

# Safely Managed Water and Sanitation Services *in Punjab*

(SDG 6.1 & 6.2)

## SOCIO ECONOMIC PROFILE

Punjab with a population of 101.4 million is the most populous province of Pakistan, with approximately 55.6% of the country's total population. The population growth rate in 1998 was 2.64%, which decreased to 1.9% in 2011. It is estimated that the population of province will be 130 million in 2030, and around 181 million in 2050. Rapid urbanisation and a growing population will continue to increase demand for water, sanitation and hygiene (WASH) services, as the current share of urban population is 32%.

Infant Mortality Rate (IMR) and Under 5 Mortality Rate (U5MR) remain high in Punjab. The MICS 2014 found an IMR of 76 per 1000 live births and U5MR of 96 per 1000 live births. Evidence suggests that pneumonia, diarrhoea and malaria cause about 50% of all deaths in children in Pakistan.

*Around 53,000 children die every year from diarrhoea in Pakistan, of which 27,000 in the Punjab only. In addition about one third of children under 5 years in Punjab are underweight (33.7%) and stunted (33.5%)*

## GOVERNANCE FRAMEWORK

The Government of Punjab has approved drinking water policy 2011, and a draft sanitation policy 2013 that is pending for approval with cabinet of Government of Punjab. Both policies provided the overarching vision and framework for Water, Sanitation and Hygiene (WASH) in the province. The Planning and Development Board, Government of Punjab has developed a growth strategy for the province entitled "Punjab Growth Strategy 2018 - Accelerating Economic Growth and Social Outcomes". The document endorses Punjab's health sector's vision and strategy, which emphasises improvement of water, sanitation and hygiene services to prevent communicable diseases. The government of Punjab developed a ten years WASH Sector Development Plan for Water, Sanitation and Hygiene 2014-2024 that was formally launched in February 2016. This serves as the implementation framework for drinking water, sanitation and hygiene in the province with short, medium and long-term strategic actions.

The Housing, Urban Development, Public Health Engineering Development (HUD-PHED) in collaboration

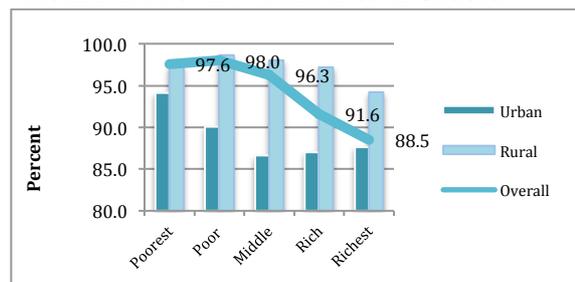
with UNICEF conducted WASH Capacity Assessment and developed Strategic Roadmap for WASH Human Resource Development, for service providers in Punjab. Further, the capacity development for Pakistan Approach to Total Sanitation (PATS) is being institutionalized through Local Government Academy and formation of district WASH Coordination Committees. Moreover, WASH has been added in the curriculum and training modules of Lady Health Workers and School Health & Nutrition Supervisors. Very recently, Punjab School WASH strategy has been developed, and this is being integrated in the school education road map.

The Punjab Local Government Act 2013 envisages the responsibilities of provision, access, operation and maintenance of drinking water and improved sanitation services to respective councils within their jurisdictions including urban and rural areas. However, overall legal framework for drinking water, sanitation and hygiene is fragmented especially around operation and maintenance (O&M), community participation, and resource allocations criterion.

## ACCESS TO DRINKING WATER

As per the Punjab Multiple Indicator Cluster Survey (MICS) 2014, about 94% of the population uses an improved source of drinking water – 89% in urban areas and 97% in rural. Around 72.3% population of the province uses ground water as drinking water source extracted by hand-pumps or motorised pumps. Overall, 19.2% population has access to tap water; with 39.2% in urban areas, and 9.6% in rural areas. Overall, 80.8% of the population has access to improved water sources located at their premises that is higher in rural areas (84.3%) compared to urban areas (73.7%).

FIGURE 1: IMPROVED WATER- INCOME GROUPS



A review of access to improved water in different income quintiles reveals that the coverage goes down

from the poorest to the richest, and it is more visible in urban areas compared to rural areas, and this is mainly because the richest are using local vendors or bottled water that is considered unimproved under definition defined by Joint Monitoring Programme (JMP) Report that records and tracks progress of WASH in the world.

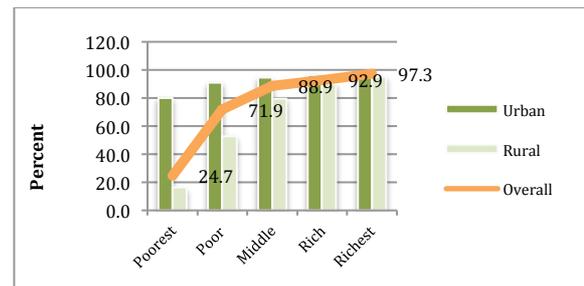
### ACCESS TO WATER QUALITY

As per Vision 2025 document of Government of Pakistan, water contamination and poor water quality have direct and very significant impact on the nation's health with water borne diseases accounting for 70% of all common diseases that impact the national health. This has been further recognized in the newly launched Sustainable Development Goals (SDGs) as one of the key parameters for the newly defined target of safely managed water sources. The technical assessment of water supply schemes in 21 districts in north and central Punjab, conducted by the Pakistan Council of Research in Water Resources in 2011 revealed that more than 80% of the population uses ground water and 43% of functional schemes supplied water for less than 5 hours per day, while 31% supplied between 5-10 hours per day. In 80% of the schemes, there is no water treatment facility, while only 12% provide some treatment. As per draft National Water Quality Monitoring Report 2014-2015, around 35% water sources in Punjab are safe for drinking purposes- free from microbiological and chemical contamination (iron, fluoride, nitrates) and physical characteristics (turbidity, hardness, total dissolved solids) compared to 31% in the rest of the country. Efforts to address water quality issues are being taken into account partly through installation of water filtration plants that does not fall under new definition of safely managed water as given in Sustainable Development Goals (SDGs). The Government of Punjab is committed to establish four centers of excellence and 32 water quality laboratories at the district levels in next few years to strengthen water quality as integral component of safely managed water services.

### ACCESS TO IMPROVED SANITATION

As per Punjab MICS 2014, around 3/4th of the population (75%) is using improved sanitation facilities i.e., urban (92%) and rural areas (67%). The Government of Punjab recognized the framework of Pakistan Approach to Total Sanitation (PATS) with a key focus to end open defecation by 2018. Presently, PATS is being implemented in all 36 districts of Punjab with financing from Government of Punjab as well as collaboration with local and international partners. In 2014/2015, nearly 18% population was practising open defecation compared to 23% in 2011, and it is expected that Punjab shall be open defecation free by 2020. PATS focuses on improving behaviour and creating demands for safely managed sanitation systems that include appropriate sewerage and faecal sludge management.

FIGURE 2: IMPROVED SANITATION- INCOME GROUPS

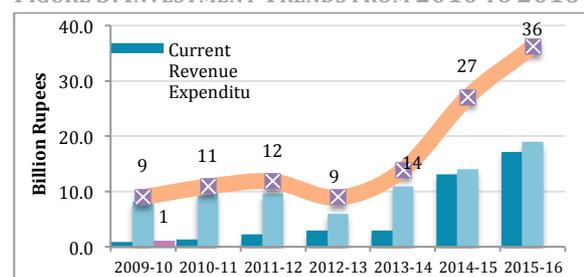


The data of improved sanitation demonstrated that only 24.7% of the poorest population (lowest quintile) is using improved sanitation as compared to 97% of the richest population (highest quintiles). Further, only 33.8% of HHs in urban areas and 49.1% in rural areas indicated their flush connection with septic tanks. The access to sewerage systems is 56.3% in urban areas and 4.1% in rural areas that shows not only huge disparity but also indicates an urgent call for action. Punjab currently does not have any facility for sewage /wastewater treatment except for one in Faisalabad, resulting in major damage to public health, environment and productivity of our cities and downstream agriculture areas. Investment in these facilities is required on a priority basis.

### WASH SECTOR FINANCING

Despite many other development priorities and emergency responses in last few years, the Government of Punjab has steadily been increasing its investments on water supply and sanitation. The investment trends show a three-fold increase from PKR 9 billion in 2009-10 to PKR 26 billion in 2015-16 excluding PKRs 10 billion spent on Saaf Pani during 2015-2016.

FIGURE 3: INVESTMENT TRENDS FROM 2010 TO 2016



In last few years, Government of Punjab realized the significance of strategic investment on sanitation. During 2015-2016, 66% of total WASH budget without Saaf Pani Company was spent on sanitation while this ratio was less than 30% in 2013-2014. However even with addition of Saaf Pani Company, the share of sanitation is 48% indicating greater ownership by political leadership. Similarly, the share of spending in rural areas increased i.e., around 48% of total WASH budget is being spent in rural areas

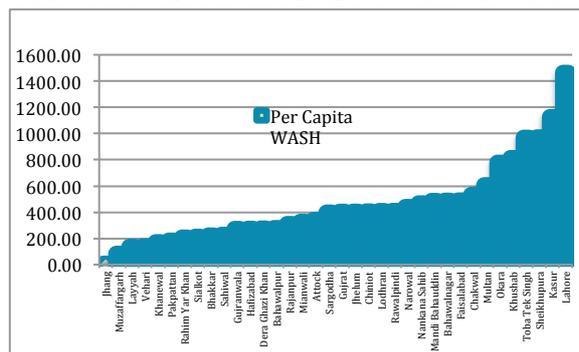
TABLE 1: WASH SPENDING 2015-2016

Expenses	Urban - PKR Billion		Rural - PKR Billion		Total
	Water	Sanitation	Water	Sanitation	
Actual Without Saaf Pani	5.93	13.03	2.95	4.03	25.95
	23%	50%	11%	16%	100%
Actual with Saaf Pani	5.93	13.03	13.1	4.03	36.03
	16%	36%	36%	11%	100%

There is growing emphasis on water quality, evident from spending of PKRs 10 billion on water filtration plants during 2015-2016 in rural areas of Punjab. This spending will be increasing in coming years but still share of WASH in provincial budget is significantly low compared to other social sectors.

A review of 2015-2016 budget of Punjab indicates that expenditures on water supply and sanitation are 1.75% compared to 8.3% on health, 6.8% on education and 3.7% on social protection.

FIGURE 4: PER CAPITA WASH SPENDING - DISTRICTS



Though there is significant progress in terms of reducing inequities between rural and urban as well as water and sanitations sector at the provincial level but there are significant disparities between districts in terms of WASH spending for last three years.

The average per capita spending on WASH in the province during last three years is PKRs 264.

The districts with average spending less than Rs 200 per capita are Jhang, Muzaffargarh, Layyah, Vehari and Pakpattan.

### SUSTAINABLE DEVELOPMENT GOALS

In September 2015, the world adopted the Sustainable Development Goals (SDGs) as continuity of Millennium Development Goals (MDGs). The SDGs were formally launched in Pakistan in October 2015 by the Ministry of Planning, Development and Reforms. On 19th February 2016, Pakistan became the first country in the world whose National Assembly passed a unanimous

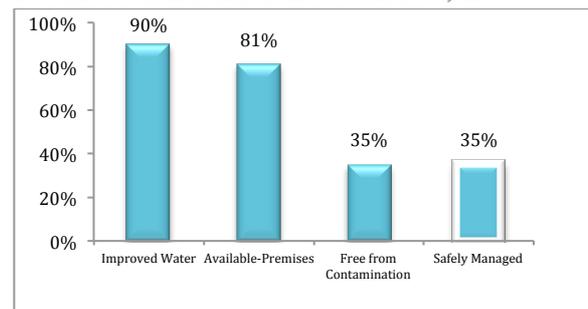
Resolution adopting SDGs Agenda as Pakistan's Development Agenda i.e., Pakistan Development Goals (PDGs). The SDGs have seventeen goals with 169 indicators.

The Goal 6 of SDGs is: ensure availability and sustainable management of water and sanitation for all. The Goal 6 goes beyond access to drinking water, sanitation and hygiene and also addresses the quality and sustainability of water resources. Achieving this Goal, which is critical for the survival of people, and it means expanding cooperation among stakeholders and garnering the support of local communities in improving water and sanitation management.

### SAFELY MANAGED WATER

SDG 6.1: Achieve universal and equitable access to safe and affordable drinking water for all. This is defined as population using improved drinking water source, which is: i) Located on premises; ii) Available when needed; iii) And free of faeca and priority chemical contamination.

FIGURE 5: SAFELY MANAGED WATER PUNJAB



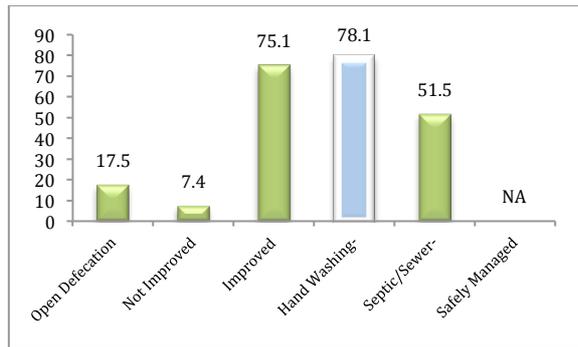
As per JMP, of three indicators of the safely managed water, the lowest indicators will be baseline of the defined area. Though 90% population has access to improved water, around 81% have water within premises and it is available when needed.

The PCRWR 2015 and PHED water quality monitoring data indicated that around 35% population has access to safe drinking water, which is free from contamination. Based on this, the current baseline/ status of safely managed water in Punjab is 35%.

### SAFELY MANAGED SANITATION

SDG 6.2: Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations. This is defined as population using an improved sanitation facility (including a hand washing facility with water and soap) that is not shared with other households and where the excreta are safely disposed in-situ/ on-site or transported and treated off-site.

FIGURE 6: SAFELY MANAGED SANITATION IN PUNJAB

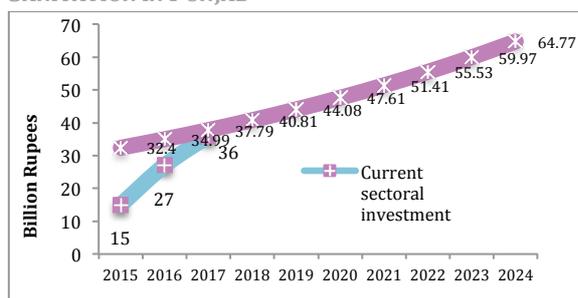


Around 75% population in Punjab has improved sanitation, which is not shared with others, and around 78% population indicated hand washing with soap & water. Apparently, around 51.5% HHs in Punjab are connected either with septic tanks or sewer lines. Considering this on-site treatment, Punjab province has around 51.5% coverage of safely managed sanitation at households levels. However, there is no reliable data information about effective faecal sludge management either on-site or off-site. As per JMP, of three indicators of the safely managed sanitation services, the lowest indicator will be baseline of the defined area. So current baseline/ status of safely managed sanitation in Punjab cannot be set at this stage.

**SDG INVESTMENT NEEDS**

The investment needs to achieve SDGs of water and sanitation are being defined for the province. The WASH Sector Development Plan 2014-2024 identified that annual PKR 40 billion will be required for next 10 years to reach 85% population for safely managed drinking water and 65% population for safely managed sanitation.

FIGURE 7: INVESTMENT NEEDS FOR WATER AND SANITATION IN PUNJAB



The above graph depicts annual amount of funds including 8% inflation that is required for next 10 years. The Government of Punjab spent PKR 36 billion during financial year 2015-2016. Based on the SDG costing tool developed by World Bank and UNICEF, it is estimated that Pakistan will need PKRs 200 billion annually to meet SDG target of water and sanitation, and the calculations for Punjab have not yet been made.

**RECOMMENDATION / WAY FORWARD**

1. Transforming the new SDG development framework into an action framework requires revision in existing policies, resourcing the SDG, redefining monitoring framework and realigning the governance structure. Revision of drinking water policy and sanitation policy for alignment with SDGs is recommended.
2. Review and refine the existing legislative and operational frameworks related to safely managed water and sanitation services especially around availability, operation and maintenance, tariff rationalization including water metering, sludge management and community participation.
3. Devise a formula for distribution of WASH funds at the district and regional (divisional) levels. This formula should include weightage of poverty, WASH access and geographical size of the districts and should be based on newly agreed SDGs baseline with three years rolling investment plans.
4. Institutionalize water quality and waste water/sewage treatment in all stages of project planning, development and execution for ensuring access and availability of safe water and sanitation services in the provinces.
5. Community awareness and mobilization should be initiated for safely managed water and sanitation services with a key emphasis on developing and implementing cost effective techniques/ approaches preferably through public private partnerships and community investment models.
6. The periodic Joint Sector Review for WASH should be institutionalized, by bringing different stakeholders together especially senior political leadership, with a common performance review framework and M&E for WASH as per the SDGs criterion. The Government of Punjab shall calculate the SDG costs for safely managed water and sanitation services by July 2017.

**REFERENCES**

1. Punjab WAS Sector Development Plan 2014-2024, P&D, Government of Punjab- 2016
2. Multiple Indicators Cluster Survey 2014, Punjab Bureau of Statistics, Government of Punjab
3. Pakistan Demographic Health Survey 2012-2013, NIPS, Islamabad
4. Secondary MICS 2014 Analysis for WASH, HUD-PHED, Government of Punjab- 2016
5. Punjab WASH Budget Analysis, 2015-2016, HUD-PHED, Government of Punjab- 2016
6. National Water Quality Monitoring Report 2014-2015, PCRWR, Government of Pakistan
7. Punjab WASH Sector Status Report 2016, HUD-PHED, Government of Punjab- 2016