%20PCP%20Year%20Book%202016-17%20.pdf>

### 2.3.4 External finance provided to support Pakistan's response to the COVID-19



Pakistan has received significant amounts of external finance to support the government's response to COVID-19. In April the IMF agreed to provide US\$1.4 billion to Pakistan through its Rapid Financing Instrument. This is designed to meet the balance of payments needs of Pakistan's economy, under strain due to domestic containment measures and the global downturn. The World Bank also approved a US\$200 million package in April aimed at strengthening Pakistan's health system. The Pandemic Response Effectiveness Project (PREP) provides support for detecting and monitoring the disease, as well as social protection measures, food rations and remote learning education for poor and vulnerable populations. Existing World Bank projects have been adapted to provide medical equipment and supplies (US\$38 million).

In May, the Asian Development Bank (ADB) agreed a US\$ 305 million emergency loan for the purchase of medical equipment and as well as financial support for those in vulnerable situations and on low incomes. In June the ADB agreed a further US\$500 million to support the government's response to the crisis. This was financed under the Bank's COVID-19 Active Response and Expenditure Support (CARES) programme. The programme supports the government in delivering social protection to the poor and vulnerable, expand health sector capabilities and delivers a pro-poor fiscal stimulus to boost economic growth and jobs. The CARES program is facilitated by parallel financing of \$500 million from the Asian Infrastructure Investment Bank (AIIB) and another \$500 million from the World Bank.

In April, the US government announced US\$8 million in aid for testing, treatment and monitoring as well as training of community healthcare workers. In May, the UK government announced GB £4.39 million to fight the spread of the coronavirus, including contributing to Pakistan's Humanitarian Pooled Fund (PHPF), supporting Aawaz II, a joint programme with UNICEF, UNFPA and UN Women to support women and children who face domestic violence, and supporting the Khairkhwah information campaign.

The European Union is providing €150 million to support the government in the short and medium term, including funding for essential medical equipment, awareness raising, finance for Small and Medium Size Enterprises, and budget support to strengthen the COVID-19 response in the provinces of Khyber Pakhtunkhwa and Sindh.

China provided medical staff, ventilators and masks to support the government's response at the beginning of the crisis. The United Arab Emirates sent 14 metric tonnes of medical and food aid to Pakistan, part of an overall programme of 320 metric tons of aid to over 30 countries.

Non-governmental organisations (NGOs) are also supporting the efforts to combat COVID-19. International NGO WaterAid is working with WHO, UNICEF and the government to improve hygiene facilities in key locations. This involves the provision of handwashing facilities and hygiene essentials, such as soap, masks and menstrual hygiene kits. WaterAid has also led a digital awareness campaign, reaching 22.6 million people.

## 2.4 Other identified financing – international/domestic private financing

### 2.4.1 Review of available data on household/domestic private investment on WASH

GLAAS reports (2017 and 2019) show that households contributed 23% and 29% of total WASH expenditure in 2016 and 2017 respectively.<sup>44</sup> Within urban areas, both households and businesses make important contributions to WASH financing through payment of water and sewerage charges, for example through WASAs. These payments are intended to cover non-development costs, but evidence suggests that their contributions fall significantly short of meeting this (see Section 4). Figure 16 outlines that household spending on water and refuse collection across provinces in Pakistan is low compared to their total per capita spending per household.<sup>45</sup> Although the data shows that the poorest pay the least, there are also examples where the poor pay substantially more than wealthier populations, served by networks. A 2019 report on Karachi outlined that private contractors supplying water by tanker to low-income communities charged up to seventeen times the actual cost of the water.<sup>46</sup>

In addition, as highlighted in Section 1, community groups have responsibilities over management and minor maintenance of public WASH facilities. Although there are no figures for the level of funding provided for this, it is none the less an important non-wage contribution, which could be understood further.

**Figure 16** - Expenditure by WASAs as a proportion of provincial government funding to the environment, water and sanitation sector

MONTHLY PER CAPITA CONSUMPTION EXPENDITURE PER HOUSEHOLD, 2015/16)	PUNJAB	SINDH	KHYBER PAKHTUNKHWA	BALUCHISTAN
Average monthly per capita expenditure (rupees)	5294.31	5262.5	4931.83	3829.93
o/w Water, Refuse Collection (rupees)	10.42	40.43	4.66	68.16
Expenditure on Water and Refuse Collection as a % of total	0.20%	0.77%	0.09%	1.78%

Source: Pakistan Bureau of Statistics, Household expenditure data

<sup>44</sup> In 2016 this was US\$214 million of US\$916 million total WASH expenditure (constant 2014 dollars) and in 2017 US\$ 331.7 million out of a total US\$1.134 billion (constant 2017 dollars).

<sup>45</sup> Per capita spending is higher in urban areas. A significant part of this is from energy bills and the cost of operating motorised pumps.

<sup>46</sup> <https://www.samaa.tv/news/local/2019/04/why-dont-we-just-privatise-kwsb-and-karachis-water/>

## 2.4.2 Remittances and Foreign Direct Investment

Pakistan is one of the highest recipients of remittances in the world. In nominal terms, remittances have grown from US\$1.1 billion in 2000/01 to US\$20 billion in 2017/18. In 2019, the country received US\$21.8 billion in remittances from an estimated six million Pakistanis living abroad, most of whom are based in North America, Europe and Gulf Cooperation Council countries. There are also significant amounts of remittances, not captured in these figures, but transferred through hand carry, hawala and other informal means. Remittances now make up the largest contributor to foreign exchange inflows into the country. As well as their overall importance to the country's balance of payments, several studies have pointed to the importance of this income to households. For example, households receiving remittances have total expenditure 50% higher overall and spending on utilities 35% higher.<sup>47</sup> Therefore, whilst it is difficult to obtain an accurate picture of remittance expenditure on WASH, it is clear that it is an important source of household expenditure on WASH, either directly or from freeing up household income to invest in WASH. The COVID-19 pandemic is likely to have a significantly negative impact on remittances for Pakistan. The World Bank has forecast a fall of 20% in global remittances, caused by the impact of the pandemic on migrant worker employment and wages.

Regarding other forms of international private finance, foreign direct investment in the water and sanitation sector is not thought to be significant, with only one project reported in recent years. This was for a water desalination plant in Karachi by a US company called Global EnviroScience Technologies in 2008 for a total of US\$150 million.<sup>48</sup> Total FDI flows (for all sectors) to Pakistan in recent years have ranged between US\$ 1.3 billion and US\$ 2.5 billion.<sup>49</sup> The level of FDI is also likely to be subject to decline as a result of the pandemic, particularly during 2020.

## 2.4.3 Examples and extent of innovative financing to the WASH sector

Pakistan is regarded by many as a country which demonstrates good practice in terms of the legislative framework and the implementation of Public Private Partnerships (PPPs). At the Federal Government level, the 2017 PPP Act guides the implementation of projects with support for line Ministries provided by the PPP Authority under the Ministry of Finance. Provincial governments also have legislative frameworks in place. These include the 2014 PPP Acts in Punjab and Khyber Pakhtunkhwa, which are supported by specific agencies, such as the PPP cell within the Planning and Development Board of the Punjab Provincial Government. PPPs are seen as a key mechanism to increase private sector investment in physical infrastructure as part of Vision 2025, the 12th National Five-Year Development Plan and Provincial Government Development plans. To this end the Federal Government PPP Authority (known previously as the Infrastructure Project Development Unit) successfully implemented four projects totalling 100 billion Pakistani rupees (equivalent to US\$ 954 million in 2017 exchange rates)<sup>50</sup> These were focused on road transport. The Government of Punjab also has several PPP operational projects in the health and transport sectors. However, provincial governments have not yet implemented any projects within the WASH sector, although the Government of Punjab has a project in the pipeline to construct a wastewater treatment plant in the north-east of Lahore.<sup>51</sup>



<sup>47</sup> <http://repositori.uji.es/xmlui/bitstream/handle/10234/177508/INTERNATIONAL+JOURNAL+OF+SOCIAL+ECONOMICS.pdf;jsessionid=DD818877A13BB02A75A359104B4C0F6E?sequence=1>

<sup>48</sup> fDi Markets from Financial Times Ltd

<sup>49</sup> UNCTAD, World Investment Report, 2013-2018.

<sup>50</sup> <http://www.pppa.gov.pk/docs/newsletters/NewsletterPPPA.pdf>

<sup>51</sup> [https://ppp.punjab.gov.pk/WASTE\\_WATER\\_LAHORE](https://ppp.punjab.gov.pk/WASTE_WATER_LAHORE)



Pakistan also receives funding for WASH from corporate philanthropy. Although it is difficult to quantify the extent of this support, there is evidence of multi-national companies implementing corporate social responsibility (CSR) projects. For example, Proctor and Gamble (P & G) has supported the provision of clean drinking water in Karachi, through its Children's Safe-r Drinking Water Project.<sup>52</sup> Nestlé has established six clean water facilities serving 60,000 people.<sup>53</sup> The Coca Cola Foundation supported a community in northern Pakistan in the construction of a gravity-fed piped water system, bringing spring water and snow melt six kilometres from the Karakoram Mountains in Gilgit-Baltistan, Pakistan's northern-most region. The PepsiCo Foundation is partnering with WaterAid to improve access to clean drinking water for the communities in Lahore, Karachi, and Islamabad.

The major bottled water companies have also drawn concern from the authorities in their exploitation of Pakistan's ground water resources, with the chief executives of major companies, including Nestlé, Coca Cola, PepsiCo and Gourmet, ordered to appear before the Supreme Court in 2018. An audit report showed that Nestlé had made minimal payment to government departments for the 4.43 billion litres of water extracted between 2013 and 2017. The report highlighted legal inadequacies in regulating the bottled water business in the country and its impact on groundwater extraction. Subsequently the Supreme Court imposed a levy on companies selling mineral water and beverages at a rate of one rupee for every litre of surface water extracted, with the revenue hypothecated to support financing efforts for the proposed Diamer-Bhasha and Mohmand dams.<sup>54</sup>

There are a number of domestic companies that are engaged in philanthropic giving, such as Soneri Bank Limited, K-Electric and English Biscuit Manufacturers. There is also a significant amount of individual philanthropy within Pakistan, such as Zakat giving. However, it is difficult to estimate the extent of funding that goes to WASH, although research has found that typically giving has tended to focus on individuals or households, rather than to organisations.<sup>55</sup>

► **Saadia Sohail, 51, Member of the Provincial Assembly (MPA) of Punjab, planting a tree with students at Lahore University for Women, Lahore, Pakistan, August 2019.**



<sup>52</sup> <https://csdw.org/blog/pouring-hope-into-karachi-communities>

<sup>53</sup> [https://www.nestle.pk/asset-library/documents/creating\\_shared\\_value/nestlé-csv-report-2018.pdf](https://www.nestle.pk/asset-library/documents/creating_shared_value/nestlé-csv-report-2018.pdf)

<sup>54</sup> Nestlé Pakistan established three processing plants for treatment of water extracted from a total of nine wells at three sites of Islamabad, Port Qasim and Sheikhpura. <https://www.dawn.com/news/1442464>; <https://www.dawn.com/news/1457080>

<sup>55</sup> <http://www.pcp.org.pk/uploads/nationalstudy.pdf>

## Section 3. Financing and needs

### 3.1 Overview of national level WASH financing needs

The financial requirement of implementing WASH includes the full costs of achieving universal access to safe drinking water (target 6.1), achieving universal access to adequate sanitation and hygiene (target 6.2) by 2030 and achieving an end to open defecation by 2025. Section Two presents historical WASH funding principally from government resources and ODA, with the GLAAS report indicating a government budget for WASH of US\$ 973.4 million in 2018. However, whether this scale of financing is enough requires a comprehensive understanding of the cost of fulfilling these goals. This section examines existing costing estimates of implementing WASH in Pakistan and compares these against the scale of financing already committed by both government and international partners.

Based on three methods of costing, current estimates of the level of financing required to implement SDG 6.1 and 6.2 in Pakistan range from \$4.3 billion to \$7.7 billion per year (Figure 17). Notably this range incorporates costs according to different definitions: the estimate by the World Bank (2016) considers the full public and private capital and operating expenditure to fulfil the goal, whereas the estimate by SDSN (2018) covers only estimated required government (public) expenditure. The estimate by the Federal Government of Pakistan (2019) uses the World Bank's 2016 model, but only presents the estimated required capital expenditure. The capital component of the World Bank's 2016 estimate is \$5.2 billion—slightly higher than the Government's 2019 estimate.

Although there is some uncertainty in such national-level estimates (see Box 2), the figures nevertheless provide a credible overall picture of financing needs and show that there is a significant gap between what current levels of funding are and what is needed.



**Figure 17** - Various annualised cost estimates of fulfilling SDG 6.1 and 6.2 in Pakistan<sup>56</sup>

WASH costing	Methodology type	Cost type	Average annual cost (2016 USD)
World Bank (Hutton and Varughese, 2016) <sup>57</sup>	Intervention based needs assessment	Total capital and operating costs	\$7.3bn
Federal Government of Pakistan (2019)	Uses World Bank (2016) method	Capital costs only	\$4.3bn
SDSN (Sachs, et al., 2018) <sup>58</sup>	Cross-sectional international assessment	Government expenditure	\$7.7bn <sup>59</sup>

The gap in financing is also outlined by the GLAAS 2019 report, which reports the financing sufficiency of committed WASH plans from the relevant countries surveyed. The 2019 report for Pakistan identifies that the cost requirements of water supply and sanitation are not yet supported by adequate financing, with sufficiency of no more than 50% for any of the WASH subsectors (Figure 18).

**Figure 18** - GLAAS 2019 financing sufficiency report for Pakistan

WASH sector	Locality	Sufficiency of financing to implement WASH plans
Water supply	Urban	Less than 50%
	Rural	Less than 50%
Sanitation	Urban	Less than 50%
	Rural	Less than 50%
Hygiene	Total	Less than 50%

Source: UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water GLAAS 2019 Report

<sup>56</sup> Implementing SDG 6.1 and 6.2 includes the cost of delivering a safely-managed drinking water service located on premises, available when needed and free from contamination, a safely-managed sanitation service, where open defecation is ended and excreta safely disposed of in situ or treated off-site, and a hand-washing facility with soap and water.

<sup>57</sup> Estimate is based on intervention cost of attaining and maintaining universal coverage of safe water and sanitation services, ending open defecation and achieving access to basic hygiene.

<sup>58</sup> Estimate is based on the scale of a 'SDG-compatible' budget, which is defined by government sector spending as a proportion of GDP.

<sup>59</sup> Figure is calculated based on IMF projected GDP for the SDG period.

## Box 2: Data challenges with national WASH costings

The task of estimating international and national-level costings for meeting WASH targets is substantial and challenging. Two key approaches to calculate national WASH costs are intervention needs-based assessments and cross-sectional assessments. Interventional assessments examine existing levels of WASH needs and estimate the direct costs associated with implementing complete coverage of services, whereas cross-sectional assessments analyse spending in economies which have achieved complete WASH coverage and apply these to economies without complete coverage. Both methods may be characterised as macro-analysis which examines economy-wide costs, but by this nature it contains significant data uncertainties.

An interventional analysis approach relies on a large number of input parameters—unit costs, coverage, technology choices and population projections to name a few—each with their own individual uncertainties and assumptions; indeed, the technical paper of the World Bank's 2016 WASH costing report notes that “estimates reported in this study should be used with caution” for this very reason. The paper further recommends that when undertaking national costings using the method, locally informed unit costs, technology mixes and delivery mechanisms should be used where available. Comparatively, a cross-sectional analysis is inherently broad in scope and favours generality and ubiquity over precision and accuracy. As few individual parameters are considered, the approach is a useful tool in providing a “ballpark” estimate.

Macroanalyses such as these are forced to generalise beyond what may be considered at a microplanning level; for example, specific local economies of scale, frictional distances, uptake behaviour and political barriers are all significant variables in local-level costing considerations, but at a national-level are impractically difficult to quantify and consider. As noted by the World Bank, the possibility for local costings exercises to feed into national-level models is one approach which reduces generalisations required for a macroanalysis.



## 3.2. Localised costings approaches: findings and opportunities to inform national costings estimates

Given some of the challenges and data assumptions behind national level WASH costings undertaken in Pakistan, there is potential for local level WASH costings exercises to provide additional insights. These are not only useful at local level but can also inform national level costings exercises. Published budget documents for Punjab province allow for the opportunity to examine real costs of new and existing WASH infrastructure within the region, alongside implemented technology approaches in both urban and rural settings. Punjab is Pakistan's second largest and most populous province, with over half of the country's population. WASH implementation in the province is likely to be reasonably representative for much of the country's population, and it is therefore a useful tool in informing national costings.



A close analysis of Punjab province's budget reveals that the priority for urban water supply is the provision of safely-managed water directly to household premises, whereas in rural areas, immediate provision is in the form of community hand pumps and wells. Furthermore, the urban sanitation strategy is directed at constructing safely-managed sewerage systems. The estimated per capita costs of new and existing infrastructure, including support costs, may then be used to inform the national costing model.

A second key source for locally-informed WASH costs in Pakistan is the Punjab Economic Research Institute (PERI). Notably, PERI identifies the historical, current and expected future expenditure towards meeting the safe water and sanitation goals for SDG 6 in Punjab province, based on existing local costings. Analysis of these figures reveals the effective per capita costs in each of these WASH sectors, which may be used to inform national level costings.

Despite the information available for Punjab province, the availability of other subnational costing exercises in Pakistan is limited and making them available would greatly improve national-level costing accuracy.

### 3.3. Updated costing estimates for Universal WASH access in Pakistan, using national and local costing approaches

The approach of the World Bank (2016) represents the most comprehensive international tool for estimating the intervention costs of meeting SDG targets 6.1 and 6.2. The study examines the cost of implementing WASH in 140 countries, disaggregated across urban and rural areas, and uses a methodology which examines pairwise technologies in the provision of basic water supplies and both basic and safely managed sanitation.<sup>60</sup> The final figures include estimates for capital expenditure, capital maintenance, operating costs and other costs. In the case of Pakistan, the total estimate of achieving complete coverage of safe water and sanitation, including ending open defecation by 2025 and implementing basic hygiene is approximately \$95.2 billion over the period 2017-2030.<sup>61</sup>

However, the international scope of this method means that it is likely national-level detail is lost. For this reason, the World Bank method has been packaged into a costing tool for use by governments and NGOs: the Sanitation and Water for All Partnership (SWA) tool encourages users to replace the default values for coverage, technologies and unit costs with locally-informed data in order to derive more accurate national level costings. Notably the Federal Government of Pakistan used the SWA tool for costing WASH in Pakistan in 2019, although it is unclear what new data were used in this adaptation.

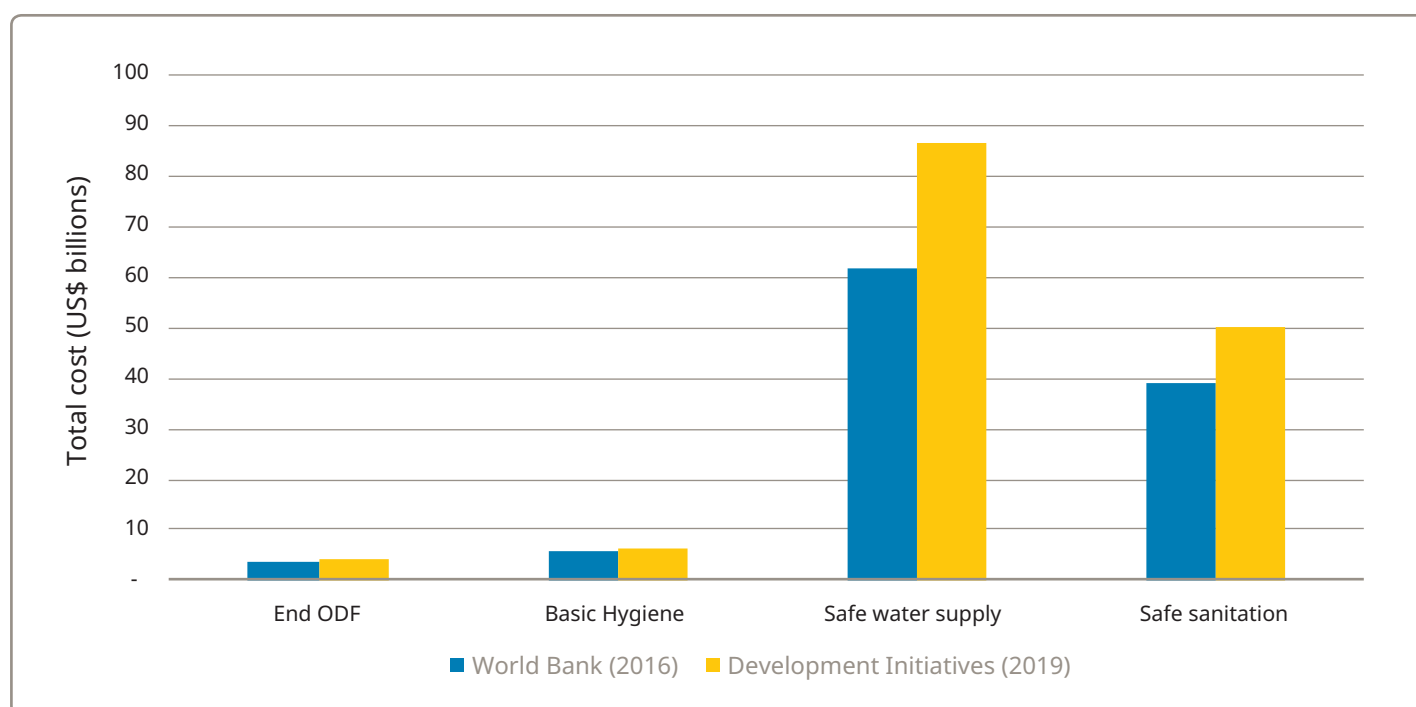
This section presents a further estimate. It is also based on the SWA tool but uses locally-informed unit costs from Section 3.2, more recently available population projections from World Population Prospects 2018 and JMP's 2017 coverage estimates. Furthermore, the methodology of the tool is modified to reflect the differing technology priorities in urban and rural areas, and to incorporate the concept of basic-to-safe technology displacement. Several significant changes are therefore introduced into this process: for example, there is a higher number of unserved urban population than originally considered, implementation of basic water supply is considered only an immediate aim in rural areas, and basic water supply and sanitation infrastructure is replaced by safe technologies when introduced.

<sup>60</sup> Safely-managed water involves a single baseline technology assumption of piped water supply on-plot

<sup>61</sup> The original World Bank model estimated the total cost for the period 2015-2030—for a final value of \$110bn. The figure presented is produced from the average annual requirement over the period 2017-2030. Values are in constant 2016 prices; an annual discount rate of 5% is assumed for the model.

The updated analysis suggests that the cost of implementing universal coverage of safely managed water supply is significantly higher than the 2016 World Bank estimate. The main drivers of these increases are higher than predicted unit costs, a greater unserved rural population and revised existing rural coverage rates. The cost of safely managed sanitation is also higher, largely due to our use of a 0% baseline figure. This is the same approach as used previously by the Government, however it is unlikely to be a true reflection of reality (see Box 3). The updated estimated total cost of fulfilling SDG 6.1 and 6.2 is approximately \$159.6 billion (2016 prices) over the 2017-2030 period—an average annual total cost of \$12.3 billion, with a capital component for new and replacement infrastructure of \$7 billion (see Figure 19). This annualised capital and maintenance cost are equivalent to an average projected GDP commitment of 1.8%, which is slightly below the level of government investment in WASH infrastructure suggested by SDSN for an ‘SDG-compatible’ budget (2% of GDP).<sup>62</sup>

**Figure 19** - Costing estimates for water, sanitation and hygiene



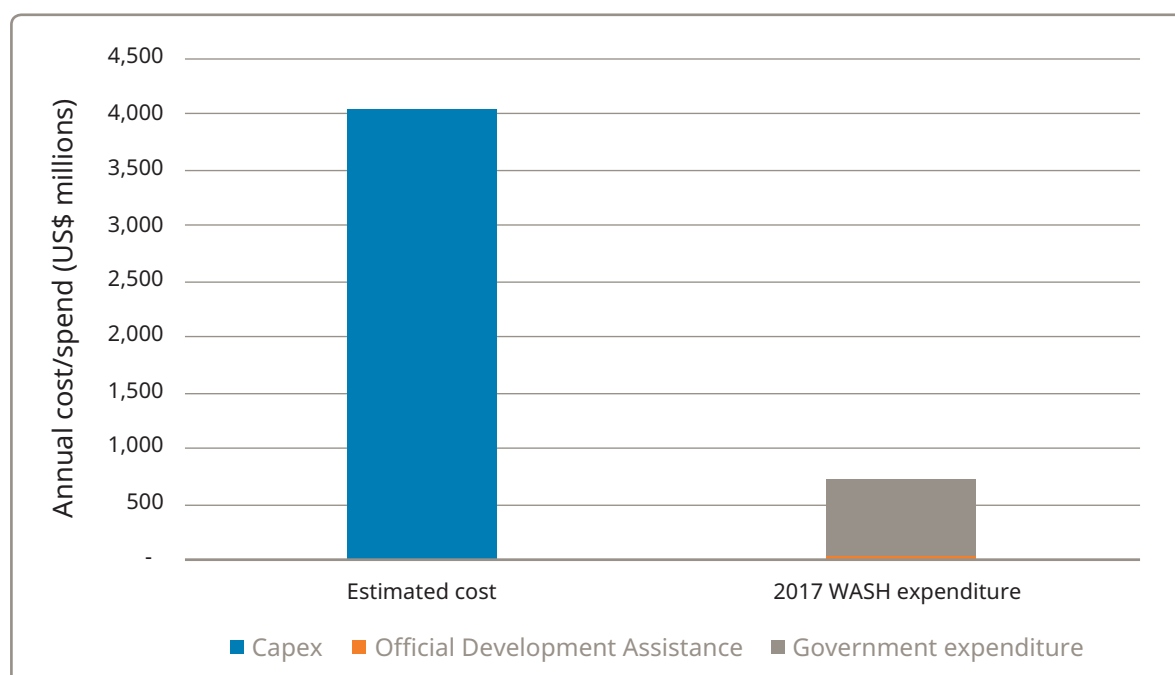
<sup>62</sup> The total average annual requirement of \$12.3 billion is equivalent to 3.2% of Pakistan's projected annual GDP; the total capital requirement for new and replacement infrastructure of \$7 billion is equivalent to 1.8%; the capital requirement for new infrastructure only of \$4.4 billion is equivalent to 1.1%.

Cost type	Average annual cost (2016 USD)				
	ODF	Basic hygiene	Safe Water supply	Safe Sanitation	Total
Capital: total infrastructure	5294.31	5262.5	4931.83	3829.93	<b>\$7 bn</b>
new infrastructure	\$0.1 bn	\$0.03 bn	\$2.2 bn	\$2.1 bn	\$4.4 bn
replacement infrastructure	\$0.04 bn	\$0.1 bn	\$1.2 bn	\$1.2 bn	\$2.6 bn
<b>Operation and maintenance</b>	0.20%	0.77%	0.09%	1.78%	<b>\$5.3 bn</b>
<b>TOTAL</b>	<b>\$0.2 bn</b>	<b>\$0.4 bn</b>	<b>\$6.4 bn</b>	<b>\$5.2 bn</b>	<b>\$12.3 bn</b>

Source: Authors' calculations based on 'The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene', World Bank Technical Paper 103171; World Population Prospects 2018; WHO/UNICEF Joint Monitoring programme database (July 2019); and national sources.

Given the costing exercise undertaken, it is clear that the gap between current financing and projected need is acute: even when considering the best possible scenario that all operating expenditure and capital maintenance are entirely covered by private investment and/or user tariffs, the remaining average annual capital outlay for just new infrastructure in achieving universal WASH is US\$ 4.4 billion per year up to 2030 (or US\$ 3.2 billion per year depending on the safe sanitation figure, see Box 3). This minimum requirement may be contrasted with Pakistan's WASH spending in 2017—Official Development Assistance of \$49.5m and government expenditure of \$ 661.7 million—which reveals a gap of \$ 3.7 billion (see Figure 20). The COVID-19 pandemic, for which good hygiene is a key preventative measure, underscores the importance of closing this gap with renewed urgency.

**Figure 20** - Annual new infrastructure capital cost estimates vs current public investment



Source: Authors' calculations, The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene, World Bank Technical Paper 103171, OECD CRS database, PRSP Annual Progress Reports 2016/17, Ministry of Finance Pakistan

### Box 3: Impacts on accurate costings from uncertainty in safe sanitation baseline coverage estimates

The discussed methodologies for costing universal WASH ultimately rely on accurate baseline coverage estimates of WASH's components—that is, the share of population already served by basic water supply, sanitation and hygiene and safe water supply and sanitation. Baselines of coverage are required to produce an estimate for the future 'to-be-served' population, and hence the overall final cost. Uncertainty in these baseline coverage estimates can significantly alter the projected capital and operating costs of achieving universal WASH. Baselines may be sourced from national offices or international databases such as the World Health Organisation and UNICEF's JMP report.

In the case of Pakistan, baseline coverage of safe sanitation is not published within the JMP. This omission poses significant issues in the accurate projection of the cost of achieving universal WASH; while the Government's national baseline for safely managed sanitation is 0%, which is used in the costing estimate above, such a low figure seems unlikely. Data from the 2017/18 Multiple Indicator Cluster Survey (MICS) for Punjab region showed that 40.7% of the population uses on-site facilities that are safely managed (shared and non-shared), with a further 9.3% using on-site facilities where excreta is taken for treatment and 24.5% connected to sewerage. Although it is not possible to judge from the survey how much of the 9.3% (on-site facilities taken for treatment) and the 24.5% of the population (connected to sewerage) experience a safely managed service, these numbers are nevertheless clearly at odds with the suggested zero national coverage. It is therefore necessary to consider that the zero-baseline coverage used in the costing model is an unlikely lower bound and when data from other provincial MICS becomes available the baseline should be adjusted accordingly.

Using JMP's estimates for the coverage of basic sanitation as an upper bound, it is possible to produce an uncertainty range for the cost of safe sanitation. At one extreme, where safe sanitation coverage is in fact zero, the annual new infrastructure capital cost of implementing safely managed sanitation over the period 2017-2030 is \$2.1 billion. At the other extreme, where safe sanitation coverage is equal to basic coverage, the cost is reduced by over 40% to \$1.2 billion per year. Such a large uncertainty reinforces the need for accurate monitoring and reporting of SDG indicators. Only with accurate baselines can spending be effectively and efficiently targeted to achieve universal WASH by 2030



## Section 4. Opportunities and challenges



### 4.1 Opportunities and challenges to scaling up WASH sector financing

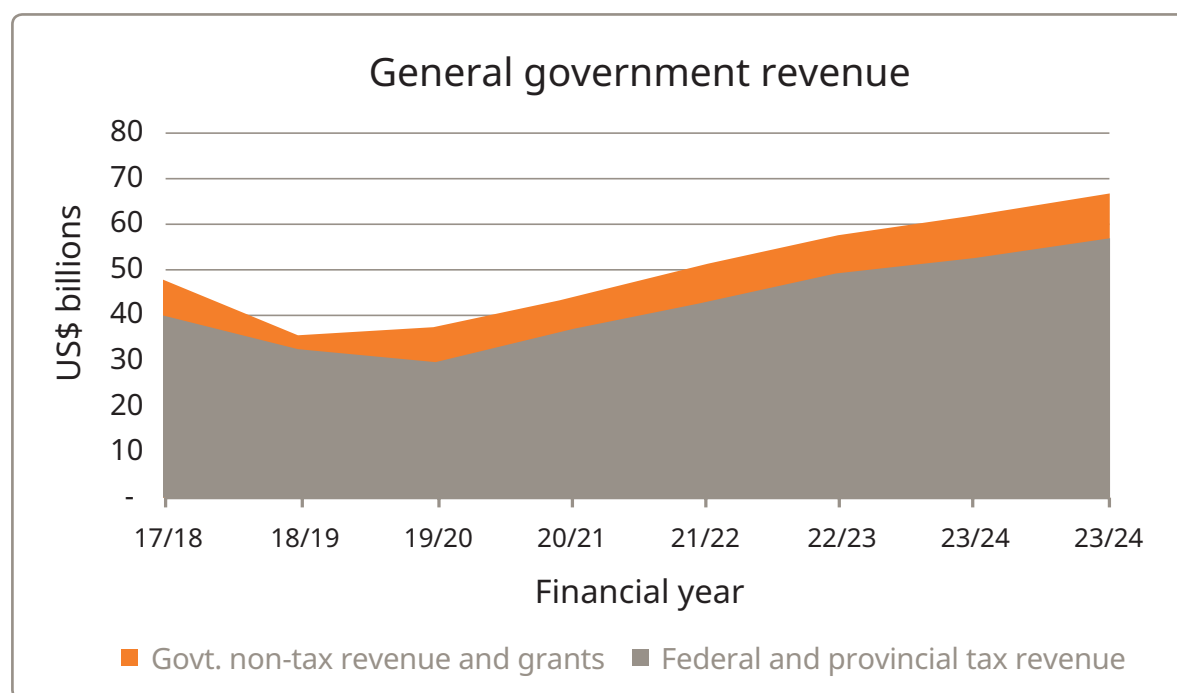
The previous section outlined the stark differences between the present level of funding for WASH and the estimates of what might be required to achieve universal access by 2030. Whilst new technologies and approaches may bring the financing requirement down, the scale of the financing gap brings into focus the need to raise additional resources. The following looks at different types of development finance sources and assesses the opportunities and challenges in scaling up funding. Whilst the COVID-19 pandemic creates significant uncertainty, it also underscores the vital need to identify the necessary policies and funding so that everyone in Pakistan has access to safe WASH.

#### 4.1.1 Domestic public resources

Section Two outlined how both continued economic growth and strengthened collection of taxes has strengthened domestic public resources. Prior to the COVID-19 pandemic, the government under its Extended Fund Facility (EFF) programme with the IMF had targeted a significant increase in revenue collection from 15% of GDP in 2018 to 20% in 2024. The pandemic led to an agreement with the IMF in April 2020 for the disbursement of US\$1.386 billion to address the economic impact of the COVID-19 shock. The economy is expected to decline in real terms by 1.5% in FY 2020. The forecast increases for government revenue over the medium term have been revised down from pre-pandemic levels with government revenue forecast to reach 17.4% of GDP in 2024/25. A proportional increase of the government WASH budget from the US\$973 million in 2018 could potentially deliver an additional US\$400 million per year by 2024/25, which although valuable, would still leave a very significant funding gap.



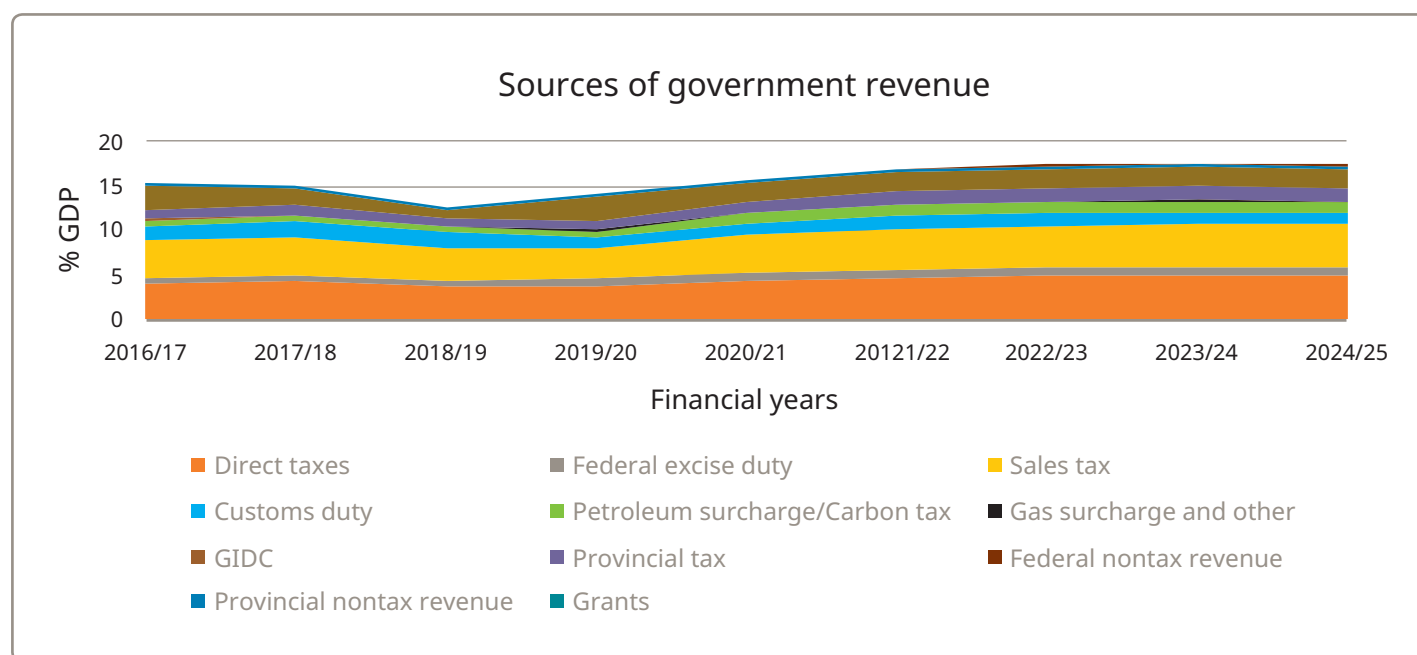
**Figure 21** - General government revenue , 2017/18 to 2024/25



Source: IMF Rapid Financing Instrument Request, Pakistan, April 2020, and author calculations

Whilst the potential growth in domestic public resources provides an opportunity to increase funding to WASH, careful consideration will need to be made about the tax regime and its impact on the poorest and most vulnerable. The current and future projected tax composition relies significantly on indirect sources such as Value Added Tax (VAT) (see Figure 22). Although this is not definitively regressive in nature, there is a need to understand the impact on different groups in society, particularly as subsidies for energy have decreased in recent years and electricity prices have risen. However, the Government's commitment to scale up social spending (such as the Benazir Income Support Programme) with the fiscal space created by additional revenue mobilisation should help counter potential impacts on the poorest. The adverse impacts of COVID-19 and the economic recession will be acutely felt by the poor and vulnerable, although government and cooperating support is aimed at mitigating this.

**Figure 22 - Government revenue by type, 2012 to 2024**



Source: IMF Rapid Financing Instrument Request, Pakistan, April 2020

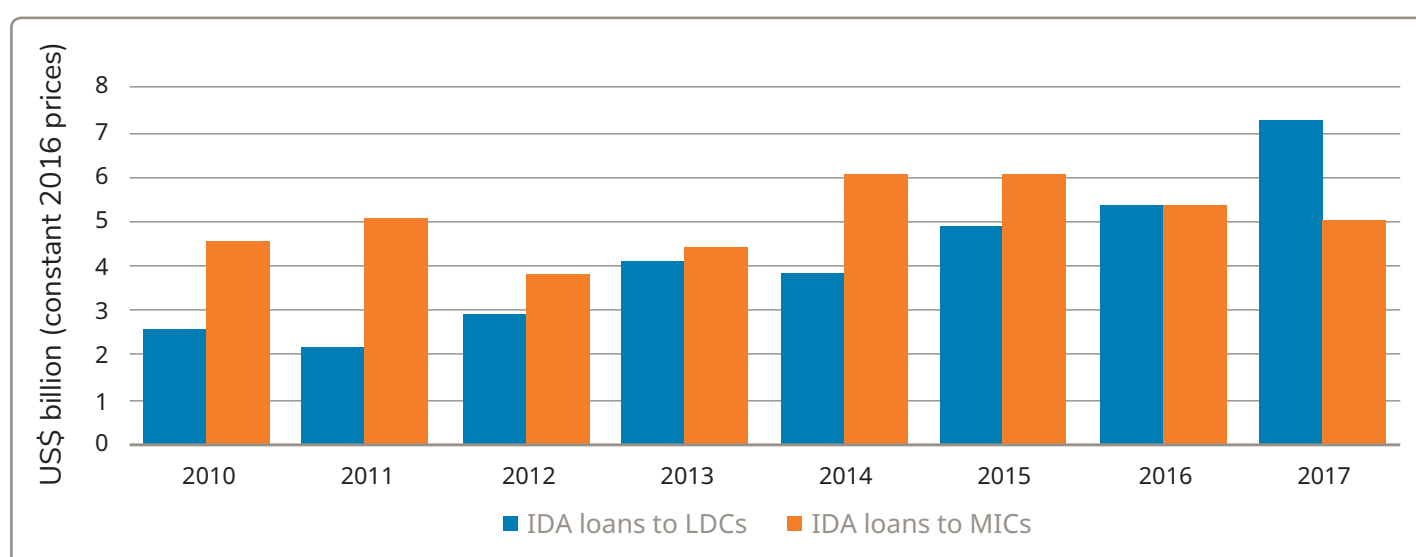
Despite the potential to increase additional domestic public resources, as shown in Section Two, WASH spending accounts for only 1% of total government expenditure. This is very low by international standards. This highlights a lack of political will to invest significantly in the sector. However, the launch of the Clean Green Pakistan Movement and its commitment to spend 1% of the total of the Public Sector Development Programme (PSDP), which would equate to US\$168 million based on the 2017/18 PSDP, provides some hope there will be a renewed commitment to increasing expenditure in this area. Given the low proportional level of spending on WASH, any reprioritisation of expenditure towards WASH would greatly boost investments towards financing universal access. However, one of the main constraints in growing the fiscal space to invest in WASH is the structure of the 7th NFC. This is thought to disincentivise the Federal government from collecting additional taxation from areas which become part of the divisible pool of tax resources shared with the provinces, but instead to focus on revenue generation from other sources, which can be fully retained at federal level. These can then be used to meet the demands of security and debt repayments, but at the cost of higher NFC allocations to provincial governments for basic services.<sup>63</sup>

<sup>63</sup> The total average annual requirement of \$12.3 billion is equivalent to 3.2% of Pakistan's projected annual GDP; the total capital requirement for new and replacement infrastructure of \$7 billion is equivalent to 1.8%; the capital requirement for new infrastructure only of \$4.4 billion is equivalent to 1.1%.

### 4.1.2 ODA and other public international financing

Section 2.3 outlined how ODA funding for water and sanitation in Pakistan increased in 2018 to US\$81.5 million after having fluctuated between US\$40 million and US\$60 million over recent years. Globally water and sanitation ODA as a percentage of total ODA has fallen from 4.2% of total ODA in 2012 to just under 4.0% in 2018. Although ODA from members of the OECD's Development Assistance Committee (DAC) totalled US\$ 152.8 billion (on a grant-equivalent basis), a rise of 1.4% in real terms from 2018, there is an increasing trend of ODA being reprioritised from Middle Income Countries (MICs) such as Pakistan towards Least Developing Countries (LDCs) and Low-Income Countries (LICs). An example of this is the International Development Association (IDA) of the World Bank (see Figure 23), which globally is one of the key disbursers of WASH ODA.

**Figure 23** - IDA has moved away from lending to MICs in favour of LDCs



Source: OECD Credit Reporting System

Although ODA in overall terms is not a highly significant financial flow to WASH, it does remain important, both in the context of funding infrastructure and providing systems support to sub-national governments and reaching low-income communities. In addition, at present the fiscal position of the government is significantly challenging, with interest payments on debt estimated to be 31% of revenue in 2017/18. Therefore, the concessional nature of ODA could provide a continued important and sustainable source of financing for WASH. In addition, given the government's commitment to increase development resources through PPPs and increasing domestic public resources, securing ODA support in this area could provide catalytic in nature. ODA targeted to these areas is currently a key interest area for development partners.

Regarding other international public financing, it will be essential to explore opportunities for concessional forms of finance, such as from the Islamic Development Bank. Pakistan is one of the leading recipients of support from the Islamic Development Bank, yet only 0.2% has been channelled to support water and sanitation.<sup>64</sup> The China-Pakistan Economic Corridor is an example of the close relationship Pakistan has with China, and the Chinese Government could be another potential source of funding for Pakistan's WASH sector.

There may also be important opportunities for Pakistan to secure climate finance for the WASH sector. Despite being one of the most vulnerable countries to the impacts of climate change, Pakistan is only ranked 50th in terms of climate funds received since 2012. Support has so far largely been directed at water resource management through the Green Climate Fund (US\$ 37 million) and to a lesser extent the Global Environment Facility (US\$6 million).<sup>65</sup>

Pakistan has received significant sums of external public finance including ODA to support the government's response to COVID-19. Several billions of US dollars have been made available by the international financial institutions (ADB, AIIB, IMF and World Bank), and close cooperating partners, including China, the EU, UAE, UK and the USA. The G20 and the Paris Club have agreed to provide debt relief of up to US\$1.8 billion during the period May 2020 to June 2021, with commercial creditors requested to provide similar relief.



### 4.1.3 Domestic private resources

Section Two highlighted the very low levels of household expenditure on water. Within urban districts the expectation is that at least operating costs would be covered by water and sewage charges. However, as shown by Figure 24 WASAs are struggling to recover operating costs through their own revenue raising. Across the five WASAs where budget data was available, the highest Karachi only recovered just under half of non-development spending, with Quetta the lowest at 4%. Several issues impact on the performance of WASAs. The Faisalabad WASA is relatively well-managed and is able to receive revenue from a large middle-class base, who can pay for water services. The size of the city (3.5 million people) has historically attracted more international collaboration and focus than smaller cities such as Quetta. A clear objective for WASAs is to improve revenue collection of water and sewage rates, with Quetta set to target defaulting commercial and domestic customers.<sup>66</sup>

With current low levels of household spending on WASH and a potentially large customer base that is not paying for services, raising more funding for the WASH sector through user fees seems a clear opportunity. However, there is a significant challenge to achieving this, as the current water scarcity and poor service delivery has inhibited government willingness to raise prices and meter supplies, for fear of political repercussions.<sup>67</sup> In addition to political issues, capacity constraints also inhibit the ability of WASAs to be able to achieve this. With any move to increase cost recovery, governments also need to be mindful of the impact of user fees on the poorest households, not only on their ability to pay, but ensuring supplies given scarcity issues. This is all the more important given the current pandemic. Options available to the Government are to support households actively either through cash transfers or through subsidies for certain water supply connections, toilets and other WASH products.

COVID-19 places new pressures on local government and WASAs as they seek to ensure continuity of services in unprecedented circumstances, with potential financial risks from reduced revenues, problems in sourcing key inputs, and delays to planned maintenance of networks.

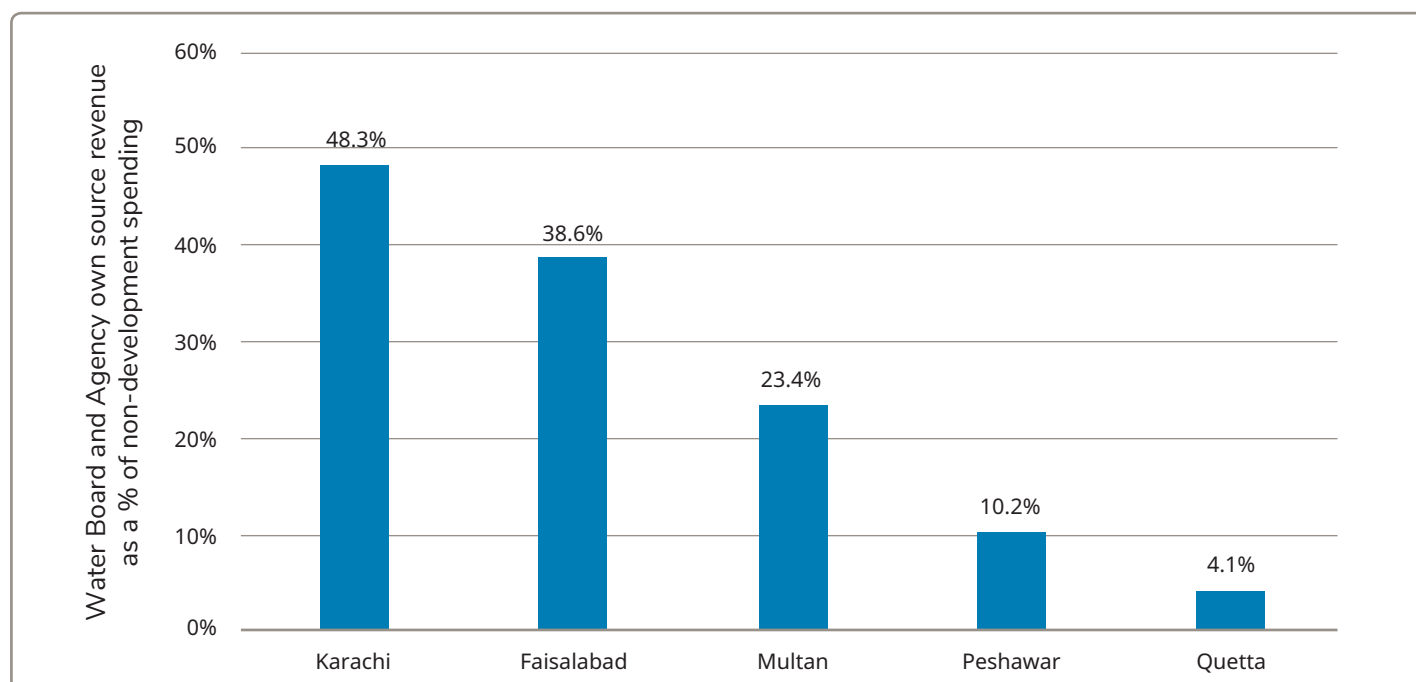
<sup>64</sup> [https://www.isdb.org/sites/default/files/media/documents/2019-04/usb%20Annual%20report%20English%202018\\_softproof.pdf](https://www.isdb.org/sites/default/files/media/documents/2019-04/usb%20Annual%20report%20English%202018_softproof.pdf)

<sup>65</sup> A project titled "Scaling-up of Glacial Lake Outburst Flood risk reduction in Northern Pakistan" implemented by UNDP and received by the Ministry of Climate Change

<sup>66</sup> <https://hudphed.punjab.gov.pk/system/files/8%28c%29-Pakistan%20Summary-Vol%20III%2012-6-13%20print.pdf>

<sup>67</sup> An overview of this challenge in Karachi can be found here.

**Figure 24** - WASA revenue from water and sanitation fees as a % of non-development budget



Source: Various WASA reports and financial statements

Notes: Data used is from the latest available financial year, ranging from 2014/15 (Quetta) to 2018/19 (Faisalabad)

#### 4.1.4 Wider innovative finance (e.g. blending/PPPs)

**Remittances** - Section Two outlined the growing importance of remittances to the country and their role in boosting household spending to support resilience. Whilst there are clear signs this will grow and be a potential source of funding for household expenditure on WASH, the government is also becoming aware that remittances could be directed to support specific infrastructure projects. For example, in September 2018 the Prime Minister of Pakistan called for the Pakistani diaspora to 'Donate for Dams'.<sup>68</sup> This led the Supreme Court of Pakistan to set up a fund-raising drive for the Diamer-Bhasha and Mohmand dams. As of the March 2020 the fund had raised PKR 12.2bn (US\$76mn). Whilst the primary purpose of the dams is electricity production and irrigation, it shows the clear potential to fund the WASH sector directly through donations. However, as the WASH sector is the responsibility of provincial governments, it may be more difficult to build up publicity for a donations campaign than the one for dams, given that the initial call came from the Prime Minister. In addition, as shown by private philanthropic giving within Pakistan, a key component of donating is the trust in the organisation or individual to use the funding effectively. Therefore, the use of remittances in this way requires high levels of transparency and accountability to ensure trust is maintained and the sustainability of this potential financing model achieved. COVID-19 is likely to have a negative impact on the volumes of remittances received by Pakistan, however, as employment and wages of migrant workers fall in overseas economies, including GCC, the EU, UK and USA.

<sup>68</sup> <https://arynews.tv/en/naya-pakistan-receives-3-9-billion-in-two-month-remittances-by-overseas-pakistanis/>.



**PPPs** - As highlighted in Section Two, a clear priority for both federal and provincial governments is increasing investment for infrastructure through PPPs. Legislative frameworks are in place for PPP development, and PPPs in other sectors are underway in provinces such as Punjab. This would suggest that there is potential interest in PPPs in the WASH sector. An example in Sindh is the call by the Hisaar Foundation to privatise the Karachi Water and Sanitation Board under a “Government Investor Public Partnership”. Under this model the government would remain an asset owner and regulator and elect officials or citizen bodies to be part of the Board. A similar governance structure was adopted in Manila in the Philippines.<sup>69</sup> The success in this regard would depend on the relevant provincial ministries working with local governments and PPP authorities to identify potential projects and suitable private sector partners. Challenges to the uptake of PPPs include value for money and concern, particularly amongst NGOs and civil society, of privatisation of traditionally public services.

## 4.2 Making most effective and efficient use of financing

The previous sections of the case study have outlined the significant challenge facing Pakistan in its endeavour to achieve universal access by 2030, given the scale of needs and the estimated gap in financing to be able to deliver the delivery and maintenance of the required WASH facilities. In addition, although there is some potential to increase financing, even before the impact of COVID-19, there was a substantial gap in funding. This means careful consideration needs to be made into how the current and future funding for WASH can be used in ways that are most efficient and effective, both in terms of using financial resources according to their comparative advantage and building an enabling environment and financing framework with which to achieve this.

### 4.2.1 The comparative advantage of financing types

Based on the findings from Section One, the greatest gap to achieving universal WASH coverage in Pakistan is meeting the needs of the poorest in society in certain geographic areas, and in doing so to ensure sustainability of access in an increased water scarce environment. Given this, the challenge will not only be meeting the immediate needs of access but ensuring that appropriate technologies are used to provide enough, quality WASH services, without compromising the sustainability of available resources such as ground water. The major measurable investments in WASH in Pakistan are from domestic public resources and ODA, which being public in nature, rather mean they have the potential to be redistributive in nature, and target resources where need is greatest. Despite this, both for the governments within Pakistan and development partners a key consideration is value for money, balancing meeting the needs of those most left behind and using resources that impact the highest number of people. In addition, political decision-making can influence government funding allocation decisions. However, where possible the redistributive nature of public funding needs to be central in planning processes. The means by which it is raised through taxation and cost recovery mechanisms is also a key consideration. It is important that the cost of access is not prohibitive and that tax regimes do not adversely impact the poorest in society.



<sup>69</sup> <http://hisaar.org/hf/wp-content/uploads/2019/04/Urban-Water-Management-HF-Think-Tank-April-2019.pdf>

Donations from the Pakistani diaspora could also prove to be a financial flow that can target schemes that are less financially viable, and attention should focus on utilising funding where this is the case and where the needs of the poorest are prioritised. However, the donations are typically dependent on the donor wanting to support a specific project. In addition, as a new and innovative form of finance for infrastructure development, it is essential that funding received leads to successful project delivery to build trust with individual donors and potential donors, to catalyse future financing.

Unlike public funding, private funding tends not to be redistributive in nature. For example although the Government is looking at the opportunity in increasing private investment, with potential to look at PPPs, there is an increasing body of evidence that challenges the ability of public-private financing approaches to deliver in the public interest<sup>70</sup> It focuses on the impact of PPPs on the poorest and most vulnerable, on unequal risk sharing between private and public actors and has questioned the assumed substitutability of public for private finance in the provision of essential public services such as WASH. Therefore, as highlighted in section 4.1.2, the government should take time in identifying projects which would be suitable for PPPs and ensure any decision prioritises the public interest.

The severe health and economic impacts of the COVID-19 pandemic have led to significant external financial support becoming available for Pakistan. However, there is a significant risk that if too much of this financial support is in the form of non-concessional lending, that it will add to the external debt, undermine the sustainability of public finances and erode the domestic resources available for investment in the health and WASH sectors.

#### 4.2.2 Improving the effectiveness and efficiency of available finance

Section One also drew attention to the significant challenges within the WASH sector, covering a range of areas such as a lack of coordinated planning, implementation and management, as well as human resource challenges. Therefore, whilst there is a clear gap in financing to meet universal WASH access in Pakistan, it is important that progress is made to meet these challenges to ensure that the financing is utilised in an effective and efficient manner. For example, there needs to be:

**Greater coordination across government** - the 18th Amendment to the Constitution brought about significant devolution in the WASH sector, meaning responsibility over its delivery was devolved to those closer to the point of service and more cognisant of the needs of populations they serve. However, at present the federal government now has a limited role over the sector and there are issues with both provincial and local governments having similar mandated roles in the sector, with a lack of coordination between all tiers. Moving forward for financing to be effective and efficient, there is a need for greater coordination across government, ensuring that projects are designed with the knowledge of different government agencies, so that there is no overlap or neglect in the provision of services.

**Need for greater data to guide financial resources** – there is currently a lack of continuous reporting and monitoring and evaluation within the WASH sector. Although data on WASH has been facilitated through various surveys and the 2017 census, to guide financing decisions, there is a need for better understanding of the current status of WASH facilities, not only in estimating access levels, but also their functionality and the quality of provision. In addition, greater clarity is needed around financial investments in the sector across all tiers of government, particularly at the local level, to assist other actors in making investments in specific areas.

<sup>70</sup> E.g. <https://eurodad.org/files/pdf/1546956-history-repeated-how-public-private-partnerships-are-failing-.pdf>

**More efficient service delivery of WASH and energy sector** – there are a number of ways that current government spending on WASH could be made more efficient. Within some Water and Sanitation Boards the level of development spending is low relative to non-development spending (e.g. in Quetta it is estimated at only 5% of the total). This is also the case for the Karachi Water and Sewerage Board.<sup>71</sup> In addition, Section Two highlighted a key recent challenge of poor utilisation rates of allocated WASH investments within the Punjab and Balochistan governments. Understanding these bottlenecks to facilitate increased capital spending will be crucial for effective service delivery. Also, although outside of the WASH sector, electricity costs form a significant and growing proportion of non-development expenditure for water boards and agencies. The situation could be improved through the use of more efficient power plants and transmission and reducing the use of oil burning plants.<sup>72</sup> This could help reduce costs for water agencies and the subsidies they receive for electricity could be repurposed to other areas. Lastly, public financial management systems could be strengthened, including providing a more equitable resource allocation system within the 8th NFC award, and improving the utilisation rates of funding allocated for projects.

**High levels of transparency and accountability for COVID-19 support**– there is substantial funding being made available to address the impact of COVID-19, from the government and from cooperating partners. Debt relief and ODA will continue to be needed, and at higher levels than current commitments, and it will be critical that these new financing flows face high levels of accountability and transparency, with financial tracking from commitment to delivery of infrastructure or services on the ground.



▲ Ehsaas Emergency Cash Disbursements in Kotri District Jamshoro, Sindh amid COVID 19 initiated by Poverty Alleviation and Social Safety Division, Government of Pakistan.

<sup>71</sup> E.g. <https://eurodad.org/files/pdf/1546956-history-repeated-how-public-private-partnerships-are-failing-.pdf>

<sup>72</sup> E.g. [https](https://)

## Section 5: Conclusions and recommendations



Pakistan faces a major task ahead in achieving universal access to WASH by 2030. The COVID-19 pandemic makes this more difficult, but also more urgent, and the country will need to draw on all its experience, resources and international partnerships if it is to achieve SDG 6 by 2030 or before. Despite making significant progress on MDG 7, targets on improved access were nevertheless narrowly missed. The challenge now is not only meeting the needs of those who still lack access, many of whom are in poorer rural areas, but ensuring that the population has access to safely managed water, sanitation and hygiene services, and on an accelerated timetable. The task is made more difficult within the context not only of the pandemic but of high population growth, urbanisation, industrialisation and climate change. These are combining to place severe strain on water availability and leading to increased pollution of water sources. If universal access is to be met, then it will require a multifaceted approach which is coherently aligned with this wider development and environmental landscape.

The government and cooperating partners are focused on providing an effective response to the pandemic and the economic recession through programmes such as the COVID-19 Pakistan Preparedness and Response Plan. Pakistan's Vision 2025, the 12th Five Year Plan and Provincial government development plans are aligned or aligning to the SDGs and meeting SDG 6, and provide the broader, medium term framework. The Prime Minister's Clean Green Pakistan Movement highlights there is high-level support for progress to be made in addressing the country's deep-seated environmental problems. The task now is to translate these commitments into shared action across government departments at national and provincial level and within lower tiers of government. As these emergency responses are rolled out, there is also a need to solve concurrently the challenges within the WASH sector's institutional framework and the wider environment that shape its development, such as energy and water resource management.

The current investment in WASH is critically short of what is required to meet the required funding for universal access and is a major barrier to its achievement. However, there are a number of opportunities for increasing resources to the sector. COVID-19 is forecast to push the economy into recession in 2020 with an adverse impact on public finances, but domestic public resources are forecast to increase after 2021 and in the medium term, especially if there are renewed domestic revenue mobilisation efforts and further agreements can be reached on the country's external debt. The Clean Green Movement's commitment to increase government investment is a sign that there may be political support to address the current low level (0.2% of GDP) of investment in water and sanitation. The pandemic has transformed the international political, economic and financial landscape and although it brings huge uncertainty, given Pakistan's importance in the region and globally, there may be opportunities for Pakistan to attract more international financial support. Climate finance is another growing source of finance for developing countries, and given its vulnerabilities to climate change, Pakistan should be well-placed to access additional climate finance as part of a healthy and green recovery, and to adapt and build resilience to the impacts of climate change.



Although COVID-19 is likely to have an adverse short-term impact on WASA revenues, cost recovery for services through water and sewage charges is also a significant opportunity for improvement and increased funding, through improving service delivery and reducing wastage. The Government is also looking at alternative forms of funding for the sector, including increased private sector involvement through PPPs and through targeting individual philanthropic giving. Whilst these offer new opportunities for investment in WASH, it will be important to ensure the financing models chosen lead to results that are sustainable, in the public interest and meet the needs of the poorest communities. Lastly, although there are opportunities for increasing financing to WASH, it will be important to review and reform institutional structures for WASH, as well as wider sector financing and delivery, to ensure that the funding that is available is efficiently and effectively used.

Throughout this case study there have been a number of recommendations outlined. Some of these including the response to COVID-19 require urgent implementation, while others such as institutional reform, improvements in dialogue between key actors and in data and monitoring, require sustained action over several years. Taken together, we believe that these are the minimum steps required which are equal to the task of addressing the challenges in the water resources and WASH sectors in Pakistan, including COVID-19, the rapid decline of water resources, the impacts of climate change, and ensuring everyone in Pakistan has access to safe water, sanitation and hygiene. They are summarised below.

- The Government, at national, provincial and local level, should ensure that the COVID-19 Pakistan Preparedness and Response Plan and other relevant programmes include the necessary funding for all of Pakistan's population to have access to at least the basic levels of water, sanitation and hygiene services to prevent the spread of COVID-19.
- This should include rapidly rolled-out, just-in-time community water points and water kiosks and sanitation facilities in unserved rural and urban areas, public places, schools and health care facilities, providing access to drinking water, sanitation and handwashing with soap.
- The programmes should focus particularly on poor and vulnerable people and communities, with national, provincial, local government and WASAs working together to ensure drinking water, sanitation and hygiene are available in sufficient quantities and at affordable prices, consistent with the human rights to water and sanitation.
- Pakistan's cooperating partners should recognise the unprecedented social and economic situation facing the country and be ready to provide full support for the government in this endeavour, adjusting and increasing current programmes, as well as providing new funding, with high priority given to grant finance and debt relief.
- Looking beyond the immediate response to the pandemic, the Government should take steps to close the substantial annual financing gap to achieve SDG targets 6.1 and 6.2. The Government should aim for a five-fold increase in Government funding to the WASH sector—from federal and provincial governments—with a strong focus on equity and sustainability.



- This five-fold increase in annual spending in the WASH sector should be aligned with the Clean, Green Pakistan Campaign and steps to address the rapid decline of water resources, including groundwater, rivers, lakes, wetlands and the Indus delta. Strengthened, more effective regulation and increased investments should be seen as core actions relating to a green and healthy economic recovery from the 2020 recession.
- The international community also must support the Government in new ways—recognising that combating the pandemic, achieving the SDGs and transitioning to a net zero-carbon future are critical global public goods that justify substantial increases in global financial support. This should involve actual cancellation of debt and substantially increased aid and climate finance in grant form from Pakistan’s bilateral and multilateral cooperating partners.
- The Government should look to catalyse the contribution of private finance: attracting increased levels of remittances, philanthropic funds and corporate social responsibility programmes.
- It should also consider setting up an innovation fund dedicated to attracting private finance to address the multiple needs of the water resources and WASH sectors. With an increasing number of actors involved in financing WASH, including potentially donations from the diaspora, there is need for the government to focus on a clearer approach for sector financing, to ensure each type of funding is used efficiently and effectively to its comparative advantage.
- There should be a sustained effort to improve the performance of the WASH sector. This is relevant on several levels: institutional strengthening at national, provincial and local level to underpin the decentralisation process; better public financial management to tackle financial absorption constraints; improved cost recovery by WASAs, local governments and CBOs, through collection of tariffs and addressing wastage and leaks; strengthened regulation of groundwater abstraction and pollution of water resources; and improved dialogue mechanisms between state and non-state actors.
- There is an essential need to improve the data availability in the WASH sector. This is exemplified by the lack of national estimates for safely managed sanitation facilities. Whilst upcoming MICS surveys will help in this regard, their infrequent nature (every three years) is problematic, and governments should look to implement more continuous monitoring, including greater use of spatial data to accompany tabular data. In addition, improving data gaps within sub-national government expenditure, household spending and private giving would give a clearer picture of the financing landscape.
- Finally, investment in the wider enabling environment will be critical for the achievement of SDG 6 and for a health and green economic recovery from COVID-19. For example, inefficiencies in the energy sector are leading to increased costs for water for service providers and households. Increased investment and strategic planning in solar, wind and hydro-energy could deliver major synergies in WASH sector performance and support a transition to low carbon economy. Investment in water resource management could lead to better outcomes in terms of watershed restoration alongside meeting the competing needs for water, from the WASH, agriculture and industrial sectors. Public financial management reform, such as within the framework of the 8th NFC award, could help establish a more efficient and equitable model for revenue sharing.



**WaterAid**